City of Oxnard

Oxnard Village Specific Plan Project

Final Environmental Impact Report

SCH # 2006101099

Volume II

August 2008

OXNARD VILLAGE SPECIFIC PLAN PROJECT

Final
Environmental Impact Report

Volume II

State Clearinghouse No. 2006101099

Prepared by:

City of Oxnard
Development Services
Planning Division
City of Oxnard Service Center
214 South "C" Street
Oxnard, CA 93030
Contact: Ms. Kathleen Mallory, AICP
(805) 385-7896

Prepared with the assistance of:

Rincon Consultants, Inc.
790 East Santa Clara Street
Ventura, California 93001

August 2008

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Appendix A

Initial Study/
Notice of Preparation
and Responses to the Notice of Preparation

Planning & Environmental Services Division
305 West Third Street
Oxnard, CA 93030
805/385-7858
FAX 805/385-7417

INITIAL STUDY

WAGON WHEEL SPECIFIC PLAN PROJECT
PZ 06-620-03 (General Plan Amendment)
PZ 06-570-05 (Zone Change)
PZ 06-535-2 (Density Bonus)
PZ 06-670-02 (Development Agreement and Owner's Participation Agreement)
PZ 06-540-02 (Planned Development Permit)
PZ 06-300-08 (Tentative Subdivision Map)

October 11, 2006

Introduction

This *Initial Study* has been prepared in accordance with relevant provisions of the *California Environmental Quality Act (CEQA) of 1970*, as amended, and the CEQA *Guidelines* as revised. *Section 15063(c)* of the CEQA *Guidelines* indicates that the purposes of an Initial Study are to:

1. Provide the Lead Agency (i.e., the City of Oxnard) with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration;

2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to quality for a Negative Declaration;

3. Assist the preparation of an EIR, if one is required, by:
   - Focusing the EIR on the effects determined to be significant;
   - Identifying the effects determined not to be significant;
   - Explaining the reasons why potentially significant effects would not be significant; and
   - Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

4. Facilitate environmental assessment early in the design of a project;

5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;

6. Eliminate unnecessary EIRs; and

7. Determine whether a previously prepared EIR could be used with the project.

The City of Oxnard *Threshold Guidelines - Initial Study Assessment* (February 1995) was used along with other pertinent information for preparing the *Initial Study* for this project.

The purpose of the *Threshold Guidelines* is to inform the public, project applicants, consultants and City staff of the threshold criteria and standard methodology used in determining whether or not a project (individually or cumulatively) could have a significant effect on the environment. Furthermore, the *Threshold Guidelines* provide instructions for completing the *Initial Study* and determining the type of environmental document required for individual projects.

Determining the significance of environmental impacts is a critical and often controversial aspect of the environmental review process. It is critical because a determination of significance may require that the project be substantially altered, or that mitigation measures be readily employed to avoid the impact or reduce it below the level of significance. If the impact cannot be reduced or avoided, an Environmental Impact Report (EIR) must be prepared. An EIR is a detailed statement that describes and analyzes the significant environmental impacts of a proposed project, discusses ways to reduce or avoid them, and suggests alternatives to the project, as proposed. The preparation of an EIR can be a costly and time-consuming process.

Determining the significance of impacts is often controversial because the decision requires staff to use their judgment regarding a subject that is not clearly defined by the law. The State CEQA *Guidelines* define the term "significant impact on the environment" as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. However, there is no iron-clad definition of what constitutes a substantial change because the significance of an activity may vary according to location.

To help clarify and standardize decision-making in the environmental review process, Oxnard has developed thresholds of environmental significance. Thresholds are measures of environmental change that are quantitative for subjects like noise, air quality, and traffic; and qualitative for subjects like aesthetics, land use compatibility, and biology. These thresholds are used in the absence of other empirical data to define the significance of impacts. For some projects, however, special studies and/or the professional judgment of City staff may enter into the decision-making process. Therefore, Oxnard's thresholds are intended to serve as guidelines, and to augment existing CEQA provisions governing the definition of significance.

The City's environmental thresholds will be periodically updated as new information becomes available, or as standards regarding acceptable levels of environmental change are reevaluated. For example, the air quality thresholds adopted by Oxnard were established through State and Federal legislation. These standards and the methodology used to compute them may change over time. When this occurs, the City will evaluate the data and, if necessary, modify the thresholds to reflect improved awareness.

The City is completing a General Plan Update for which a citywide EIR will be prepared and circulated in 2007. The two EIR's should not have conflicting information, and this EIR will be using environmental setting data, including the citywide traffic model, developed for the General Plan Update EIR.

When other agencies have jurisdiction over a given site, the project proponent will have to meet the design, mitigation, and monitoring requirements imposed by those agencies, as well as any additional requirements established by the City of Oxnard.

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INITIAL STUDY

CITY OF OXNARD

INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

1. Project Title: Wagon Wheel Specific Plan Project, Case Nos. PZ 05-600-9, PZ 06-620-03 (General Plan Amendment); PZ 06-570-05 (Zone Change); PZ 06-535-2 (Density Bonus); PZ 06-670-02 (Development Agreement and Owner's Participation Agreement); PZ 06-540-02 (Planned Development Permit); and PZ 06-300-08 (Tentative Subdivision Map)

2. Lead Agency Name and Address: City of Oxnard
   Planning & Environmental Services
   305 West Third Street
   Oxnard, CA 93030

3. Contact Person/Phone Number: Kathleen Mallory, AICP, Contract Planner, (805) 512-9800

4. Project Location: The project site is located near the northern edge of the City of Oxnard, and is bounded by Highway 101 to the north, Oxnard Boulevard to the east, the Southern Pacific Railroad and El Rio Drain to the south, and North Ventura Road to the west. Site Assessor Parcel Numbers are 139-0-022-01, 139-0-022-03, 139-0-022-04, 139-0-022-12, 139-0-022-15, 139-0-150-13, 139-0-150-11, 139-0-170-01, 139-0-022-06, 139-0-170-02, 139-0-170-03, 139-0-161-01, 139-0-170-08, 139-0-170-04, 139-0-170-05, 139-0-162-08, 139-0-162-04, 139-0-162-04, 139-0-162-07 and 139-0-161-02. The project's location is illustrated in figures 1 and 2. Regional access to the site is provided by the Ventura Freeway (U.S. Highway 101) and Pacific Coast Highway (State Route 1).

5. Project Applicant Name and Address: Daly Owens Group
   31304 Via Colinas, Suite 103
   Westlake Village, CA 91362

6. General Plan Designation: Commercial Regional (CR)

7. Zoning: General Commercial Planned Development (C-2-PD) and Commercial and Light Manufacturing (CM)

8. Description of Project: The proposal involves the phased redevelopment of all existing uses on the 64-acre site with a mixed-use commercial and residential project. Figure 3 shows the conceptual configuration of the project and Figure 4 provides an overview of the proposed land uses as contained in the proposed Specific Plan for the project. Proposed land uses include 34.8 acres of High Density Residential (up to 30 dwelling units per acre); 0.6 acres of Live/Work townhomes (up to 30 dwelling units per acre); 3.6 acres of Very High Density Residential (up to 70 dwelling units per acre); 3.3 acres of High-Rise Residential (up to 100 dwelling units per acres); 5.4 acre of Mixed Use (up to 70 dwelling units per acre); 2.6 acres of Village Commercial; 0.6 acre of Public Facilities (transit center);

2.6 acres of Community Amenities (parks and recreation facilities); and 10.5 acres accounting for major streets.

The residential component would include five housing types as follows: 1) three-story townhomes; 2) three-story live work town homes; 3) four-story condominiums above two levels of subterranean parking; 4) four-story mixed use buildings with two or three stories of residential condominiums above commercial retail/office uses with subterranean parking; and 5) two 25-story residential towers. A total of 1,500 attached residential units are proposed. Building heights for the project would be up to 43 feet for the townhouse buildings, 40 feet for the live/work buildings, 60 feet for the four-story condominiums and mixed use buildings, and 270 feet for the residential high-rise buildings. Fifteen percent of the total units would be designated as "affordable housing" and would meet the income criteria for very low - and moderate-income families.

The commercial component would consist of 47,000 square feet of neighborhood serving commercial retail and small commercial office space. Approximately 24,000 square feet would be dedicated to one- or two-story community retail with a building height of up to 35 feet, and 23,000 square feet would be dedicated to small commercial office/retail located below the live/work townhouses and the mixed use condominiums.

The project would also provide a 1.7-acre "community village green" and a 0.9-acre neighborhood park. In addition, various smaller pocket parks, gardens and plazas as well as landscaped pedestrian corridors connecting different areas of the site would also be provided. The parks would provide a variety of public recreational amenities, including, but not limited to, a swimming pool and pool house, tot-lot, open turf areas and barbeque and picnic areas. The four-story condominiums would include interior courtyards and private recreation facilities. The high-rise towers would also include private recreational facilities.

Primary access points to the site would be from the east via North Oxnard Boulevard and from the west via North Ventura Road. The existing Wagon Wheel Road would be abandoned, renamed ("Village Parkway") and redirected through the center of the project, connecting the two access points. The eastern access at Oxnard Boulevard would be upgraded to meet Caltrans construction designs with a four-way signalized intersection connecting to the Esplanade Mall.

Two roundabouts would be integrated into the Village Parkway at the transition between the proposed commercial center and residential communities and at the western neighborhood park and townhouse area. In order to provide a smooth transition from Highway 101 into the Village project, a continuous flow off-ramp would be designed with two right-turn lanes and two left-turn lanes at North Ventura Road.

The project would include a sub-transportation center with approximately 50 designated parking stalls and a bus stop for SCAT and VISTA bus services. Shuttle service may also connect to Riverpark, The Esplanade, the OTC and Metrolink, or other local destinations.

The project would include closing the existing on-site mobile home park. Closure procedures would be consistent with the City of Oxnard's Mobile Home Park Closure Ordinance (Ordinance No. 2097). In addition to the mobile home park, the site is entirely built out with extensive commercial development and infrastructure. Virtually all onsite structures and infrastructure would be removed.

Fifteen percent (15%) of the total units would be designated as "affordable housing" and would meet the income criteria for very low and moderate income families.

Entitlements required for the project include an amendment to the Oxnard General Plan, a Zone Change, adoption of a Specific Plan, a Development Agreement and Owner's Participation Agreement for the Mobile Home Park Closure, a Density Bonus, a Planned Development Permit, and a Tentative Subdivision Map.

9. Surrounding Land Uses and Setting: Surrounding land uses include the 702-acre RiverPark Towne Center master-planned community to the north across Highway 101; the Esplanade Shopping Center and the Financial Plaza to the east, which includes two high-rise buildings; an existing low-density residential area known as South Bank across the Southern Pacific railroad tracks and El Rio Drain to the south; and Ventura Road and the Santa Clara River to the west.

10. Other Public agencies whose approval is required (e.g., permits, financing approval, or participating agreement): California Department of Transportation (Caltrans), Regional Water Quality Control Board, and County of Ventura Environmental Health Division.

ENVIRONMENTAL FACTORS AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

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

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 will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will 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" impact 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 potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

______________________	______________________
Signature	October 11, 2006
Susan L. Martin, AICP	______________________
Planning and Environmental Services Manager	For

Environmental Checklist

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. <u>AESTHETICS</u> – Would the project:				
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 which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

a. Oxnard Boulevard, which borders the site to the east, serves as a view corridor to the foothills and mountains to the north. The City, in conjunction with Ventura County and the City of Port Hueneme has selected additional routes for the City's Scenic Highway System, including portions of Ventura Road and US Highway 101 that are adjacent to the project site and provide views of and across the site. The City's Community Design Element identifies views of the topography surrounding the City as scenic resources. Existing structures on the site are generally no more than two stories. The proposed structures range from 35 feet to 270 feet (25 stories) in height and have the potential to obstruct views of the mountains. Impacts associated with obstruction and alteration of views are **potentially significant.**

b. The project site does not include scenic resources such as heritage trees, or rock outcroppings, and the site is not located along a state-designated scenic highway. However, the site is located along City-designated scenic routes, and several structures, such as the Wagon Wheel restaurant and hotel, are over 50 years old and may be of historic interest due to their association with people and events important to the development of Oxnard in the mid-20th Century. As a result, impacts to scenic resources are **potentially significant** and further analysis is warranted.

c. Buildout of the Specific Plan would change the visual condition of the site through demolition of the existing structures and the construction of a new project. The project includes two 20 to 25-story residential towers that would be 270 feet in height. These towers would be substantially taller than the existing buildings on the site, and slightly shorter than Oxnard's tallest building, which is 22 stories and located approximately ¾-miles southeast of the project site. (On average, residential towers are 30% shorter than commercial buildings, due to floor heights. Thus, conservatively assuming that the proposed residential building would be 25-stories, it is roughly equivalent to an 18-story commercial tower.) Much of the other proposed development would be three- to five-stories in height, which would be a further change from the existing development profile. Although the site is currently urbanized, and the existing built environment is not considered to be of high aesthetic value, the Specific Plan would alter the type and appearance of development on the site, and would introduce a new scale of development to the immediate neighborhood. In addition, proposed structures would be substantially taller than most buildings in the immediate vicinity and would cast shadows on many of the surrounding properties.

Finally, the City considers Highway 101 and the southbound offramps that lead directly to the site to be important "gateways" to Oxnard. The Community Design Element states that "Oxnard Boulevard, and areas adjacent to the Ventura Freeway, are in need of revitalization and visual upgrading." Community Design Implementation Measure #2 calls for "special design treatments and focal points for City gateway entrance areas." The project's treatment of the areas adjacent to the offramps, as well as the appearance, design and scale of the project itself, will affect the quality of the gateway experience and would be subject to the guidance contained in the Community Design Element.

The changes described above would represent a **potentially significant** impact to the existing visual character or quality of the site and its surroundings. These issues will be further analyzed in an EIR.

d. Buildout of the Specific Plan would create new sources of light and glare, due largely to the increased height and scale of development as well as the change in character to a mostly residential use. Although development would be expected to comply with City lighting standards, lighting and glare could create **potentially significant** impacts to adjacent land uses because of the departure from the scale of existing development on and around the project site. The issue of light and glare will be further analyzed in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. <u>AGRICULTURAL RESOURCES</u> -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, 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) Involve other changes in the existing	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES -- Would the project:				
environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				

a-c. The project site is entirely urbanized. There is no land used or designated for agriculture, or enrolled in a Williamson Act contract, within or adjacent to the project site. The nearest farmed area is approximately ½-mile from the site, across the Santa Clara River. **No impacts** are anticipated.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY -- Would the project:				
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 which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

a. The proposed Specific Plan is located within the South Central Coast Air Basin, which is within the jurisdiction of the Ventura County Air Pollution Control District (APCD). According to the APCD 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. Project implementation would result in a net increase of 1,358 residential units on the project site (1,500 residential units proposed minus 142 existing residential units to be demolished).

Based on the current average household size in the City of Oxnard of 3.883 persons per residential unit (California Department of Finance, 2006), this would generate a net population increase of about 5,273 persons. (The Department of Finance's average household size for Oxnard is based on all housing types in the City, and is also higher than those for other cities in Ventura County. As all residential units in the project would be in multi-family buildings, the actual household size for the project may be lower. Thus this is considered a "worst case" scenario.) In addition, the increase in commercial square footage associated with the project would add new jobs. Air quality impacts associated with this increase in population, beyond that included within the AQMP, are considered **potentially significant** and an analysis of possible impacts will be included in the EIR.

b, c. The City of Oxnard is located in the Ventura County portion of the South Central Coast Air Basin. The Ventura County Air Pollution Control District (APCD) is the designated air quality control agency in the Ventura County portion of the Basin. The Ventura County portion of the South Central Coast Air Basin is a state and federal non-attainment area for ozone and a state non-attainment area for suspended particulates (PM_{10}). The proposed project would generate temporary construction emissions and long-term emissions primarily associated with increased vehicle trips and energy consumption. Impacts to air quality associated with temporary and long-term emissions, including cumulative impacts, are considered **potentially significant** and a further analysis will be conducted as part of the EIR.

d. The closest sensitive receptors to the project site are residences located across the railroad tracks, immediately south of the project site. Demolition of the existing structures and construction of the proposed project would generate temporary increases in emissions of ozone precursors and fine particulates (dust). This would temporarily increase air pollutant concentrations onsite and on adjacent residential properties. In addition, asbestos-containing materials and lead-based paint could be present in the existing site structures, which could be released during demolition. Impacts are expected to be **potentially significant unless mitigation incorporated** and will be analyzed in the EIR.

e. The mix of land uses could result in the placement of odor generating uses (such as restaurants and their waste disposal areas in proximity to odor sensitive residential and recreational uses). Impacts associated with odors are expected to be **potentially significant unless mitigation incorporated** and will be examined in the EIR**.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
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, or 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?	☐	☐	☒	☐
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-c. The project site is currently developed with urban uses. Nearly all surfaces are paved or built upon. Vegetation on site consists of ornamental trees, shrubs, and groundcovers planted in parking lots, along street frontages and near some store fronts. These planted areas are small and scattered on the site. Because of the ornamental nature of the vegetation and scattered locations on-site, this vegetation has very low biological value. Adjacent areas on all sides of the site are also urbanized.

Three site surveys for biologic resources were conducted between 1993 and 1995, and the results were published in the 1999 Draft EIR for a prior specific plan proposed for the site which was not adopted. The California Department of Fish and Game's Natural Heritage Division Natural Diversity Data Base was also searched at that time for the recordation of any sensitive element occurrences. The only sensitive habitat identified within the planning area was eucalyptus groves which are sometimes used seasonally by monarch butterflies (Danaus plexippus). However, in surveys conducted in December of 1995, during the species' most active season locally, no monarch butterflies or clusters were observed at the eucalyptus groves.

The surveys and research conducted for the 1999 Draft EIR concluded that the project site is unsuitable for most native wildlife species, as the planning area has very low wildlife habitat value. Because of the lack of native vegetation or habitats on the site, only a few common species (primarily birds) have adapted to the urbanized conditions and utilize the site. Several species of gulls were observed on-site feeding out of the dumpsters behind the retail stores. European house sparrows and house finches were also observed to occasionally forage in the ornamental plantings.

In summary, the direct effect of the project on biologic resources would be to replace the existing ornamental planting, buildings, and parking areas with similar but newer urban uses and landscaping. Therefore, the project site would be transformed from one urban landscape to another. Project construction would occur in phases over the course of build out of the specific plan. As such, a temporary loss of urban habitat may occur during construction. However, since the project site has been previously disturbed from a natural state to its current developed condition, impacts to biological resources would be considered **less than significant.**

There are no wetlands or watercourses on or directly adjacent to the site. However, the Santa Clara River, a perennial watercourse which provides high quality habitat for a range of species including special status species, is proximal to the site, across Ventura Road to the west. Since the project site is not directly adjacent to the river, the project would have little or no direct impact on the river and its associated biological resources, with the exception of runoff from the site that would reach the riparian corridor. Any potential indirect impacts to biologic resources from the quantity and quality of runoff from the site, both during and after project construction, would be addressed through adherence to applicable federal, state and local water quality and runoff regulations and policies. Impacts to biological resources associated with the Santa Clara River are expected to be **less than significant.**

d. The project site is almost entirely urbanized, and supports no riparian corridors or substantial habitat areas, including wildlife corridors. Impacts to wildlife corridors would be **less than significant.**

e. The City of Oxnard's General Plan, Conservation and Open Space Element, includes policies that require protection of unique biological habitats from development. However, as the project site is almost entirely urbanized, and supports no unique biological habitat or mature native trees, redevelopment of the site as proposed would not conflict with local policy or ordinances. Impacts would be **less than significant.**

f. The site is not the subject of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **No impacts** are anticipated**.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
V. CULTURAL RESOURCES -- Would the project:				
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 as defined in §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. No designated historic resources are located on or adjacent to the project site. However, a number of structures on the site are more than 50 years old. Several of them, most notably those associated with the Wagon Wheel Motel and restaurant complex, which was built in the 1940s and 1950s, may be of historic interest due to their association with people and events important to the development of Oxnard in the mid-20th Century. As a result, impacts are **potentially significant** and will be further studied in the EIR.

b-d. The project site is within a highly urbanized area and has been extensively graded to accommodate past and present onsite development. There are no known archaeological or paleontological resources or human remains present onsite. In the unlikely event that such resources are unearthed during excavation and grading, adherence to applicable regulatory requirements, including state laws and policies of the Conservation Element pertaining to the handling and treatment of such resources, would ensure that impacts would be **less than significant.** In addition, the City will consult with the California Native Heritage Commission pursuant to Senate Bill 18. Further analysis of this issue in an EIR is not warranted.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. <u>GEOLOGY AND SOILS</u> – Would the project:				
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?	☐	☐	☒	☐
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 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, creating substantial risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

a (i). No known active faults or Alquist-Priolo Zone areas are located in the City of Oxnard (General Plan EIR, 1990). Therefore, the potential for impacts related to fault rupture are considered **less than significant** and further discussion of this issue the EIR is not warranted.

a (ii). As with any site in the southern California region, the project site is susceptible to strong seismic ground shaking in the event of a major earthquake. Onsite structures would need to be constructed to withstand potential peak accelerations as defined by the California Building Code (CBC). In addition, project construction would be subject to review by City building and safety officials. Nevertheless, ground shaking may result in **potentially significant** impacts to proposed structures. Therefore, issues related to ground shaking will be further examined in the EIR.

a (iii). The project area is subject to moderate to high liquefaction potential during seismic ground shaking (California Seismic Hazards Zones, Oxnard Quadrangle, 2002). Therefore, impacts from liquefaction are considered **potentially significant** and issues related to liquefaction will be further examined in the EIR.

a (iv). According to Oxnard Quadrangle of the California Seismic Hazards Zones Map (2002), no areas have been designated as "zones of required investigation for earthquake-induced landslides…[but] the potential for landslides may exist locally." As the project site and surrounding areas are relatively level, impacts from landslides are considered **less than significant** and do not require further examination in the EIR.

b. According to the City of Oxnard 2020 General Plan (1990), soils in the City are not classified as having high erosion potential. Grading and construction activities on the project site would be subject to standard erosion control measures required by the City of Oxnard pursuant to state and federal law. Therefore, impacts associated with erosion would be considered **less than significant** and further discussion of this issue in the EIR is not warranted. The Hydrology and Water Quality section of the EIR will discuss potential site drainage, stormwater runoff and water quality issues and provide mitigation measures as appropriate.

c,d. The project site is in an area susceptible to approximately 0.05 feet of soil subsidence per year (General Plan Safety Element, 1990). As discussed under items a (ii) through a (iii), the project site may have conditions that pose unusual risks relating to soils, liquefaction, or other potential secondary seismic hazards. Impacts would be **potentially significant** and issues related to subsidence and expansive soils will be further examined in the EIR.

e. The proposed project would be connected to the local wastewater treatment system. Septic systems would not be used. **No impact** would occur and further analysis of this issue in the EIR is not warranted.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. <u>HAZARDS AND HAZARDOUS MATERIALS</u> - Would the project:				
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 ¼ mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous material 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. The proposed residential and commercial uses would not involve the use of large quantities of hazardous materials. Impacts associated with the routine transport, use, or disposal of hazardous materials are considered **less than significant** and further discussion of this issue in the EIR is not warranted.

b, d. The project site is not included on any of the hazardous material site lists compiled pursuant to Government Code Section 65962.5. However, according to the Phase I Environmental Site Assessment conducted by SECOR on February 20, 2004, the Wagon Wheel Industrial Properties, and the Wagon Wheel Hotel, motel and trailer park, all of which would be demolished as part of project implementation, may have been constructed with asbestos-containing materials and lead-based paint. In addition, several former site uses have involved the release and reported remediation of hazardous materials. Project grading and development have the potential to result in exposure of onsite workers and future residents to hazardous materials. Therefore, impacts related to the release of hazardous materials into the environment are considered **potentially significant unless mitigation incorporated** and this issue will be further examined in the EIR.

c. The closest school is Rio Del Norte Elementary schools, which is just outside of the ¼ mile radius. Pacifica High School, located approximately 1.9 miles southeast of the project site at 600 East Gonzales Road. **No impact** would occur and further analysis of this issue in the EIR is not warranted.

e, f. Pursuant to the Code of Federal Regulations' *Standards for determining obstructions* (14 CFR, Title 77), a structure would be an "obstruction to air navigation if it is of greater height than…200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport." The closest airport is the Oxnard/Ventura Airport, approximately two nautical miles southwest of the site. The Point Mugu Naval Air Station does not have any operations over the project site. Thus the siting of 270-foot tall towers at the project site would be a **potentially significant impact** and will be further analyzed in the EIR.

g. The proposed project involves infill residential and commercial development in an urbanized area of Oxnard. Provisions for site access are included in the project proposal, and project implementation would not interfere with emergency response or evacuation. **No impact** would occur and further analysis of this issue in the EIR is not warranted.

h. The project site is within a highly urbanized area of Oxnard. The site is not subject to significant risks associated with wildland fires. **No impact** would occur and further analysis of this issue in an EIR is not warranted.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
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 or 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 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?	☐	☒	☐	☐
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	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
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, c, f. The project site is currently urbanized and almost entirely paved with impervious material. Development of the proposed project would involve large areas of impervious surfaces, but because parks and other green spaces are proposed, the net result would be a decrease in impervious surfaces. Nevertheless, full buildout of the project site has the potential to increase the amount and quality of surface runoff, and impacts are considered **potentially significant unless mitigation incorporated**. This issue will be assessed further in the EIR.

b. The City of Oxnard is underlain by the Oxnard Plain Basin, which is currently being overdrawn (2020 General Plan EIR, 1990). The basin is one of the City's primary water sources. Development of the project would increase water demand on the site, and therefore may affect the supply of groundwater. This is considered a **potentially significant** impact and will be assessed further in the EIR.

d, e. Project-related runoff could exceed the capacity of the planned drainage system and require new or expanded facilities to be developed. Impacts are considered **potentially significant unless mitigation incorporated.** In order to determine whether the system's capacity is adequate, this issue will be further analyzed in the EIR.

g-j. The project site is not located within a flood, tsunami or seiche hazard zone (2020 General Plan, 1990). Any evaluation of the status of the levees will be evaluated in the EIR. Impacts are considered **less than significant** and do not warrant further study in an EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the proposal:				
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 an applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a. The project site is bordered by major roads to the west, north and east, and by railroad tracks on the south. Replacement of the varied uses on the site with a mixed-use neighborhood would not physically divide an established community, as uses surrounding the site are varied and distinct, and neither continuity nor access would be degraded. Impacts to the mobile home may be significant depending upon the mobile home relocation plan. Access would continue to be provided through the site and would be upgraded. Impacts would be **less than significant.**

b. Implementation Measure 3 of the 1990 General Plan calls for preparation and adoption of a specific plan for the Wagon Wheel area, which is included in the project's application materials. The site is also within the Historic Enhancement and Revitalization of Oxnard (HERO) redevelopment area. The HERO Area provides a mechanism by which the Community Development Corporation can utilize a range of projects and programs to alleviate blight conditions.

The General Plan contains land use, circulation and transportation, housing, open space, community design, noise and other policies which are applicable to the proposed project. As the proposed project is inconsistent with the land use designation and zoning in several respects, including residential density and building height, the project includes a General Plan Amendment to change the site's land use designation from Commercial Regional to Specific Plan which would allow a range of uses including residential densities of up to 100 units per acre, Mixed Use, Commercial, Public Facilities (transit center) and Community Amenities (parks and recreation facilities). A Development Agreement is also proposed for the site, which would allow for departures from Zoning Ordinance requirements such as building height and residential density.

The General Plan requires adoption of a specific plan for the Wagon Wheel area. If the Specific Plan, which would have to be found consistent with the General Plan, is adopted, the project would be expected to comply with the General Plan policies. Nevertheless, due to the potential for conflicts with adopted policies the EIR will discuss the consistency of the proposed project with applicable plans and policies, as well as the proposed changes to land use designations compared to the development scenario envisioned in the General Plan. Impacts to land use and locally adopted polices are considered to be **potentially significant unless mitigation is incorporated**.

c. No habitat conservation plans or natural community conservation plans apply to the project site. **No impacts are anticipated.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
X. <u>MINERAL RESOURCES</u> -- Would the project:				
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 fully urbanized and is not used for mineral extraction. However, the site is located in an area identified as "non-designated MRZ-2" in the City's General Plan and Mineral Resources Management Plan. This indicates that potentially useable sand and gravel deposits associated with the adjacent Santa Clara River channel may exist underneath the developed site. Because the area is not in the designated MRZ-2 area, land use controls that the City uses to retain flexibility in the designated MRZ-2 area for mineral extraction do not apply. Thus the City has determined that any loss of relatively easy access to possible mineral deposits beneath the site would be **less than significant.** The issue does not require further study in an EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XI. NOISE – Would the project result in:				
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 above levels existing without the project?	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity 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?	☐	☐	☒	☐

a,b,d. Project site preparation and construction activities would generate temporary increases in noise onsite and at adjacent properties, including groundborne vibrations/noise. Noise levels during construction can be in the 78-88 dBA range during peak activity periods (U.S. Environmental Protection Agency, 1971). Such levels are substantially higher than ambient noise levels in the site vicinity and would be a source of temporary noise annoyance to adjacent residents. Impacts are **potentially significant** and will be addressed in the EIR.

c. The main sources of noise at the project site are traffic on U.S. Highway 101 and noise associated with trains on the Southern Pacific Railroad, which would affect residents of the proposed new development. The increase in traffic levels within and adjacent to the project associated with the increased intensity of development would also increase noise levels to sensitive receptors on adjacent roads. These impacts are considered **potentially significant unless mitigation incorporated** and will be studied further in the EIR.

e, f. The project site is not in the vicinity of any public or private airport (the Oxnard airport is approximately 2.5 miles from the site). Therefore, impacts related to aircraft noise would be **less than significant**. Further discussion of this issue in the EIR is not warranted.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. POPULATION AND HOUSING — Would the project:				
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. Project implementation would result in a net increase of 1,358 residential units on the project site (1,500 units proposed minus the 142 existing units, as of September 2006, to be demolished). Based on the current average household size in the City of Oxnard of 3.883 persons per unit (California Department of Finance, 2006), this would generate a net population increase of about 5,273 persons. (See note under Item III *Air Quality* regarding the estimated average household size.) In addition, the increase in commercial square footage associated with the project would add new jobs. The population of Oxnard as of January 1, 2006 was 189,990 (California Department of Finance, 2006). Based on this number, the project would accommodate a population increase within the City of approximately 2.8 percent. The current General Plan projection of 163,000 has been exceeded due to larger than expected household sizes. Population growth impacts associated with the project are **potentially significant** and further analysis of this issue in the EIR will be conducted.

b, c. The project would involve the closing of the on-site mobile home park, which as of September 2006, had 142 out of 169 spaces occupied. A mobile home closure report will be prepared for this component of the project. This would displace both the housing units provided by the facility and the onsite population. Although the project includes 1,500 housing units, and at least 15% or 225 housing units of those reserved as “affordable” units meeting the City’s very low- and moderate-income price restrictions, impacts resulting from the loss of units and displacement of residents are considered **potentially significant unless mitigation incorporated** and will be analyzed in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	☐	☒	☐	☐

a (i-ii, v). The introduction of 1,358 net new units and 47,000 square feet of commercial development would increase the need for public services and could require new or expanded facilities to provide those services. The introduction of new high rise buildings in an area that does not have many high rises also has the potential to introduce new service demands on the area. Impacts are **potentially significant unless mitigation incorporated** and will be examined further in the EIR.

a (iii). The developer 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." Therefore, since payment of these fees is mandatory, impacts to school capacity must be considered **less than significant.**

a (iv). The project proposal includes two public parks, one that is 1.7 acres and one that is 0.9 acres, and several smaller green spaces. The City of Oxnard requires that, as a condition of approval of any residential subdivision, a developer shall either contribute land for the development of park sites or pay fees for the acquisition and development of park sites. The amount of parkland required for residential developments is based on a factor of 2.5 acres per 1,000 residents (2020 General Plan, 1990). Therefore, if the amount of parkland included in the project plans, combined with existing City parks is less than the required parkland for residential developments, impacts would be considered **potentially significant unless mitigation incorporated.** This issue will be further discussed in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. RECREATION --				
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,b. Project implementation would result in a net increase of 1,370 residential units on the site and an associated population increase of about 5,320 persons. The project proposal includes two public parks, one that is 1.7 acres and one that is 0.9 acres; several smaller green spaces and private recreational facilities. As discussed under item a (iv) of Section XIII, the developer is responsible for meeting the City's requirement of 2.5 acres of parkland for every 1,000 residents. If the proposed project does not include adequate parkland to meet the City's requirement, the developer is required to pay a fee to offset the demands of the increased population onsite on offsite neighborhood and regional recreational facilities. The project may result in environmental impacts from pressure on offsite facilities as well as construction of onsite facilities. Impacts are considered **potentially significant unless mitigation incorporated** and will be further examined in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. TRANSPORTATION / TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	X			
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	X			
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?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?		X		
e) Result in inadequate emergency access?		X		
f) Result in inadequate parking capacity?		X		
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?		X		

a,b,f. The proposed project has the potential to increase traffic in the project area. As proposed density for the site goes beyond what is anticipated in the General Plan, traffic generation and parking demand are expected to be higher than what would result from development under the current land use and zoning designations. These impacts are considered **potentially significant unless mitigation incorporated** and will be further evaluated in the EIR. A traffic study will be conducted to analyze and evaluate the project's potential impacts to traffic, circulation, parking, and access and will be coordinated with the General Plan update traffic model.

c. The Oxnard Airport is located at 2889 West 5th Avenue, approximately 2.5 miles southwest of the project site. Over 90 percent of all aircraft approaches to the Oxnard Airport are in an east to west direction over the City of Oxnard (2020 General Plan, 1990). The project site is not located in the airport clear zone (2020 General Plan, 1990), and therefore, the project is not expected to change air traffic patterns. Impacts to air traffic would be **less than significant**. Further discussion of this issue in an EIR is not warranted.

d,e. The project site is located directly adjacent to two off ramps from US Highway 101. These ramps would be used to access the site. With project implementation, traffic would be increased to and from the site, and a higher concentration of residents potentially needing emergency services would be introduced. Roadway and access plans would be reviewed by the City's Development Services Division, Public Works Department and Fire Department, and in some locations by the California Department of Transportation (Caltrans). While review and approval by these agencies would help to ensure safe access and road design, these **potentially significant but mitigable** impacts would also be examined in the EIR.

g. The City's Circulation Element includes policies and identifies programs to encourage the use of alternative transportation in Oxnard. These include City-sponsored programs such as improvements to the bus system as well as requirements for provision of facilities in new development. The project proposal includes a sub-transportation center with 50 parking spaces and stops for SCAT and VISTA bus services. In addition, the Oxnard Transportation Center, located 2.25 miles south of the project site, is used by Amtrak and Metrolink trains, as well as Greyhound, SCAT and VISTA buses. A Class II (on-road, striped for bicycle travel) bicycle lane is proposed through the site, linking Oxnard Boulevard and Ventura Road and connecting to proposed (by the City, i.e. identified in the City's Bicycle Master Plan) pedestrian/multi-use trails on those roads. Nevertheless, due to the substantial scale and high proposed residential density of the project, impacts are **potentially significant unless mitigation incorporated** and further study in an EIR is warranted.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. <u>UTILITIES AND SERVICE SYSTEMS</u> -- Would the project:				
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?	☐	☒	☐	☐

a-c, e. Development of the proposed project is expected to increase the generation of wastewater as the proposed use of the site would be more intense than the current use, particularly in terms of residential density as well as irrigated landscaping. Improvements to existing wastewater treatment facilities and stormwater drainage facilities may be required. Impacts associated with storm water and wastewater generation and treatment are considered **potentially significant unless mitigation incorporated** and will be studied further in the EIR.

d. The proposed project would increase the number of residences in the area which would increase demand for water in the area. Impacts to water resources are **potentially**

significant and this issue will be further evaluated in the EIR. The analysis will include a water supply assessment pursuant to Senate Bill (SB) 610. SB 610 requires large development projects in California to assess the adequacy of the anticipated water supply to serve the project.

f. Solid waste collection and disposal services at the project site would be provided by the Oxnard Solid Waste Division. Once collected, solid waste is transported to the Del Norte Regional Recycling and Transfer Station before being sent to area landfills. Development of the proposed project is expected to substantially increase the amount of solid waste generated on the site as compared to existing uses. Impacts associated with solid waste generation and recycling are considered **potentially significant unless mitigation incorporated** and will be studied further in the EIR.

g. The project would be required to comply with federal, state, and local statutes and regulations related to solid waste. Nonetheless, as measures may be required to achieve compliance, impacts are considered **potentially significant unless mitigation incorporated** and will be studied further in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, 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. The project site is located within an urbanized area that lacks native biological habitats, as discussed under item IV, *Biological Resources*. As discussed under item V, *Cultural Resources*, no officially designated historic or prehistoric resources would be affected by project implementation. However, several existing structures may have historic importance. Therefore, the proposed demolition of all structures on the site is a **potentially significant** impact that will be studied further in an EIR.

b. Cumulative impacts may occur in the issue areas where potentially significant impacts are identified in the Initial Study. Such cumulative impacts would be **potentially significant** for these issues and will be addressed in an EIR.

c. The proposed project has the potential to create environmental effects that could significantly affect human health or safety (refer to Items III, *Air Quality*, VII, *Hazards and Hazardous Materials* and XV, *Transportation/Traffic*. Impacts are **potentially significant** and will be studied further in an EIR.

References

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NOTICE OF PREPARATION

To: Responsible and Trustee Agencies (Distribution List is attached to this notice)

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project, Oxnard, California.

Lead Agency:

Agency Name: City of Oxnard
Street Address: 305 West Third St.
City/State/Zip Code: Oxnard, CA 93030
Contact: Kathleen Mallory

The City of Oxnard will be the Lead Agency and will prepare an environmental impact report (EIR) for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after the receipt of this notice.

Please send your response to Kathleen Mallory, AICP, Project Planner, at the address shown above. Agency responses to this NOP should include the name, address, and phone number of the person who will serve as the primary point of contact for this project within the commenting agency.

Project Title: Wagon Wheel Specific Plan Project

Project Location: The project site is located near the northwestern edge of the City of Oxnard, and is bounded by Highway 101 to the north, Oxnard Boulevard to the east, the Southern Pacific Railroad and El Rio Drain to the south, and North Ventura Road to the west. Site Assessor Parcel Numbers are: 139-0-022-01, 139-0-022-03, 139-0-022-04, 139-0-022-12, 139-0-022-15, 139-0-150-13, 139-0-150-11, 139-0-170-01, 139-0-022-06, 139-0-170-02, 139-0-170-03, 139-0-161-01, 139-0-170-08, 139-0-170-04, 139-0-170-05, 139-0-162-08, 139-0-162-04, 139-0-162-04, 139-0-162-07 and 139-0-161-02. Regional access to the site is provided by the Ventura Freeway (U.S. Highway 101) and Pacific Coast Highway (State Route 1) (see attached aerial).

Project Description: The residential component would include up to 1,500 multiple family residential units contained within five housing types as follows: 1) three-story townhomes; 2) three-story live work town homes; 3) four-story condominiums above two levels of subterranean parking; 4) four-story mixed use buildings with two or three stories of residential condominiums above commercial retail/office uses with subterranean parking; and 5) two 25-story residential towers. A total of 1,500 attached residential units are proposed. Building heights for the project would be up to 43 feet for the townhouse buildings, 40 feet for the live/work buildings, 50 feet for the four-story condominiums and mixed use buildings, and 270 feet for the residential high-rise buildings. Fifteen percent of the total units would be designated as "affordable housing" and would meet the income criteria for very low - and moderate-income families.

The commercial component would consist of 47,000 square feet of neighborhood serving commercial retail and small commercial office space. Approximately 24,000 square feet would be dedicated to one- or two-story community retail with a building height of up to 35 feet, and 23,000 square feet would be dedicated to small commercial office/retail located below the live/work townhouses and the mixed use condominiums.

The project would also provide a 1.7-acre "community village green" and 0.9-acre neighborhood park. Various smaller pocket parks, gardens and plazas as well as landscaped pedestrian corridors connecting different areas of the site would also be provided. The parks would provide a variety of recreational amenities, including, but not limited to, a swimming pool and pool house, tot-lot, open turf areas and barbeque and picnic areas. The four-story condominiums would include interior courtyards and private recreation facilities. The high-rise towers would also include private recreational facilities.

More detail regarding the project design is contained within the attached Initial Study (see attached materials).

Topics Identified for Study in this EIR: The City of Oxnard has completed an Initial Study on the above project and has determined that an EIR should be prepared for the project. Based on the characteristics of the project, the City intends to prepare a Project EIR. The scope of work for this EIR will involve research, analysis, and study of the following issues and concerns. The project is of regional significance. The City of Oxnard is also updating its General Plan for which an EIR may begin in the near future.

The City plans to address the following environmental topics in the EIR for this project:

- Aesthetics
- Air Quality
- Cultural Resources
- Geology and Soils
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use & Planning
- Noise
- Population & Housing
- Public Services
- Recreation
- Transportation & Traffic
- Utilities & Service Systems

Through the preliminary evaluation of the project as documented within the attached Initial Study, the following topics will be addressed briefly in an Effects Found Not to be Significant section contained in the EIR: agricultural, biological and mineral resources. The project site is currently developed with a retail use, housing and related parking lot and lies in an urbanized area of Oxnard. The subject area is not currently used for mineral extraction. However, the site is located in an area identified as "non-designated MRZ-2" in the City's General Plan and Mineral Resources Management Plan. This indicates that potential useable sand and gravel deposits associated with the adjacent Santa Clara River channel may exist underneath the developed site. The City has determined that any loss of relatively easy access to possible mineral deposits beneath the site would constitute a less than significant impact.

Date: October 11, 2006

Signature ______________________________

Title: Planning and Environmental Services Manager

Telephone: (805) 385-7858

For information about the project contact Ms. Mallory at (805) 512-9800

Reference: California Code of Regulations, Title 14, (CEQA Guidelines), Section 15082(a), 15103, 15375.

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office
818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

17 November 2006

Ms. Kathleen Mallory
City of Oxnard
Planning and Environmental Services
305 West Third Street
Oxnard, CA 93030

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project - SCAG No. I 20060699

Dear Ms. Mallory

Thank you for submitting the Notice of Preparation (NOP) for the Wagon Wheel Specific Plan Project to the Southern California Association of Governments (SCAG) for review and comment. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

SCAG staff has reviewed the aforementioned NOP, and has determined that the proposed project is regionally significant per the California Environmental Quality Act (CEQA) Guidelines (Section 15206). The proposed project would include up to 1,500 multiple family residential units contained within five housing types, and has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located.

CEQA requires that EIRs discuss any inconsistencies between the proposed project and applicable general plans and regional plans (Section 15125 [d]). If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided.

Policies of SCAG's Regional Comprehensive Plan and Guide, Regional Transportation Plan, and Compass Growth Vision that may be applicable to your project are outlined in the attachment. We expect the EIR to specifically cite the appropriate SCAG policies and address the manner in which the project is consistent with applicable core policies or supportive of applicable ancillary policies. Please use our policy numbers to refer to them in your EIR. Also, we would encourage you to use a side-by-side comparison of SCAG policies with a discussion of the consistency or support of the policy with the proposed project.

SCAG's Compass Growth Vision, adopted in 2004, encourages better relationships between housing, transportation, and employment. For a clearer understanding of the intent of and possibilities with Compass, please consult our website, www.socalcompass.org in addition to the guidance offered in this letter.

Please provide a minimum of 45 days for SCAG to review the EIR when this document is available. If you have any questions regarding the attached comments, please contact Jill Egerman at (213) 236-1919. Thank you.

Sincerely,

Sylvia Patsaouras

Sylvia Patsaouras
Manager, Environmental Division

**COMMENTS ON THE NOTICE OF PREPARATION OF
AN ENVIRONMENTAL IMPACT REPORT FOR THE WAGOON WHEEL SPECIFIC PLAN PROJECT
SCAG NO. I20000699**

PROJECT DESCRIPTION

The proposed project would include up to 1,500 multiple family residential units contained within five housing types as follows: 1) three-story town homes; 2) three-story live work town homes; 3) four-story condominiums above two levels of subterranean parking; 4) four-story mixed use buildings with tow or three stories of residential condominiums above commercial retail/office uses with subterranean parking; and 5) two 25-story residential towers. A total of 1,500 attached residential units are proposed. Building heights for the project would be up to 43 feet for the townhouse buildings, 40 feet for the live/work buildings, 50 feet for the four-story condominiums and mixed use building, and 270 feet for the residential high-rise buildings. Fifteen percent of the total units would be designated as "affordable housing" and would meet the income criteria for very low – and moderate – income families.

The commercial component would consist of 47,000 square feet of neighborhood serving commercial retail and small commercial office space. Approximately 24,000 square feet would be dedicated to one- or two- community retail with a building height of up to 35 feet, and 23,000 square feet would be dedicated to small commercial office/retail located below the live/work townhouses and the mixed-use condominiums.

The project would also provide a 1.7-acre "community village green" and 0.9-acre neighborhood park. Various smaller pocket parks, gardens and plazas as well as landscaped pedestrian corridors connecting different areas of the site would also be provided. The parks would provide a variety of recreational amenities, including, but not limited to, a swimming pool and pool houses, tot-lot, open turf areas and barbeque and picnic areas. The four-story condominiums would include interior courtyards and private recreation facilities. The high-rise towers would also include private recreational facilities.

CONSISTENCY WITH REGIONAL COMPREHENSIVE PLAN AND GUIDE POLICIES

The **Growth Management Chapter (GMC)** of the Regional Comprehensive Plan and Guide (RCPG) contains the following policies that are particularly applicable and should be addressed in the Draft EIR for the Ranch at Eastvale Specific Plan.

3.01 *The population, housing, and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review.*

Regional Growth Forecasts

The DEIR should reflect the most current SCAG forecasts, which are the 2004 RTP (April 2004) Population, Household and Employment forecasts. The forecasts for your region and subregion are as follows:

Adopted SCAG Regionwide Forecasts	2010	2015	2020	2025	2030
Population	19,208,661	20,191,117	21,137,519	22,035,416	22,890,797
Households	6,072,578	6,463,402	6,865,355	7,263,519	7,660,107
Employment	8,729,192	9,198,618	9,650,847	10,100,776	10,527,202

Adopted Ventura Council of Governments Forecasts

	2010	2015	2020	2025	2030
Population	865,149	897,295	929,181	960,025	989,765
Households	275,352	289,318	303,596	317,831	332,109
Employment	381,680	403,000	424,470	445,193	465,468

City of Oxnard Forecasts

	2010	2015	2020	2025	2030
Population	199,168	210,470	221,614	232,300	242,538
Households	50,257	53,871	57,550	61,188	64,815
Employment	57,301	61,195	65,115	68,882	72,551

* The 2004 RTP growth forecast at the regional, county and subregional level was adopted by RC in April, 2004.

3.03 *The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL STANDARD OF LIVING

The Growth Management goals to develop urban forms that enable individuals to spend less income on housing cost, that minimize public and private development costs, and that enable firms to be more competitive, strengthen the regional strategic goal to stimulate the regional economy. The evaluation of the proposed project in relation to the following policies would be intended to guide efforts toward achievement of such goals and does not infer regional interference with local land use powers.

3.04 *Encourage local jurisdictions' efforts to achieve a balance between the types of jobs they seek to attract and housing prices.*

3.05 *Encourage patterns of urban development and land use which reduce costs on infrastructure construction and make better use of existing facilities.*

3.07 *Support subregional policies that recognize agriculture as an industry, support the economic viability of agricultural activities, preserve agricultural land and provide compensation for property owners holding lands in greenbelt areas.*

3.09 *Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services.*

3.10 *Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness.*

GMC POLICIES RELATED TO THE RCPG GOAL TO IMPROVE THE REGIONAL QUALITY OF LIFE

The Growth Management goals to attain mobility and clean air goals and to develop urban forms that enhance quality of life, that accommodate a diversity of life styles, that preserve open space and natural resources, and that are aesthetically pleasing and preserve the character of communities, enhance the regional strategic goal of maintaining the regional quality of life. The evaluation of the proposed project in relation to the following policies would be intended to provide direction for plan implementation, and does not allude to regional mandates.

3.12 *Encourage existing or proposed local jurisdictions' programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike.*

3.14 *Support local plans to increase density of future development located at strategic points along the regional commuter rail, transit systems, and activity centers.*

3.15 *Support local jurisdictions' strategies to establish mixed-use clusters and other transit-oriented developments around transit stations and along transit corridors.*

3.16 *Encourage developments in and around activity centers, transportation corridors, under-utilized infrastructure systems and areas needing recycling and redevelopment.*

3.18 *Encourage planned development in locations least likely to cause adverse environmental impact.*

3.20 *Vital resources as wetlands, groundwater recharge areas, woodlands, production lands, and land containing unique and endangered plants and animals should be protected.*

3.23 *Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans.*

GMC POLICIES RELATED TO THE RCPG GOAL TO PROVIDE SOCIAL, POLITICAL, AND CULTURAL EQUITY

The Growth Management Goal to develop urban forms that avoid economic and social polarization promotes the regional strategic goal of minimizing social and geographic disparities and of reaching equity among all segments of society. The evaluation of the proposed project in relation to the policy stated below is intended guide direction for the accomplishment of this goal, and does not infer regional mandates and interference with local land use powers.

3.24 *Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.*

3.27 *Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.*

OPEN SPACE AND CONSERVATION CHAPTER

The **Open Space and Conservation Chapter** core actions related to the proposed project includes:

- *Increase the accessibility to open space lands for outdoor recreation.*
- *Promote self-sustaining regional recreation resources and facilities.*
- *Maintain adequate viable resource production lands, particularly lands devoted to commercial agriculture and mining operations.*
- *Develop well-managed viable ecosystems or known habitats of rare, threatened and endangered species, including wetlands.*

REGIONAL TRANSPORTATION PLAN

The **2004 Regional Transportation Plan (RTP)** also has goals and policies that are pertinent to this proposed project. This RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations. The RTP continues to support all applicable federal and state laws in implementing the proposed project. Among the relevant goals and policies of the RTP are the following:

Regional Transportation Plan Goals
- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment, improve air quality and promote energy efficiency.
- Encourage land use and growth patterns that complement our transportation investments.

Regional Transportation Plan Policies
- Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.

Performance Indicator	Performance Measures	Definition	Performance Outcomes
Mobility	• Average Daily Speed	Speed-experienced by travelers regardless of mode.	10% Improvement
	• Average Daily Delay	Delay-excess travel time resulting from the difference between a reference speed and actual speed. Total daily delay and daily delay per capita are indicators used.	40% Improvement
Accessibility	• Percent PM peak work trips within 45 minutes of home		Auto 92% Transit 37%
	• Distribution of work trip travel times		Auto 8% Improvement Transit 8% Improvement
Reliability	• Percent variation in	Day-to-day change in travel times	10% Improvement

	travel time	experienced by travelers. Variability results from accidents, weather, road closures, system problems and other non-recurrent conditions.	
Safety	• Accident Rates	Measured in accidents per million vehicle miles by mode.	0.3% improvement
Performance Indicator	**Performance Measures**	**Definition**	**Performance Outcome**
Cost Effectiveness	• Benefit-to-Cost (B/C) Ratio	Ratio of benefits of RTP investments to the associated investments costs.	$3.08
Productivity	• Percent capability utilized during peak conditions	Transportation infrastructure capacity and services provided. • Roadway Capacity - vehicles per hour per lane by type of facility. • Transit Capacity – seating capacity utilized by mode.	[illegible] 20% improvement at all known bottlenecks N/A
Sustainability	• Total cost per capita to sustain current system performance	Focus in on overall performance, including infrastructure condition Preservation measure is a sub-set of sustainability.	$20 per capita, primarily in preservation costs
Preservation	• Maintenance cost per capita to preserve system at base year conditions	Focus is on infrastructure condition. Sub-set of sustainability.	Maintain current conditions
Environmental	• Emissions generated by travel	Measured/forecast emissions include CO, NOX, PM10, SOX and VOC. CO_2 as secondary measure to reflect greenhouse emissions.	Meets conformity requirements
Environmental Justice	• Expenditures by quintile and ethnicity	Proportionate share of expenditures in the 2004 RTP by each quintile.	No disproportionate impact to any group or quintile
	• Benefit vs. burden by quintiles	Proportionate share of benefits to each quintile ethnicity.	
		Proportionate share of additional airport noise by ethnic group.	

- Ensuring safety, adequate maintenance, and efficiency of operations on the existing multi-modal transportation system will be RTP priorities and will be balanced against the need for system expansion investments.

- RTP land use and growth strategies that differ from currently expected trends will require a collaborative implementation program that identifies required actions and policies by all affected agencies and sub-regions.

17 November 2006
Ms. Kathleen Mallory
Page 7

GROWTH VISIONING

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity or income class. Thus, decisions regarding growth, transportation, land use, and economic development should be made to promote and **sustain** for future generations the region's **mobility, livability** and **prosperity**. The following "Regional Growth Principles" are proposed to provide a framework for local and regional decision making that improves the quality of life for all SCAG residents. Each principle is followed by a specific set of strategies intended to achieve this goal.

Principle 1: Improve **mobility** for all residents

- Encourage transportation investments and land use decisions that are mutually supportive.
- Locate new housing near existing jobs and new jobs near existing housing.
- Encourage transit-oriented development.
- Promote a variety of travel choices

Principle 2: Foster **livability** in all communities

- Promote infill development and redevelopment to revitalize existing communities.
- Promote developments, which provide a mix of uses.
- Promote "people scaled," walkable communities.
- Support the preservation of stable, single-family neighborhoods.

Principle 3: Enable **prosperity** for all people

- Provide, in each community, a variety of housing types to meet the housing needs of all income levels.
- Support educational opportunities that promote balanced growth.
- Ensure environmental justice regardless of race, ethnicity or income class.
- Support local and state fiscal policies that encourage balanced growth
- Encourage civic engagement.

Principle 4: Promote **sustainability** for future generations

- Preserve rural, agricultural, recreational and environmentally sensitive areas.
- Focus development in urban centers and existing cities.
- Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.
- Utilize "green" development techniques.

CONCLUSIONS

All feasible measures needed to mitigate any potentially negative regional impacts associated with the proposed project should be implemented and monitored, as required by CEQA.

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Roles and Authorities

THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS (SCAG) is a ***Joint Powers Agency*** established under California Government Code Section 6502 et seq. Under federal and state law, SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG's mandated roles and responsibilities include the following:

SCAG is designated by the federal government as the Region's ***Metropolitan Planning Organization*** and mandated to maintain a continuing, cooperative, and comprehensive transportation planning process resulting in a Regional Transportation Plan and a Regional Transportation Improvement Program pursuant to 23 U.S.C. '134, 49 U.S.C. '5301 et seq., 23 C.F.R. '450, and 49 C.F.R. '613. SCAG is also the designated ***Regional Transportation Planning Agency***, and as such is responsible for both preparation of the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) under California Government Code Section 65080 and 65082 respectively.

SCAG is responsible for developing the demographic projections and the integrated land use, housing, employment, and transportation programs, measures, and strategies portions of the ***South Coast Air Quality Management Plan***, pursuant to California Health and Safety Code Section 40460(b)-(c). SCAG is also designated under 42 U.S.C. '7504(a) as a ***Co-Lead Agency*** for air quality planning for the Central Coast and Southeast Desert Air Basin District.

SCAG is responsible under the Federal Clean Air Act for determining ***Conformity*** of Projects, Plans and Programs to the State Implementation Plan, pursuant to 42 U.S.C. '7506.

Pursuant to California Government Code Section 65089.2, SCAG is responsible for ***reviewing all Congestion Management Plans (CMPs) for consistency with regional transportation plans*** required by Section 65080 of the Government Code. SCAG must also evaluate the consistency and compatibility of such programs within the region.

SCAG is the authorized regional agency for ***Inter-Governmental Review*** of Programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12,372 (replacing A-95 Review).

SCAG reviews, pursuant to Public Resources Code Sections 21083 and 21087, Environmental Impacts Reports of projects of regional significance for consistency with regional plans [California Environmental Quality Act Guidelines Sections 15206 and 15125(b)].

Pursuant to 33 U.S.C. '1288(a)(2) (Section 208 of the Federal Water Pollution Control Act), SCAG is the authorized ***Areawide Waste Treatment Management Planning Agency***.

SCAG is responsible for preparation of the ***Regional Housing Needs Assessment***, pursuant to California Government Code Section 65584(a).

SCAG is responsible (with the Association of Bay Area Governments, the Sacramento Area Council of Governments, and the Association of Monterey Bay Area Governments) for preparing the ***Southern California Hazardous Waste Management Plan*** pursuant to California Health and Safety Code Section 25135.3.

Revised July 2001

VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT
Memorandum

TO: Carl Morehouse, Planning DATE: November 6, 2006

FROM: Alicia Stratton

SUBJECT: Request for Review of Notice of Preparation for a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project, City of Oxnard (Reference No. 06-050)

Air Pollution Control District staff has reviewed the subject project, which is a proposal for preparation of an environmental impact report (DEIR) to address environmental impacts from construction of 1,500 multiple family residential units contained within five housing types: three-story townhomes; three-story live-work townhomes; four-story condominiums above two levels of subterranean parking, four-story mixed use buildings with two or three stories of residential condominiums above commercial retail/office uses with subterranean parking and two 25-story residential towers. The commercial component would consist of 47,000 sq. ft. of neighborhood serving commercial retail and small commercial office space. The project location is near the northwestern edge of the City of Oxnard.

General Comments

District staff recommends that the air quality section of the draft environmental impact report be prepared in accordance with the 2003 *Ventura County Air Quality Assessment Guidelines* (2003 Guidelines). A copy of the 2003 Guidelines can be accessed from the downloadable materials section of the APCD website at www.vcapcd.org.

Specifically, the air quality assessment should consider reactive organic compound and nitrogen oxide emissions from all project-related motor vehicles and construction equipment. Additionally, the air quality assessment should consider potential impacts from fugitive dust, including PM10, that will be generated by construction activities.

Air Quality Management Plan Consistency

The DEIR should evaluate potential air quality impacts associated with the project and any increase in population.

Carbon Monoxide

A carbon monoxide screening analysis should be conducted for any project-impacted roadway intersection that are currently operating, or that are expected to operate at, Levels of Service D, E, or F, or at any project-impacted roadway intersection that may be a CO hotspot. If a potential hotspot is identified, the District recommends that a complete CALINE3 or CALINE4 carbon monoxide analysis be conducted for that intersection.

Valley Fever

We recommend that the potential for Valley Fever be addressed in the DEIR to determine the potential Valley Fever disturbance on the project site.

Asbestos

Building demolition activities may cause possible exposure to asbestos. We recommend the DEIR include a discussion on how potential exposure to asbestos would be addressed. This discussion should include notification of the APCD prior to issuance of demolition permits for any onsite structures. Demolition and/or renovation activities shall be conducted in compliance with District Rule 62.7, *Asbestos – Demolition and Renovation*. Rule 62.7 governs activities related to demolition of buildings with asbestos-containing materials. This rule establishes the notification and emission control requirements for demolition activities. Specifically, this rule requires that the owner or operator of a facility shall remove all asbestos-containing material from a facility being demolished. For additional information on asbestos, or to download a copy of Rule 62.7, please visit our website at www.vcapcd.org/asbestos.htm. You can also contact the District's Asbestos Coordinator, Jay Nicholas at (805) 645-1443 or by email at jay@vcapcd.org.

Air Toxics Evaluation

This project will involve a large amount of grading of soil. The California Air Resources Board (CARB) has identified diesel exhaust particulate matter as a Toxic Air Contaminant (TAC). Diesel exhaust includes hundreds of different gaseous and particulate components, many of which are toxic. The earthmoving equipment has the potential to expose sensitive populations in the vicinity to elevated levels of diesel exhaust.

The District recommends that a screening health risk assessment be conducted for the project to assess the potential health risks on any nearby sensitive receptors, such as schools, hospitals, day care centers, retirement homes, and residences. If the screening health risk assessment indicates a potentially significant health risk, we recommend a more refined health risk assessment be performed. Mitigation measures should also be identified and discussed if the assessment indicates a significant risk. Additional information on TACs can be obtained from the District's website at http://www.vcapcd.org/air_toxics.htm. If you have any general questions regarding air toxics, please contact Terri Thomas of the APCD at (805) 645-1405 or by email at terri@vcapcd.org.

Mitigation Measures

If the project is determined to have a significant impact on regional and/or local air quality, the Draft supplemental focused EIR should include all feasible mitigation measures. Moreover, any project design features that mitigate air quality impacts should also be described in the DEIR. Additionally, to the extent feasible, the DEIR should assess and document the air quality benefit of all feasible mitigation measures and project design elements.

Chapter 7 of the District's 2003 Guidelines discusses a number of mitigation measures that may be appropriate for this project. The District encourages other appropriate mitigation measures not included in the 2003 Guidelines be considered to help mitigate the projects air quality impacts.

The DEIR should clearly state that all feasible air quality mitigation measures included in the document would be fully implemented if the project were approved.

If you have any questions, please call me at 645-1426.

NOV 0 7 2006

PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT
Traffic, Advance Planning & Permits Division

MEMORANDUM

DATE: November 6, 2006

TO: Resource Management Agency, Planning Division
Attention: Carl Morehouse

FROM: Nazir Lalani, Deputy Director Ben For NL

SUBJECT: **REVIEW OF DOCUMENT 06-050, WAGON WHEEL SPECIFIC PLAN PROJECT** Initial Study and Notice of Preparation of a Draft Environmental Impact Report (DEIR) – 1,500 residential apartment units and 47,000 SF of commercial retail and office space.
All on-site structures and infrastructure would be removed. The project site is within the City of Oxnard and is bounded by SR 101 to the north, Oxnard Boulevard to the east, the Southern Pacific Railroad to the south, and Ventura Road to the west.
Project Applicant: **Daly Owens Group**
Lead Agency: **City of Oxnard**

The Public Works Agency -- Transportation Department has reviewed the notice of preparation of a DEIR for the Wagon Wheel Specific Plan. The project consists of 1,500 residential apartment units and 47,000 SF of commercial retail and office space. The project site is within the City of Oxnard and is bounded by SR 101 to the north, Oxnard Boulevard to the east, the Southern Pacific Railroad to the south, and Ventura Road to the west. We offer the following comments:

1. The Traffic Study for the DEIR should evaluate and provide mitigation measures for the site-specific impacts this project may have on the County's Regional Road Network. Of particular interest to the County are the potential traffic impacts to the roadways in the El Rio Community.

2. The cumulative impacts of the development of this project, when considered with the cumulative impact of all other approved (or anticipated) development projects in the County, will be potentially significant. To address the cumulative adverse impacts of traffic on the County Regional Road Network, the appropriate Traffic Impact Mitigation fees (TIMF) should be paid to the County when development occurs. Based on the information provided in the Initial Study and the reciprocal agreement between the City of Oxnard and the County of Ventura, the fee due to the County is:

1,500 Apartment homes (Other Housing) x $256.96/ DU =	$385,440.00
47,000 SF Commercial retail/office uses X $489.72/TSF =	$23,016.84
	$408,456.84

The above estimated fee may be subject to adjustment at the time of deposit, due to provisions in the Traffic Impact Mitigation Ordinance allowing the fee to be adjusted for inflation based on the Engineering News Record (ENR) construction cost index. The above is an estimate only based on information provided in the Initial Study.

With payment of the TIMF, the cumulative impacts on the level of service and safety of the existing roads would remain consistent with the County's General Plan.

Our review is limited to the impacts this project may have on the County's Regional Road Network.

Please call me at 654-2080 if you have questions.

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VENTURA COUNTY TRANSPORTATION COMMISSION

950 County Square Dr., Suite 207 Ventura, California 93003 (805) 642-1591 fax (805) 642-4860

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NOV 20 2006

PLANNING DIVISION
CITY OF OXNARD

November 15, 2006

City of Oxnard
Ms. Kathleen Mallory AICP, Project Planner
305 West Third Street
Oxnard, CA 93030

Subject: Wagon Wheel Specific Plan, Notice of Preparation

Dear Ms. Mallory:

Thank you for the opportunity to respond to the Notice of Preparation of the Draft Environmental Impact Report (DEIR) for the Wagon Wheel Specific Plan. We offer the following comments specifically concerning transportation/circulation for your consideration as you prepare the environmental document:

- The traffic analysis should address the project's impact upon the regional transportation system. The adopted Congestion Management Program (CMP) requires that a level Of Service (LOS) E be maintained on the CMP roadway network. Failure to maintain the adopted LOS could trigger the need for the City of Oxnard to prepare a Deficiency Plan, approved by the Ventura County Transportation Commission (VCTC), outlining how the City intends to improve the LOS on deficient roadway segments. If the City of Oxnard does not prepare a Deficiency Plan, the VCTC could withhold gas tax funds due to the City in order to make necessary improvements.

- Especially critical for analysis are the impacts on Highway 101 between the City of San Buenaventura and the City of Thousand Oaks. This segment of highway is already severely congested in both the A.M. and P.M. peak hour and because of the proposed project's location nearly all of the trips generated will be distributed directly on this highway segment.

- The EIR's traffic study should include intersection analysis well outside of the immediate project area. Again, due to the project's location, trips are going to be distributed primarily onto Highway 101 but the impacts of those trips will be far reaching and need to be considered. Intersections near freeway off-ramps within the City of San Buenaventura, Camarillo and even Thousand Oaks should be considered as well as those in the project vicinity, including the Saviers Rd./Wooley Rd. "Five Points" intersection in Oxnard.

- Discounts to trip generation or trip distribution should be kept to a minimum despite the project's mix of land uses. Employment centers, schools and regional shopping are all located outside of the project area necessitating off-site trips.

- The traffic analysis must include the cumulative impacts to the CMP roadway network, specifically but not limited to the proposed project on the Levitz site as well as other proposed projects along the Highway 101 corridor.

- The circulation study should include provisions for both South Coast Area Transit (SCAT) and VISTA buses. Lane configuration, intersection geometrics and bus pull out design should take bus length and turning radius into account.

- Lastly, it is important that the full range of transportation control measures as identified in the AQMP, as well as those programs in the TDM chapter of the CMP, be considered in the development of mitigation measures for the proposed project. Full consideration should include a discussion of all reasonably available measures and an explanation regarding the inclusion/exclusion of each.

We look forward to reviewing the DEIR prepared for this project. If you have any questions regarding the above comments, please do not hesitate to contact Steven DeGeorge of our staff at 642-1591 (ext. 103).

Sincerely,

Ginger Gherardi

Ginger Gherardi
Executive Director

Rincon additional

CITY OF
VENTURA

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NOV 27 2006
PLANNING DIVISION
CITY OF OXNARD

November 20, 2006

Ms. Kathleen Mallory
City of Oxnard
Planning and Environmental Services Division
305 West Third Street
Oxnard, California 93030

RE: Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project

Dear Ms. Mallory:

The City of Ventura would like to thank you for the opportunity to provide comments on the City of Oxnard Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project. The proposed project consists of up to 1,500 multifamily residential units within five housing types, and 47,000 square feet of neighborhood serving commercial retail, small commercial office space and parking at the western boundary of the City of Oxnard. The project also includes a 1.7-acre 'community village green' and .9-acre neighborhood park. Section 15125(c) of the California Environmental Quality Act (CEQA) Guidelines states, "Knowledge of the regional setting is critical to the assessment of environmental impacts." As an adjacent municipality, the City of Ventura has concern over description of the environmental setting for this project as well as project impacts to neighboring jurisdictions.

The City of Ventura's comments on the Notice of Preparation for the proposed project address the following issues: housing; recreation; transportation and circulation; and water supply.

Housing

The EIR should discuss the proposed project's consistency with the Southern California Association of Governments (SCAG) Regional Comprehensive Plan and Guide. The jobs/housing balance analysis should include a discussion of any impacts the proposed project may generate in terms of job creation, and resultant impact to area housing supply beyond the City of Oxnard's corporate boundaries. The EIR should analyze the project's impacts on the local housing supply, regardless of the jurisdiction where that supply exists.

Recreation

The EIR should discuss impacts to park facilities that are in the local vicinity of the proposed project that are not located in the City of Oxnard, specifically those located in the City of Ventura. Recreational facilities that are not located in the City of Oxnard, and are in close proximity to the project site include the following: San Buenaventura Golf Course; Barranca Vista Park, Junipero Serra Park; Blanche Reynolds Park, and the 89-acre Ventura Community Park that includes an aquatics center, community center, multi-use fields, basketball courts, tennis courts children's play areas, and group picnic areas. These park facilities are available to residents and visitors to the area regardless of the jurisdiction in which they reside and should be analyzed according to the City of Ventura Parks and Recreation Workbook.

Transportation and Circulation

The traffic study for the Environmental Impact Report for the subject project should address the project's impacts to the freeway system and the intersections and roadways within the City of Ventura using the methodology outlined in the Ventura County Congestion Management Program. A select-zone analysis should also be done to identify the project trips on the roadway network.

Water Supply

The Environmental Impact Report should include analysis of impacts on local and regional water supplies in compliance with SB 221.

Again, the City of Ventura appreciates the opportunity to provide comments on the NOP for this regionally significant project. Please contact Maggie Ide, Associate Planner, at (805) 654-7727 if you have any questions regarding these comments on the NOP for the Wagon Wheel Specific Plan Project.

Sincerely,

Kaizer Rangwala

Kaizer Rangwala
Assistant Director, Community Development

C:
Rick Cole, City Manager
Jim Neuerburg, City Attorney
Kari Gialketsis, Principle Planner
Maggie Ide, Associate Planner

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

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NOV 20 2006
PLANNING DIVISION
CITY OF OXNARD

IN REPLY REFER TO:
FAS 3103.4712.6505

November 16, 2006

Kathleen Mallory
City of Oxnard
305 West Third Street
Oxnard, California 93030

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project, Oxnard, Ventura County, California

Dear Ms. Mallory:

The U.S. Fish and Wildlife Service (Service) has reviewed the notice of preparation (NOP) of a draft environmental impact report (DEIR) for the proposed Wagon Wheel Specific Plan project, located south of Highway 101 between Oxnard Boulevard and North Ventura Road in Oxnard. The proposed project would consist of development of up to 1,500 multiple family residential units contained within three- and four-story town homes and condominiums, four-story mixed use buildings with residential condominiums and commercial retail/office space, and two 25-story residential towers. The proposed project would also consist of one- or two-story retail buildings, a 1.7-acre park, and a 0.9-acre park.

The Service's responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the take of listed species without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harassment is defined by the Service as intentional or negligent action that creates the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). The Act provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways: through interagency consultations for projects with Federal involvement pursuant to section 7 of the Act or through the issuance of an incidental take permit under section 10(a)(1)(B) of the Act. If the subject project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. Once you have determined if the proposed project will have a lead Federal agency, we can provide you with more detailed information regarding the section 7 or 10(a)(1)(B) processes.

We recommend that the DEIR contain specific information to assist us in evaluating potential impacts of the proposed project on federally threatened and endangered species and offer the following comments:

The proposed project site does not contain any native habitat and therefore would not be expected to support any federally threatened or endangered species. However, the federally endangered least Bell's vireo (*Vireo bellii pusillus*) is known to occur and nest in the riparian habitat along the Santa Clara River, on the west side of North Ventura Road. Housing and commercial development may result in indirect effects to the species and riparian habitat in the form of night lighting, noise, introduction of non-native plants, increased irrigation and surface water runoff, contamination by pesticides used by residents, and introduction of non-native predators. Cats are known to have a great impact on native animals, especially birds (Jurek 1994), and free-roaming cats belonging to residents may prey on least Bell's vireo adults, young and eggs. The presence of cats could extend the negative effects of the development well into adjacent habitat and eliminate nesting attempts by least Bell's vireo, even if the suitable habitat is preserved. Furthermore, human activity in least Bell's vireo breeding habitat such as hiking, exploring, recreational shooting, and walking unleashed dogs could flush birds away from nests, or disturb adults to such a degree that reproductive attempts are unsuccessful. The DEIR should assess these potential indirect impacts of the proposed project on least Bell's vireos, and include conservation measure to reduce these impacts.

Only listed species receive protection under the Act; however, other sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project development. We look forward to reviewing the DEIR when it becomes available. If you have any questions, please contact Christine Hamilton of my staff at (805) 644-1766, extension 360.

Sincerely,

Steve Henry

Steve Henry
Assistant Field Supervisor

cc: Stan Glowacki, NOAA Fisheries
Betty Courtney, California Department of Fish and Game

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NOV 20 2006

PLANNING DIVISION
CITY OF OXNARD

Law Office of
BARBARA MACRI-ORTIZ
P.O. Box 6432
Oxnard, California 93031

Telephone: (805) 486-9665

Facsimile: (805) 487-1409
E-mail: b.macriortiz@verizon.net

November 17, 2006

Ms. Kathleen Mallory, AICP
Project Planner
Planing & Environmental Services Division
City of Oxnard
305 West Third Street
Oxnard, California 93030

RE: PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT WAGON WHEEL SPECIFIC PLAN PROJECT, OXNARD, CA

Dear Ms. Mallory:

This letter is written in accordance with the request made at the Community Workshop on November 13, 2006, for input concerning the scope of the EIR for the Wagon Wheel project.

As you know, at the meeting I raised several areas of concern that should be thoroughly studied in the EIR, including the impacts of this project on the City's existing housing stock for its very low and low income community, especially in light of the proposed closure of the mobile home park.[1] If approved as proposed, the project would eliminate

[1]. I also suggested that the consultant study the changes that are currently underway in redefining the flood plain, and I raised concerns related to the impact of this project on the City's ability to provide an adequate supply of parklands to serve the entire community. I noted the acute shortage of parks available for youth soccer and other youth sports programs. These shortages will no doubt continue to grow as the City continues to grow. The increasing demands placed upon the parks by an expanding population must be viewed as a significant impact of the Wagon Wheel and other projects being proposed in the City. I will not address these issues in this letter, but I do expect these topics will be seriously addressed, and I invite the consultant to

171 units of affordable housing at the Wagon Wheel Trailer Lodge, as well as additional residential units at the Wagon Wheel Motel.

The Wagon Wheel Trailer Lodge has been home to many very low and low income long time Oxnard residents. This mobilehome park provides decent, safe and sanitary housing to many farm workers and other low wage workers who have faithfully served this community for many years. According to the Mobilehome Park Closure Impact Report that was recently prepared for the Wagon Wheel Trailer Lodge, the average tenancy at the lodge is 11 years, and as was testified to at the community workshop, and as documented in the report, numerous citizens have resided at the park for decades.

The Closure Impact Report makes it clear that it is virtually impossible for any of these residents to relocate to other trailer parks in Oxnard, much less in Ventura County or even within a radius of 150 miles from the park. What does this mean in relation to the EIR? As I explained at the workshop, the closure of this mobile home park that has traditionally served the very low income community must be viewed as a significant impact that ***must be mitigated*** in order for the proposed project to proceed.

The EIR must also evaluate the cumulative effect that the park closure would have on the very serious overcrowding issues that we presently face in the City of Oxnard. As was recognized in the 2000 - 2005 Oxnard Housing Element,

> "Overcrowding occurs when housing costs are so high relative to income that families double-up to save income to afford necessities of life." [Oxnard Housing Element, p. II-31]

The Housing Element reported that from 1980 to 1990, overcrowding among Oxnard households increased from 16% to 25%. The number of overcrowded units rose to 30.5% according to the 2000 U.S. Census. According to the Census, 13,310 of Oxnard's 43,620 housing units were overcrowded. This overcrowding is not limited to rental housing, as some might suspect. In fact, 40.5% of the overcrowded households in 2000 resided in owner occupied housing. The picture is even bleaker now in 2006 as the monumental rise in housing costs has led to even more overcrowding. We have seen a trend of two and three families pooling resources to buy existing homes, as well as new

---

contact me directly as he gathers additional information related to the youth sports programs that utilize Oxnard park facilities.

housing stock that has been developed in the Northeast Community and other areas of the City. Many of these new home owners have lived in Oxnard for years. Some are buying bigger homes to accommodate adult children who are unable to compete for high cost rental housing, and others are opting for home ownership instead of continuing to pay ever increasing rents at poorly maintained rental units.

As was stated in the Housing Element:

> "[a]n important measure of quality of life is the extent of overcrowding in a community. Planning areas with high levels of overcrowding are often associated with a relatively higher level of noise, deterioration of homes, and a shortage of on-site parking. Therefore, maintaining a reasonable level of occupancy and alleviating overcrowded housing conditions is an important contributor to quality of life." [2000 - 2005 Housing Element, p. II-31]

These complaints continue to be raised by the public, as the City suffers the stressors of serious overcrowding. In response to some of these complaints, the City Council has begun to entertain plans to require residential parking permits as a vehicle to address the shortage of parking in some of the City's neighborhoods. However, parking permits do not address the systemic problem inherent in overcrowded neighborhoods.

The problem is simple. We are not building the type of housing stock that our community requires, and very little of the housing that is being built is affordable to those in the community who need the housing. This is a real problem that will be exacerbate if the mobile home park closes in a manner that leaves many long time citizens of Oxnard among those competing for affordable housing in this impacted community.

At the workshop many citizens questioned the impact that this development would have on our already overcrowded elementary and high school districts that would serve the Wagon Wheel community. The EIR must address the impact that this project will have if the units are priced beyond the reach of our residents because most Oxnard families simply cannot afford $500,000.00 homes, or even $350,000.00 homes. As long as we keep building housing products that our own citizens cannot afford, we will surely perpetuate the overcrowding problems in our schools. We will also make it impossible for our school administrators to be able to adequately plan for the student population that they will be responsible to serve because school projections, including mitigation fees, are based on one family per housing unit. Unfortunately, if the present trend of high housing costs continues, the notion of one family per housing unit will soon be an endangered species, as our working families and adult children continue to adjust to a family and community unfriendly environment.

I appreciate the opportunity to participate in this process, and I look forward to an honest and realistic evaluation of the impacts that this project will have on our community.

Please feel free to contact me, if you have any questions or require additional information.

Sincerely,

Barbara Macri-Ortiz

xc: Wagon Wheel Residents' Committee

November 14, 2006

Lawrence Paul Stein
1965 Falkner Place
Oxnard, CA 93033

Sue Martin
Manager
Planning and Environmental Services
City Hall 2nd Floor
305 West Third Street
Oxnard, CA 93030

RE: Comments Wagon Wheel Specific Plan

Dear Ms Martin;

Monday, November 13, 2006 the city of Oxnard held a Public Scoping Meeting regarding the development of the Wagon Wheel Specific Plan. The developer, DalyOwens Group made a brief presentation. Many issues were left unanswered. Other issues seem to fall short of the city's guidelines. Please provide responses to the following issues.

Considering that many single family units contain more than 1 family, due in part, to the high cost of housing, how many people are expected to occupy each unit? Please provide population density sampling from each neighborhood in order to justify your response. I am assuming there will be an average of 5 people occupying each residential unit, generating a project population of 7,500.

I estimate that the population will generate a need for 2/6 of a high school, 2 elementary schools and a junior high school. How much in development fees will be generated for each school district? Will any school be built within the plan? If so, where will the schools be built? If not, what will the traffic impact be due to the increase in cumulative trips to and from the schools? How will the traffic be mitigated?

Past EIRs have issued statements of negative mitigated declarations as it pertains to traffic issues. We have numerous intersections whose level of service fall below C, despite these negative mitigated declarations. What will be the cumulative affect on traffic be after River Park, the third high rise at the Topa Towers, the 3 high rises at the Levitz and this project are all built out. Please address the impact on traffic during the weekdays as well as the weekends. Currently, Friday afternoon traffic (especially at the start of a 3 day weekend) and Sunday afternoon traffic generates traffic jams that stretch for 10+ miles on the 101 freeway. Please address how the freeway traffic, service road traffic and surface street traffic issues will be mitigated. How much in traffic impact fees will be paid? What is the estimated cost to mitigate the traffic issues?

Currently, the city of Oxnard has 4 acres per thousand, the lowest in Ventura County. This project plans to generate 3 acres for park land. How was this number derived? With a population growth of 7,500, 30 net acres of open parkland needs to be created. Where will this land come from? The city's 2020 plan already shows a 200 acre deficit in this part of town for open parkland. The city claims there is no funding available to build 3 regional parks; College Park, Sports Park and Campus Park. How will the need for additional parkland be mitigated?

In July 2005, the city fire department released a 10 year strategic plan. This plan revealed that the response time for an emergency was greater than 6 minutes 50% of the time, a rate far below the national average. Response time is defined as the time the call is dispatched to the time when the unit arrives on the scene. Reaction time is defined from when the call for service is first phoned in to when service is actually provided. Please elaborate how response time and reaction time issues be mitigated especially on the top floor of the high rises. What additional equipment will public safety officials have to have to handle calls for emergency services at the higher levels?

The developer plans to run shuttle services from this project to the transportation center, facilitating the ability to commute to job centers such as Amgen, the Warner Center in Woodland Hills, the San Fernando Valley, Valencia and Santa Barbara. Metro Link offers 3 trips in the morning and evening to downtown LA with numerous stops in Ventura and Los Angeles Counties. Vista offers number bus services to Thousand Oaks and the Warner Center. Please elaborate on how services will be provided to Valencia and Santa Barbara. Will services be provided to local beaches, regional parks, the harbors and airport?

Please address the demands for service, water, sewer and solid waste. What is the city's current capacity? What will be the increase in trip generations for solid waste? Please address current and expected capacity at the Del Norte Recycling Center. Please address water supplies. Is the city currently over-drafting its water supplies? Are there plans to use gray water from the T to T program?

What are the ramifications if this project is in a flood zone? There are plans to build subterranean parking structures. The structures will below the water table. Flooding has occurred in the area before. How will flooding be prevented in the parking structures?

This project is within the HERO redevelopment area. Even if redevelopment funds are not used, what is the city's responsibility to the citizens who are being forced to vacate the property they are renting? What is the developer's responsibility to the citizens who are being fore to vacate the property they are renting?. Many of the citizens are making poverty, or just above poverty wages. While they can afford paying $500.00 in month rent now, those rents will not be available to them after they are forced to leave. How will this social issue be mitigated?

Sincerely

Lawrence Paul Stein
1965 Falkner Place
Oxnard, CA 93033

805 486-7179

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PLANNING DIVISION
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Oxnard Union High School District

100 YEARS of EXCELLENCE

Louis J. Cunningham, Director of Facilities 309 South K Street, Oxnard, Calif. 93030
805.385.2562 805.483.1619 Facsimile lou@ouhsd.k12.ca.us

October 20, 2006

Kathleen Mallory, AICP
Project Planner
City of Oxnard
305 West Third Street
Oxnard, CA 93030

Regarding: Response to Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project, Oxnard California.

Dear Kathleen:

The Oxnard Union High School District ("District") has received and reviewed the Notice of Preparation ("NOP") of a Environmental Impact Report ("SEIR") from the City of Oxnard ("City") for the proposed " **Wagon Wheel Specific Plan Project** ". This Plan would allow for the construction of up to 1500 multiple family residential units with approximately 47,000 square feet of commercial retail and small commercial office space on 64 acres.

Unless properly addressed, the Project will have an adverse impact on the ability of the District to house students, and will produce significant negative impacts to the District and the City. By continuing to place additional students on existing campuses there would be increased noise, traffic, and pollution due to an increased number of students who are transported to school. It is, therefore, to the mutual benefit of the District and the City to work in a collaborative effort to ensure the provision of adequate school facilities necessary to meet the increases in student enrollment associated with the Plan.

The District had an enrollment of 16,138 for all schools during the school year of 2005/2006. Rio Mesa High School would serve the approximant 72.9 students generated by this Project. Rio Mesa High School presently has a capacity of 2,007 students with an enrollment of 2,207. Including relocatable classrooms installed to accommodate growth.

In April 2006, a School Facilities Needs Analysis ("SFNA") was prepared for the District. An element included in the SFNA is a calculation of district-wide student generation factors ("SGFs") for all land use types for the District. Using those SGFs, the

District estimates the Project could potentially generate a total of 72.9 high school students. Table 1 shows the calculation of the estimated number of students in grades 9 through 12.

TABLE 1
STUDENTS GENERATED BY THE PLAN

Projected Units Multi-Family Attached	Student Generation Factors	Total Students Generated
1500	0.0486	72.9

In addition to calculating SGFs, the SFNA also evaluated student enrollment and facilities capacity in the school year 2005-06. Comparing school facilities capacity to the existing student enrollment, the District currently has a shortage of 2,629 seats (excludes relocatable classroom capacity in excess of 25% of regular classrooms). Therefore, in order to house students generated from the Project, the District would be required to expand its existing school facilities or add additional school facilities to accommodate the students who will be generated.

As you know, Senate Bill ("SB") 50 reformed the way school districts collect mitigation payments from developers. Under SB 50, school districts cannot use the California Environmental Quality Act ("CEQA") process to block the approval of new development by citing an unmitigated impact on school facilities. Instead, school districts are given the ability, if they meet certain requirements, to collect alternative school fees ("Alternative Fees"). While the Alternative Fees are above what a school district can collect in statutory school fees, they are well below the actual amount needed to mitigate the impact residential development has on school facilities. The District currently levies Alternative Fees in the amount of $1.35 per square foot. However, in an analysis prepared by David Taussig & Associates, Inc. ("DTA"), the District's demographic and financial consultant, the cost impact of a single family detached unit on the District is estimated to be $5,893 and the cost impact of a multi-family attached unit on the District is estimated to be $3,545, and the cost impact of a multi-family unit on the District is estimated to be $1,791. These figures assume funding will be received from the state of California to partially offset the construction cost.

Also as the District would need to bus the 73 students from this project to Rio Mesa High School, a new school bus would need to be purchased at a cost of over $125,000.00.

The District has purchased a site for a new high school in the Camarillo area to handle local un-housed students. and those who presently attend Rio Mesa High School. Accordingly, the District is open to meeting with the developer of the Project to see if an arrangement could be reached to more fully mitigate the impacts of the Plan on the District. Such a meeting would ensure that the high quality of education provided by the

District would remain intact and that the District could continue to provide the programs that the community has come to expect.

The District appreciates the assistance of the City and the Developer with our efforts to provide adequate school facilities for all students within the area of the City served by the District. Should you have any questions regarding this process or about the findings of the District, please do not hesitate to contact me.

Sincerely,

Louis J Cunningham
Director of Facilities

C: Dr. Jody Dunlap
Randy Winton

/mme

county of ventura
DEPARTMENT OF AIRPORTS
www.ventura.org/airports

555 Airport Way ◆ Camarillo, CA 93010 ◆ (805) 388-4274 ◆ Fax: (805) 388-4366

November 27, 2006

Ms. Kathleen Mallory
Planning and Environmental Services
City of Oxnard
305 West Third St.
Oxnard, CA 93030

Re: Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan Project, Oxnard, California

Dear Ms. Mallory:

I met with Abe Leider of Rincon Consultants on November 20, 2006, and have reviewed the above referenced document. On behalf of the Department of Airports, I offer the following comments and concerns.

As you are aware, the project site is located in proximity to both the Oxnard and Camarillo airports. Therefore, the draft EIR should address all airport-related concerns as follows:

1. <u>An analysis of risk/hazards presented by aircraft operations</u>.

   The site lies within the airport influence area of Oxnard Airport and below areas designated as arrival and departure tracks for Camarillo Airport in the Airport Comprehensive Land Use Plan (ACLUP). Residents at the site will experience many aircraft operations at high power settings during departure. The potential exposure to risk from these operations should be identified as well as the site's proposed development in relation to any aircraft hazard/protected zones.

2. <u>Analysis of noise exposure</u>.

   The site is subject to aircraft noise by normal aircraft operations including over-flights, departure noise and other operations on the airports. Noise exposure should be examined, including single-event noise exposure, and there should be identification of *any* mitigation measures that might be available to lessen noise impacts.

In addition, the Draft EIR should provide mitigation measures addressing these concerns, such as full disclosure to future residents, sound attenuation features, etc. And, the Federal Aviation Administration requires the filing of Form 7460, "Notice of Proposed Construction."

Copies of the ACLUP may be obtained from the Ventura County Transportation Commission by contacting Kerry Forsythe at (805) 654-2888, or from Coffman Associates through Steve Benson at (816) 524-3500. The master plans for Oxnard and Camarillo airports are also available from Coffman Associates.

Thank you very much for the opportunity to comment. Please contact me at 388-4200 if you have any questions.

Sincerely,

Todd McK

TODD L. MCNAMEE, AAE
Director of Airports

c Camarillo and Oxnard Airport Authorities
Aviation Advisory Commission
Kerry Forsythe, VCTC
Abe Leider, Rincon Consultants ✓

RESOURCE MANAGEMENT AGENCY
county of ventura

Environmental Health Division
Robert Gallagher
Director

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PLANNING DIVISION
CITY OF OXNARD

November 13, 2006

Kathleen Mallory
City of Oxnard
Planning and Environmental Services Program
305 West Third Street
Oxnard, CA 93030

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WAGON WHEEL SPECIFIC PLAN PROJECT

Environmental Health Division (EHD) staff reviewed the information submitted for the subject project and provides the following comments:

1. EHD records indicate that the project may be located on or near a closed, illegal, or abandoned (CIA) solid waste disposal site. If during construction evidence of a waste disposal site is encountered, the work shall cease and EHD as the Local Enforcement Agency (LEA) must be notified. For more information on LEA requirements please contact Darrell Siegrist at 805/648-9248.

2. For evaluation or remediation of any known or suspected hazardous substance contamination, it is strongly recommended that the responsible party for the subject site immediately contact either the Ventura County EHD Voluntary Cleanup Program or the Los Angeles Regional Water Quality Control Board (LARWQCB) to enroll the case into a cleanup program. For more information on EHD's Voluntary Cleanup Program, please contact Erin O'Connell at 805/654-6511. The contact telephone number for the LARWQCB is 213/576-6600.

800 South Victoria Avenue, Ventura, CA 93009-1730 (805) 654-2813 FAX (805) 654-2480
Internet Web Site Address: www.ventura.org/envhealth

Please contact me at 805/654-2811 if you have any questions regarding this correspondence.

Melinda Talent

MELINDA TALENT
LAND USE SECTION
ENVIRONMENTAL HEALTH DIVISION

c: Darrell Siegrist, EHD/LEA
Erin O'Connell, EHD/LUFT

CALLEGUAS MUNICIPAL WATER DISTRICT

2100 Olsen Road
Thousand Oaks
California 91360-6800
(805) 526-9323
Fax (805) 522-5730
Web site: www.calleguas.com

October 24, 2006

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OCT 25 2006
PLANNING DIVISION
CITY OF OXNARD

Kathleen Mallory
Planning and Engineering Services Manager
City of Oxnard
305 West Third Street
Oxnard, CA 93030

Re: Wagon Wheel Specific Plan

Dear Ms Mallory:

Thank you for sending Calleguas Municipal Water District a copy of the Notice of Preparation of a Draft Environmental Impact Report for the Wagon Wheel Specific Plan. All of the land under consideration is within the present boundaries of Calleguas. Therefore there is no concern about annexation to the District. Calleguas has no comments at this time on environmental issues.

Please advise the applicant that there are likely to be substantial Capital Construction Charges due Calleguas for the project even after considering the available credits for existing demand on the site.

Sincerely yours,

Cy Johnson
Development Programs Administrator

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

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OCT 23 2006
PLANNING DIVISION
CITY OF OXNARD

Notice of Preparation

October 16, 2006

To: Reviewing Agencies

Re: Wagon Wheel Specific Plan Project
SCH# 2006101099

Attached for your review and comment is the Notice of Preparation (NOP) for the Wagon Wheel Specific Plan Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Kathleen Mallory
City of Oxnard
305 West Third Street
Oxnard, CA 93030

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Senior Planner, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2006101069
Project Title Wagon Wheel Specific Plan Project
Lead Agency Oxnard, City of

Type **NOP** Notice of Preparation

Description The residential component would include up to 1,500 multiple family residential units contained within five housing types as follows: 1) three-story townhomes; 2) three-story live work town homes; 3) four-story condominiums above two levels of subterranean parking; 4) four-story mixed use buildings with two or three stories of residential condominiums above commercial retail/office uses with subterranean parking; and 5) two 25-story residential towers. A total of 1,500 attached residential units are proposed. Building heights for the project would be up to 43 feet for the town house buildings, 40 feet for the live/work buildings, 50 feet for the four-story condominiums and mixed use buildings, and 270 feet for the residential high-rise buildings. Fifteen percent of the total units would be designated as "affordable housing" and would meet the income criteria for very low - and moderate-income families.

Lead Agency Contact

Name Kathleen Mallory
Agency City of Oxnard
Phone 805 512-9800 ***Fax***
email
Address 305 West Third Street
City Oxnard ***State*** CA ***Zip*** 93030

Project Location

County Ventura
City
Region
Cross Streets Oxnard Boulevard, North Ventura Road
Parcel No. 139-0-022-01,03,04,12,15;139-0-150-13,139-0-150-11,139-0-170-01,139-0-022-06,139-0-170-02,...
Township ***Range*** ***Section*** ***Base***

Proximity to:

Highways U.S. Highway 101; SR1
Airports
Railways
Waterways
Schools
Land Use Non-designated MRZ-2 in the City's General Plan and Mineral Resources Management Plan.

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Geologic/Seismic; Toxic/Hazardous; Water Quality; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Traffic/Circulation; Other Issues

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Department of Health Services; Office of Emergency Services; Native American Heritage Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 7; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 4

Date Received 10/16/2006 ***Start of Review*** 10/16/2006 ***End of Review*** 11/14/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Ventura

SCH# [illegible]

Resources Agency

- [x] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** David Johnson
- [ ] **California Coastal Commission** Elizabeth A. Fuchs
- [ ] **Colorado River Board** Gerald R. Zimmerman
- [ ] **Dept. of Conservation** Roseanne Taylor
- [ ] **California Energy Commission** Paul Richins
- [ ] **Dept. of Forestry & Fire Protection** Allen Robertson
- [ ] **Office of Historic Preservation** Wayne Donaldson
- [x] **Dept of Parks & Recreation** Environmental Stewardship Section
- [ ] **Reclamation Board** DeeDee Jones
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve McAdam
- [x] **Dept. of Water Resources** Resources Agency Nadell Gayou
- [ ] ____________ Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game** Scott Flint Environmental Services Division
- [ ] **Fish & Game Region 1** Donald Koch
- [ ] **Fish & Game Region 2** Banky Curtis
- [ ] **Fish & Game Region 3** Robert Floerke
- [ ] **Fish & Game Region 4** Julie Vance
- [x] **Fish & Game Region 5** Don Chadwick Habitat Conservation Program
- [ ] **Fish & Game Region 6** Gabrina Gatchel Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M** Tammy Allen Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M** George Isaac Marine Region

Other Departments

- [ ] **Food & Agriculture** Steve Shaffer Dept. of Food and Agriculture
- [ ] **Depart. of General Services** Public School Construction
- [ ] **Dept. of General Services** Robert Sleppy Environmental Services Section
- [x] **Dept. of Health Services** Veronica Malloy Dept. of Health/Drinking Water

Independent Commissions, Boards

- [ ] **Delta Protection Commission** Debby Eddy
- [x] **Office of Emergency Services** Dennis Castrillo
- [ ] **Governor's Office of Planning & Research** State Clearinghouse
- [x] **Native American Heritage Comm.** Debbie Treadway
- [ ] **Public Utilities Commission** Ken Lewis
- [ ] **State Lands Commission** Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics** Sandy Hesnard
- [ ] **Caltrans - Planning** Terri Pencovic
- [x] **California Highway Patrol** Shirley Kelly Office of Special Projects
- [x] **Housing & Community Development** Lisa Nichols Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Jeff Pulverman
- [ ] **Caltrans, District 4** Tim Sable
- [ ] **Caltrans, District 5** David Murray
- [ ] **Caltrans, District 6** Marc Birnbaum
- [x] **Caltrans, District 7** Cheryl J. Powell
- [ ] **Caltrans, District 8** Dan Kopulsky
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [ ] **Caltrans, District 11** Mario Orso
- [ ] **Caltrans, District 12** Bob Joseph

Cal EPA

Air Resources Board

- [ ] Airport Projects Jim Lerner
- [ ] Transportation Projects Ravi Ramalingam
- [ ] Industrial Projects Mike Tollstrup
- [ ] **California Integrated Waste Management Board** Sue O'Leary
- [ ] **State Water Resources Control Board** Jim Hockenberry Division of Financial Assistance
- [ ] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Steven Herrera Division of Water Rights
- [x] **Dept. of Toxic Substances Control** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [x] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
- [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
- [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
- [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)
- [ ] Other ____________

Last Updated on 04/28/06

Appendix B

Air Quality Data

URBEMIS Construction Results

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\URBEMIS_projects\Wagon Wheel Construct P1.urb924

Project Name: Wagon Wheel Construction Phase 1

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	10.37	102.45	46.88	0.05	42.21	4.93	47.14	8.80	4.54	13.34	11,109.84
2009 TOTALS (lbs/day mitigated)	10.37	96.33	46.88	0.05	42.21	3.36	45.57	8.80	3.09	11.90	11,109.84
2010 TOTALS (lbs/day unmitigated)	73.86	94.13	44.29	0.05	144.45	4.51	147.68	30.17	4.15	33.14	11,109.86
2010 TOTALS (lbs/day mitigated)	43.80	88.37	44.29	0.05	44.16	3.05	46.91	9.23	2.80	11.75	11,109.86
2011 TOTALS (lbs/day unmitigated)	71.88	25.74	35.70	0.03	0.15	1.80	1.95	0.05	1.65	1.70	5,336.61
2011 TOTALS (lbs/day mitigated)	29.03	23.80	35.70	0.03	0.15	1.00	1.14	0.05	0.91	0.96	5,336.61

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/2/2009-12/31/2009 Active Days: 87	10.37	**102.45**	**46.88**	**0.05**	42.21	**4.93**	47.14	8.80	**4.54**	13.34	11,109.84
Demolition 09/02/2009-03/01/2010	10.37	102.45	46.88	0.05	42.21	4.93	47.14	8.80	4.54	13.34	11,109.84
Fugitive Dust	0.00	0.00	0.00	0.00	42.00	0.00	42.00	8.74	0.00	8.74	0.00
Demo Off Road Diesel	7.54	60.42	30.32	0.00	0.00	3.29	3.29	0.00	3.03	3.03	5,287.67
Demo On Road Diesel	2.76	41.91	14.42	0.05	0.20	1.63	1.83	0.06	1.50	1.57	5,591.68
Demo Worker Trips	0.07	0.12	2.15	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.50
Time Slice 1/1/2010-3/1/2010 Active Days: 42	9.69	94.13	44.29	**0.05**	42.21	4.51	46.72	8.80	4.15	12.96	**11,109.86**
Demolition 09/02/2009-03/01/2010	9.69	94.13	44.29	0.05	42.21	4.51	46.72	8.80	4.15	12.96	11,109.86
Fugitive Dust	0.00	0.00	0.00	0.00	42.00	0.00	42.00	8.74	0.00	8.74	0.00
Demo Off Road Diesel	7.11	56.93	29.40	0.00	0.00	3.09	3.09	0.00	2.84	2.84	5,287.67
Demo On Road Diesel	2.52	37.10	12.90	0.05	0.20	1.42	1.62	0.06	1.31	1.37	5,591.68
Demo Worker Trips	0.06	0.11	1.98	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.52
Time Slice 3/2/2010-7/30/2010 Active Days: 109	6.08	52.99	26.34	0.01	144.43	2.58	147.01	30.17	2.37	32.54	5,429.02
Mass Grading 03/02/2010-09/01/2010	6.08	52.99	26.34	0.01	144.43	2.58	147.01	30.17	2.37	32.54	5,429.02
Mass Grading Dust	0.00	0.00	0.00	0.00	144.40	0.00	144.40	30.16	0.00	30.16	0.00
Mass Grading Off Road Diesel	5.69	47.86	23.26	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,512.84
Mass Grading On Road Diesel	0.34	5.06	1.76	0.01	0.03	0.19	0.22	0.01	0.18	0.19	762.50
Mass Grading Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Time Slice 8/2/2010-9/1/2010 Active Days: 23	7.62	61.09	32.40	0.01	**144.45**	3.23	**147.68**	**30.17**	2.97	**33.14**	6,354.53
Asphalt 08/01/2010-10/01/2010	1.54	8.10	6.06	0.00	0.01	0.65	0.66	0.00	0.60	0.60	925.51
Paving Off-Gas	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.16	7.17	4.44	0.00	0.00	0.62	0.62	0.00	0.57	0.57	642.10
Paving On Road Diesel	0.06	0.86	0.30	0.00	0.00	0.03	0.04	0.00	0.03	0.03	129.73
Paving Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Mass Grading 03/02/2010-09/01/2010	6.08	52.99	26.34	0.01	144.43	2.58	147.01	30.17	2.37	32.54	5,429.02
Mass Grading Dust	0.00	0.00	0.00	0.00	144.40	0.00	144.40	30.16	0.00	30.16	0.00
Mass Grading Off Road Diesel	5.69	47.86	23.26	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,512.84
Mass Grading On Road Diesel	0.34	5.06	1.76	0.01	0.03	0.19	0.22	0.01	0.18	0.19	762.50
Mass Grading Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Time Slice 9/2/2010-9/30/2010 Active Days: 21	1.54	8.10	6.06	0.00	0.01	0.65	0.66	0.00	0.60	0.60	925.51
Asphalt 08/01/2010-10/01/2010	1.54	8.10	6.06	0.00	0.01	0.65	0.66	0.00	0.60	0.60	925.51
Paving Off-Gas	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.16	7.17	4.44	0.00	0.00	0.62	0.62	0.00	0.57	0.57	642.10
Paving On Road Diesel	0.06	0.86	0.30	0.00	0.00	0.03	0.04	0.00	0.03	0.03	129.73
Paving Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Time Slice 10/1/2010-10/1/2010 Active Days: 1	**73.86**	35.73	43.84	0.03	0.16	2.56	2.72	0.06	2.35	2.41	6,261.95
Asphalt 08/01/2010-10/01/2010	1.54	8.10	6.06	0.00	0.01	0.65	0.66	0.00	0.60	0.60	925.51
Paving Off-Gas	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.16	7.17	4.44	0.00	0.00	0.62	0.62	0.00	0.57	0.57	642.10
Paving On Road Diesel	0.06	0.86	0.30	0.00	0.00	0.03	0.04	0.00	0.03	0.03	129.73
Paving Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Building 10/01/2010-03/01/2011	5.51	27.59	37.09	0.03	0.14	1.91	2.05	0.05	1.75	1.80	5,256.59
Building Off Road Diesel	4.52	21.63	14.38	0.00	0.00	1.68	1.68	0.00	1.54	1.54	2,074.38
Building Vendor Trips	0.40	4.95	4.04	0.01	0.04	0.19	0.23	0.01	0.18	0.19	1,011.69
Building Worker Trips	0.59	1.02	18.67	0.02	0.11	0.04	0.15	0.04	0.04	0.07	2,170.52
Coating 10/01/2010-03/01/2011	66.81	0.04	0.69	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.86
Architectural Coating	66.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.69	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.86
Time Slice 10/4/2010-12/31/2010 Active Days: 65	72.31	27.63	37.78	0.03	0.15	1.91	2.06	0.05	1.75	1.81	5,336.44
Building 10/01/2010-03/01/2011	5.51	27.59	37.09	0.03	0.14	1.91	2.05	0.05	1.75	1.80	5,256.59
Building Off Road Diesel	4.52	21.63	14.38	0.00	0.00	1.68	1.68	0.00	1.54	1.54	2,074.38
Building Vendor Trips	0.40	4.95	4.04	0.01	0.04	0.19	0.23	0.01	0.18	0.19	1,011.69
Building Worker Trips	0.59	1.02	18.67	0.02	0.11	0.04	0.15	0.04	0.04	0.07	2,170.52
Coating 10/01/2010-03/01/2011	66.81	0.04	0.69	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.86
Architectural Coating	66.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.69	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.86
Time Slice 1/3/2011-3/1/2011 Active Days: 42	71.88	25.74	35.70	0.03	0.15	1.80	1.95	0.05	1.65	1.70	5,336.61
Building 10/01/2010-03/01/2011	5.07	25.71	35.06	0.03	0.14	1.80	1.94	0.05	1.65	1.70	5,256.75
Building Off Road Diesel	4.18	20.43	13.99	0.00	0.00	1.59	1.59	0.00	1.46	1.46	2,074.38
Building Vendor Trips	0.36	4.36	3.74	0.01	0.04	0.17	0.21	0.01	0.15	0.17	1,011.75
Building Worker Trips	0.54	0.93	17.33	0.02	0.11	0.04	0.15	0.04	0.04	0.07	2,170.62

Coating 10/01/2010-03/01/2011	66.81	0.03	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.86
Architectural Coating	66.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.03	0.64	0.00	0.00	0.00	0.01	0.00	0.00	0.00	79.86

Phase Assumptions

Phase: Demolition 9/2/2009 - 3/1/2010 - Demolition
Building Volume Total (cubic feet): 1.13E+07
Building Volume Daily (cubic feet): 100000
On Road Truck Travel (VMT): 1388.89
Off-Road Equipment:
1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 8 hours per day
1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
1 Sweepers/Scrubbers (91 hp) operating at a 0.68 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 3/2/2010 - 9/1/2010 - Default Fine Site Grading Description
Total Acres Disturbed: 27
Maximum Daily Acreage Disturbed: 5
Fugitive Dust Level of Detail: Low
Onsite Cut/Fill: 800 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day
On Road Truck Travel (VMT): 189.39
Off-Road Equipment:
1 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
1 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 8/1/2010 - 10/1/2010 - Default Paving Description
Acres to be Paved: 5
Off-Road Equipment:
4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 10/1/2010 - 3/1/2011 - Building Construction
Off-Road Equipment:
1 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day
1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
1 Sweepers/Scrubbers (91 hp) operating at a 0.68 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 10/1/2010 - 3/1/2011 - Arch Coatings
Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/2/2009-12/31/2009 Active Days: 87	10.37	96.33	**46.88**	**0.05**	42.21	3.36	45.57	8.80	3.09	11.90	11,109.84
Demolition 09/02/2009-03/01/2010	10.37	96.33	46.88	0.05	42.21	3.36	45.57	8.80	3.09	11.90	11,109.84
Fugitive Dust	0.00	0.00	0.00	0.00	42.00	0.00	42.00	8.74	0.00	8.74	0.00
Demo Off Road Diesel	7.54	54.30	30.32	0.00	0.00	1.72	1.72	0.00	1.59	1.59	5,287.67
Demo On Road Diesel	2.76	41.91	14.42	0.05	0.20	1.63	1.83	0.06	1.50	1.57	5,591.68
Demo Worker Trips	0.07	0.12	2.15	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.50
Time Slice 1/1/2010-3/1/2010 Active Days: 42	9.69	88.37	44.29	**0.05**	42.21	3.05	45.25	8.80	2.80	11.61	**11,109.86**
Demolition 09/02/2009-03/01/2010	9.69	88.37	44.29	0.05	42.21	3.05	45.25	8.80	2.80	11.61	11,109.86
Fugitive Dust	0.00	0.00	0.00	0.00	42.00	0.00	42.00	8.74	0.00	8.74	0.00
Demo Off Road Diesel	7.11	51.16	29.40	0.00	0.00	1.62	1.62	0.00	1.49	1.49	5,287.67
Demo On Road Diesel	2.52	37.10	12.90	0.05	0.20	1.42	1.62	0.06	1.31	1.37	5,591.68
Demo Worker Trips	0.06	0.11	1.98	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.52
Time Slice 3/2/2010-7/30/2010 Active Days: 109	6.08	52.99	26.34	0.01	44.15	2.58	46.73	9.22	2.37	11.60	5,429.02
Mass Grading 03/02/2010-09/01/2010	6.08	52.99	26.34	0.01	44.15	2.58	46.73	9.22	2.37	11.60	5,429.02
Mass Grading Dust	0.00	0.00	0.00	0.00	44.12	0.00	44.12	9.21	0.00	9.21	0.00
Mass Grading Off Road Diesel	5.69	47.86	23.26	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,512.84
Mass Grading On Road Diesel	0.34	5.06	1.76	0.01	0.03	0.19	0.22	0.01	0.18	0.19	762.50
Mass Grading Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Time Slice 8/2/2010-9/1/2010 Active Days: 23	7.62	60.13	32.40	0.01	44.16	2.74	46.91	9.23	2.52	11.75	6,354.53
Asphalt 08/01/2010-10/01/2010	1.54	7.14	6.06	0.00	0.01	0.17	0.18	0.00	0.15	0.16	925.51
Paving Off-Gas	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.16	6.21	4.44	0.00	0.00	0.13	0.13	0.00	0.12	0.12	642.10
Paving On Road Diesel	0.06	0.86	0.30	0.00	0.00	0.03	0.04	0.00	0.03	0.03	129.73
Paving Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Mass Grading 03/02/2010-09/01/2010	6.08	52.99	26.34	0.01	44.15	2.58	46.73	9.22	2.37	11.60	5,429.02
Mass Grading Dust	0.00	0.00	0.00	0.00	44.12	0.00	44.12	9.21	0.00	9.21	0.00
Mass Grading Off Road Diesel	5.69	47.86	23.26	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,512.84
Mass Grading On Road Diesel	0.34	5.06	1.76	0.01	0.03	0.19	0.22	0.01	0.18	0.19	762.50
Mass Grading Worker Trips	0.04	0.07	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.68
Time Slice 9/2/2010-9/30/2010 Active Days: 21	1.54	7.14	6.06	0.00	0.01	0.17	0.18	0.00	0.15	0.16	925.51
Asphalt 08/01/2010-10/01/2010	1.54	7.14	6.06	0.00	0.01	0.17	0.18	0.00	0.15	0.16	925.51
Paving Off-Gas	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.16	6.21	4.44	0.00	0.00	0.13	0.13	0.00	0.12	0.12	642.10

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\URBEMIS_projects\Wagon Wheel Construct P2.urb924

Project Name: Wagon Wheel Construction Phase 2

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2010 TOTALS (lbs/day unmitigated)	9.06	84.86	41.06	0.04	31.66	4.16	35.82	6.60	3.83	10.43	9,711.94
2010 TOTALS (lbs/day mitigated)	9.06	76.38	41.06	0.04	31.66	1.55	33.21	6.60	1.43	8.03	9,711.94
2011 TOTALS (lbs/day unmitigated)	41.69	132.82	67.09	0.06	176.12	6.58	182.70	36.78	6.05	42.83	16,053.39
2011 TOTALS (lbs/day mitigated)	37.91	124.89	67.09	0.06	75.84	4.11	79.94	15.84	3.78	19.62	16,053.39

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/2/2010-12/31/2010 Active Days: 87	9.06	84.86	41.06	0.04	31.66	4.16	35.82	6.60	3.83	10.43	9,711.94
Demolition 09/02/2010-02/28/2011	9.06	84.86	41.06	0.04	31.66	4.16	35.82	6.60	3.83	10.43	9,711.94
Fugitive Dust	0.00	0.00	0.00	0.00	31.50	0.00	31.50	6.55	0.00	6.55	0.00
Demo Off Road Diesel	7.11	56.93	29.40	0.00	0.00	3.09	3.09	0.00	2.84	2.84	5,287.67
Demo On Road Diesel	1.89	27.82	9.67	0.04	0.15	1.07	1.21	0.05	0.98	1.03	4,193.76
Demo Worker Trips	0.06	0.11	1.98	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.52
Time Slice 1/3/2011-2/28/2011 Active Days: 41	14.73	**132.82**	**67.09**	**0.06**	**176.12**	**6.58**	**182.70**	**36.78**	**6.05**	**42.83**	**16,053.39**
Demolition 09/02/2010-02/28/2011	8.44	77.80	38.91	0.04	31.66	3.85	35.51	6.60	3.55	10.15	9,711.95
Fugitive Dust	0.00	0.00	0.00	0.00	31.50	0.00	31.50	6.55	0.00	6.55	0.00
Demo Off Road Diesel	6.67	53.30	28.46	0.00	0.00	2.92	2.92	0.00	2.69	2.69	5,287.67
Demo On Road Diesel	1.71	24.40	8.61	0.04	0.15	0.92	1.07	0.05	0.85	0.90	4,193.76
Demo Worker Trips	0.06	0.10	1.84	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.53
Mass Grading 01/03/2011-04/04/2011	6.30	55.02	28.17	0.02	144.46	2.72	147.19	30.18	2.51	32.68	6,341.43
Mass Grading Dust	0.00	0.00	0.00	0.00	144.40	0.00	144.40	30.16	0.00	30.16	0.00
Mass Grading Off Road Diesel	5.63	46.07	23.61	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,637.13
Mass Grading On Road Diesel	0.62	8.87	3.13	0.01	0.05	0.34	0.39	0.02	0.31	0.33	1,525.00
Mass Grading Worker Trips	0.04	0.08	1.43	0.00	0.01	0.00	0.01	0.00	0.00	0.01	179.30
Time Slice 3/1/2011-4/4/2011 Active Days: 25	6.30	55.02	28.17	0.02	144.46	2.72	147.19	30.18	2.51	32.68	6,341.43
Mass Grading 01/03/2011-04/04/2011	6.30	55.02	28.17	0.02	144.46	2.72	147.19	30.18	2.51	32.68	6,341.43
Mass Grading Dust	0.00	0.00	0.00	0.00	144.40	0.00	144.40	30.16	0.00	30.16	0.00
Mass Grading Off Road Diesel	5.63	46.07	23.61	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,637.13
Mass Grading On Road Diesel	0.62	8.87	3.13	0.01	0.05	0.34	0.39	0.02	0.31	0.33	1,525.00
Mass Grading Worker Trips	0.04	0.08	1.43	0.00	0.01	0.00	0.01	0.00	0.00	0.01	179.30
Time Slice 4/5/2011-5/2/2011 Active Days: 20	3.19	16.03	10.43	0.00	0.02	1.31	1.33	0.01	1.20	1.21	1,641.18
Asphalt 04/05/2011-05/02/2011	3.19	16.03	10.43	0.00	0.02	1.31	1.33	0.01	1.20	1.21	1,641.18
Paving Off-Gas	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.17	8.17	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,131.92
Paving On Road Diesel	0.12	1.77	0.62	0.00	0.01	0.07	0.08	0.00	0.06	0.07	304.35
Paving Worker Trips	0.05	0.09	1.64	0.00	0.01	0.00	0.01	0.00	0.00	0.01	204.91
Time Slice 5/5/2011-8/30/2011 Active Days: 84	**41.69**	18.14	20.58	0.01	0.07	1.24	1.30	0.02	1.13	1.16	3,095.26
Building 05/05/2011-08/30/2011	3.79	18.12	20.22	0.01	0.06	1.23	1.30	0.02	1.13	1.16	3,049.95
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	0.17	2.04	1.74	0.00	0.02	0.08	0.10	0.01	0.07	0.08	473.03
Building Worker Trips	0.24	0.41	7.63	0.01	0.05	0.02	0.07	0.02	0.02	0.03	955.72
Coating 05/05/2011-08/30/2011	37.90	0.02	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.31
Architectural Coating	37.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.31

Phase Assumptions

Phase: Demolition 9/2/2010 - 2/28/2011 - Demolition

Building Volume Total (cubic feet): 3360000

Building Volume Daily (cubic feet): 75000

On Road Truck Travel (VMT): 1041.67

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Cranes (399 hp) operating at a 0.43 load factor for 8 hours per day

1 Crushing/Processing Equip (142 hp) operating at a 0.78 load factor for 8 hours per day

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

1 Sweepers/Scrubbers (91 hp) operating at a 0.68 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 1/3/2011 - 4/4/2011 - Default Fine Site Grading Description

Total Acres Disturbed: 37

Maximum Daily Acreage Disturbed: 5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 800 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 378.79

Off-Road Equipment:

1 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/5/2011 - 5/2/2011 - Default Paving Description

Acres to be Paved: 5.1

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 5/5/2011 - 8/30/2011 - Building Construction

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 5/5/2011 - 8/30/2011 - Arch Coatings

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/2/2010-12/31/2010 Active Days: 87	9.06	76.38	41.06	0.04	31.66	1.55	33.21	6.60	1.43	8.03	9,711.94
Demolition 09/02/2010-02/28/2011	9.06	76.38	41.06	0.04	31.66	1.55	33.21	6.60	1.43	8.03	9,711.94
Fugitive Dust	0.00	0.00	0.00	0.00	31.50	0.00	31.50	6.55	0.00	6.55	0.00
Demo Off Road Diesel	7.11	48.45	29.40	0.00	0.00	0.48	0.48	0.00	0.44	0.44	5,287.67
Demo On Road Diesel	1.89	27.82	9.67	0.04	0.15	1.07	1.21	0.05	0.98	1.03	4,193.76
Demo Worker Trips	0.06	0.11	1.98	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.52
Time Slice 1/3/2011-2/28/2011 Active Days: 41	14.73	124.89	**67.09**	**0.06**	75.84	4.11	79.94	15.84	3.78	19.62	**16,053.39**
Demolition 09/02/2010-02/28/2011	8.44	69.87	38.91	0.04	31.66	1.38	33.04	6.60	1.27	7.88	9,711.95
Fugitive Dust	0.00	0.00	0.00	0.00	31.50	0.00	31.50	6.55	0.00	6.55	0.00
Demo Off Road Diesel	6.67	45.36	28.46	0.00	0.00	0.45	0.45	0.00	0.42	0.42	5,287.67
Demo On Road Diesel	1.71	24.40	8.61	0.04	0.15	0.92	1.07	0.05	0.85	0.90	4,193.76
Demo Worker Trips	0.06	0.10	1.84	0.00	0.01	0.00	0.02	0.00	0.00	0.01	230.53
Mass Grading 01/03/2011-04/04/2011	6.30	55.02	28.17	0.02	44.18	2.72	46.90	9.23	2.51	11.74	6,341.43
Mass Grading Dust	0.00	0.00	0.00	0.00	44.12	0.00	44.12	9.21	0.00	9.21	0.00
Mass Grading Off Road Diesel	5.63	46.07	23.61	0.00	0.00	2.38	2.38	0.00	2.19	2.19	4,637.13
Mass Grading On Road Diesel	0.62	8.87	3.13	0.01	0.05	0.34	0.39	0.02	0.31	0.33	1,525.00
Mass Grading Worker Trips	0.04	0.08	1.43	0.00	0.01	0.00	0.01	0.00	0.00	0.01	179.30
Time Slice 3/1/2011-4/4/2011 Active Days: 25	6.30	55.02	28.17	0.02	44.18	2.72	46.90	9.23	2.51	11.74	6,341.43

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\URBEMIS_projects\Wagon Wheel Construct P3.urb924

Project Name: Wagon Wheel Construction Phase 3

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	2.85	23.48	12.78	0.00	100.00	1.17	101.18	20.89	1.08	21.97	2,349.77
2011 TOTALS (lbs/day mitigated)	2.85	23.48	12.78	0.00	30.56	1.17	31.73	6.38	1.08	7.46	2,349.77
2012 TOTALS (lbs/day unmitigated)	106.27	26.38	57.07	0.07	0.34	1.51	1.86	0.12	1.38	1.50	9,266.01
2012 TOTALS (lbs/day mitigated)	96.15	24.96	57.07	0.07	0.34	1.05	1.39	0.12	0.95	1.07	9,266.01

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/12/2011-12/15/2011 Active Days: 69	2.85	23.48	12.78	0.00	**100.00**	1.17	**101.18**	**20.89**	1.08	**21.97**	2,349.77
Fine Grading 09/12/2011-12/15/2011	2.85	23.48	12.78	0.00	100.00	1.17	101.18	20.89	1.08	21.97	2,349.77
Fine Grading Dust	0.00	0.00	0.00	0.00	100.00	0.00	100.00	20.88	0.00	20.88	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.04	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.46
Time Slice 1/3/2012-1/13/2012 Active Days: 9	5.08	26.33	56.18	0.07	0.34	1.51	1.85	0.12	1.38	1.50	9,145.04
Building 01/03/2012-08/30/2012	5.08	26.33	56.18	0.07	0.34	1.51	1.85	0.12	1.38	1.50	9,145.04
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.82	9.57	8.57	0.02	0.09	0.37	0.46	0.03	0.34	0.37	2,514.58
Building Worker Trips	1.12	1.95	37.09	0.05	0.24	0.11	0.35	0.09	0.09	0.17	5,009.27
Time Slice 1/16/2012-8/30/2012 Active Days: 164	**106.27**	**26.38**	**57.07**	**0.07**	0.34	**1.51**	1.86	0.12	**1.38**	1.50	**9,266.01**
Building 01/03/2012-08/30/2012	5.08	26.33	56.18	0.07	0.34	1.51	1.85	0.12	1.38	1.50	9,145.04
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.82	9.57	8.57	0.02	0.09	0.37	0.46	0.03	0.34	0.37	2,514.58
Building Worker Trips	1.12	1.95	37.09	0.05	0.24	0.11	0.35	0.09	0.09	0.17	5,009.27
Coating 01/14/2012-08/30/2012	101.18	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.00	120.96
Architectural Coating	101.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.00	120.96

Phase Assumptions

Phase: Fine Grading 9/12/2011 - 12/15/2011 - Detail Site Grading

Total Acres Disturbed: 30.8

Maximum Daily Acreage Disturbed: 5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Building Construction 1/3/2012 - 8/30/2012 - Building Construction

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 1/14/2012 - 8/30/2012 - Arch Coatings

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/12/2011-12/15/2011 Active Days: 69	2.85	23.48	12.78	0.00	30.56	1.17	31.73	6.38	1.08	7.46	2,349.77
Fine Grading 09/12/2011-12/15/2011	2.85	23.48	12.78	0.00	30.56	1.17	31.73	6.38	1.08	7.46	2,349.77
Fine Grading Dust	0.00	0.00	0.00	0.00	30.55	0.00	30.55	6.38	0.00	6.38	0.00
Fine Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.04	0.82	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.46
Time Slice 1/3/2012-1/13/2012 Active Days: 9	5.08	24.91	56.18	0.07	0.34	1.05	1.38	0.12	0.95	1.07	9,145.04
Building 01/03/2012-08/30/2012	5.08	24.91	56.18	0.07	0.34	1.05	1.38	0.12	0.95	1.07	9,145.04
Building Off Road Diesel	3.14	13.40	10.52	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.82	9.57	8.57	0.02	0.09	0.37	0.46	0.03	0.34	0.37	2,514.58
Building Worker Trips	1.12	1.95	37.09	0.05	0.24	0.11	0.35	0.09	0.09	0.17	5,009.27
Time Slice 1/16/2012-8/30/2012 Active Days: 164	96.15	24.96	**57.07**	**0.07**	0.34	1.05	1.39	0.12	0.95	1.07	**9,266.01**
Building 01/03/2012-08/30/2012	5.08	24.91	56.18	0.07	0.34	1.05	1.38	0.12	0.95	1.07	9,145.04
Building Off Road Diesel	3.14	13.40	10.52	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.82	9.57	8.57	0.02	0.09	0.37	0.46	0.03	0.34	0.37	2,514.58
Building Worker Trips	1.12	1.95	37.09	0.05	0.24	0.11	0.35	0.09	0.09	0.17	5,009.27
Coating 01/14/2012-08/30/2012	91.07	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.00	120.96
Architectural Coating	91.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.90	0.00	0.01	0.00	0.01	0.00	0.00	0.00	120.96

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 9/12/2011 - 12/15/2011 - Detail Site Grading

For Soil Stablizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

The following mitigation measures apply to Phase: Building Construction 1/3/2012 - 8/30/2012 - Building Construction

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 1/14/2012 - 8/30/2012 - Arch Coatings

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\URBEMIS_projects\Wagon Wheel Construct P4.urb924

Project Name: Wagon Wheel Construction Phase 4

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2008 TOTALS (lbs/day unmitigated)	494.05	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
2008 TOTALS (lbs/day mitigated)	444.66	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
2012 TOTALS (lbs/day unmitigated)	2.71	21.99	12.27	0.00	24.00	1.07	25.08	5.01	0.99	6.00	2,349.78
2012 TOTALS (lbs/day mitigated)	2.71	21.99	12.27	0.00	7.34	1.07	8.41	1.53	0.99	2.52	2,349.78
2013 TOTALS (lbs/day unmitigated)	4.03	20.56	37.74	0.05	0.22	1.21	1.43	0.08	1.11	1.18	6,519.42
2013 TOTALS (lbs/day mitigated)	4.03	19.25	37.74	0.05	0.22	0.80	1.02	0.08	0.73	0.81	6,519.42
2014 TOTALS (lbs/day unmitigated)	3.69	18.87	35.43	0.05	0.22	1.08	1.30	0.08	0.98	1.06	6,519.89
2014 TOTALS (lbs/day mitigated)	3.69	17.67	35.43	0.05	0.22	0.73	0.95	0.08	0.66	0.74	6,519.89
2015 TOTALS (lbs/day unmitigated)	3.36	17.25	33.30	0.05	0.22	1.00	1.22	0.08	0.91	0.99	6,520.24
2015 TOTALS (lbs/day mitigated)	3.36	16.16	33.30	0.05	0.22	0.67	0.89	0.08	0.60	0.68	6,520.24

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/10/2008-12/8/2008 Active Days: 21	**494.05**	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
Coating 11/08/2008-12/08/2008	494.05	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
Architectural Coating	493.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.19	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
Time Slice 9/12/2012-12/14/2012 Active Days: 68	2.71	**21.99**	12.27	0.00	**24.00**	1.07	**25.08**	**5.01**	0.99	**6.00**	2,349.78
Fine Grading 09/12/2012-12/15/2012	2.71	21.99	12.27	0.00	24.00	1.07	25.08	5.01	0.99	6.00	2,349.78
Fine Grading Dust	0.00	0.00	0.00	0.00	24.00	0.00	24.00	5.01	0.00	5.01	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.46
Time Slice 1/3/2013-12/31/2013 Active Days: 259	4.03	20.56	**37.74**	**0.05**	0.22	**1.21**	1.43	0.08	**1.11**	1.18	6,519.42
Building 01/03/2013-08/30/2015	4.03	20.56	37.74	0.05	0.22	1.21	1.43	0.08	1.11	1.18	6,519.42
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.49	5.49	5.17	0.02	0.06	0.21	0.27	0.02	0.19	0.21	1,637.08
Building Worker Trips	0.67	1.16	22.37	0.03	0.16	0.07	0.23	0.06	0.06	0.11	3,261.15
Time Slice 1/1/2014-12/31/2014 Active Days: 261	3.69	18.87	35.43	**0.05**	0.22	1.08	1.30	0.08	0.98	1.06	6,519.89
Building 01/03/2013-08/30/2015	3.69	18.87	35.43	0.05	0.22	1.08	1.30	0.08	0.98	1.06	6,519.89
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.45	4.83	4.79	0.02	0.06	0.19	0.25	0.02	0.17	0.19	1,637.24
Building Worker Trips	0.61	1.06	20.75	0.03	0.16	0.07	0.23	0.06	0.06	0.11	3,261.45
Time Slice 1/1/2015-8/28/2015 Active Days: 172	3.36	17.25	33.30	**0.05**	0.22	1.00	1.22	0.08	0.91	0.99	**6,520.24**
Building 01/03/2013-08/30/2015	3.36	17.25	33.30	0.05	0.22	1.00	1.22	0.08	0.91	0.99	6,520.24
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.41	4.25	4.44	0.02	0.06	0.17	0.23	0.02	0.15	0.17	1,637.41
Building Worker Trips	0.55	0.97	19.24	0.03	0.16	0.07	0.23	0.06	0.06	0.12	3,261.63

Phase Assumptions

Phase: Fine Grading 9/12/2012 - 12/15/2012 - Foundation Excavation

Total Acres Disturbed: 4.8

Maximum Daily Acreage Disturbed: 1.2

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Building Construction 1/3/2013 - 8/30/2015 - High-rise construction

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/8/2008 - 12/8/2008 - Arch Coatings

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/10/2008-12/8/2008 Active Days: 21	444.66	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
Coating 11/08/2008-12/08/2008	444.66	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
Architectural Coating	444.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.19	0.33	5.92	0.01	0.03	0.01	0.04	0.01	0.01	0.02	590.49
Time Slice 9/12/2012-12/14/2012 Active Days: 68	2.71	**21.99**	12.27	0.00	7.34	1.07	8.41	1.53	0.99	2.52	2,349.78
Fine Grading 09/12/2012-12/15/2012	2.71	21.99	12.27	0.00	7.34	1.07	8.41	1.53	0.99	2.52	2,349.78
Fine Grading Dust	0.00	0.00	0.00	0.00	7.33	0.00	7.33	1.53	0.00	1.53	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.02	0.04	0.76	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.46
Time Slice 1/3/2013-12/31/2013 Active Days: 259	4.03	19.25	**37.74**	**0.05**	0.22	0.80	1.02	0.08	0.73	0.81	6,519.42
Building 01/03/2013-08/30/2015	4.03	19.25	37.74	0.05	0.22	0.80	1.02	0.08	0.73	0.81	6,519.42
Building Off Road Diesel	2.88	12.59	10.20	0.00	0.00	0.52	0.52	0.00	0.48	0.48	1,621.20
Building Vendor Trips	0.49	5.49	5.17	0.02	0.06	0.21	0.27	0.02	0.19	0.21	1,637.08
Building Worker Trips	0.67	1.16	22.37	0.03	0.16	0.07	0.23	0.06	0.06	0.11	3,261.15
Time Slice 1/1/2014-12/31/2014 Active Days: 261	3.69	17.67	35.43	**0.05**	0.22	0.73	0.95	0.08	0.66	0.74	6,519.89
Building 01/03/2013-08/30/2015	3.69	17.67	35.43	0.05	0.22	0.73	0.95	0.08	0.66	0.74	6,519.89
Building Off Road Diesel	2.63	11.77	9.89	0.00	0.00	0.47	0.47	0.00	0.43	0.43	1,621.20
Building Vendor Trips	0.45	4.83	4.79	0.02	0.06	0.19	0.25	0.02	0.17	0.19	1,637.24
Building Worker Trips	0.61	1.06	20.75	0.03	0.16	0.07	0.23	0.06	0.06	0.11	3,261.45
Time Slice 1/1/2015-8/28/2015 Active Days: 172	3.36	16.16	33.30	**0.05**	0.22	0.67	0.89	0.08	0.60	0.68	**6,520.24**
Building 01/03/2013-08/30/2015	3.36	16.16	33.30	0.05	0.22	0.67	0.89	0.08	0.60	0.68	6,520.24
Building Off Road Diesel	2.40	10.94	9.62	0.00	0.00	0.43	0.43	0.00	0.39	0.39	1,621.20
Building Vendor Trips	0.41	4.25	4.44	0.02	0.06	0.17	0.23	0.02	0.15	0.17	1,637.41
Building Worker Trips	0.55	0.97	19.24	0.03	0.16	0.07	0.23	0.06	0.06	0.12	3,261.63

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 9/12/2012 - 12/15/2012 - Foundation Excavation

For Soil Stablizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

The following mitigation measures apply to Phase: Building Construction 1/3/2013 - 8/30/2015 - High-rise construction

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 11/8/2008 - 12/8/2008 - Arch Coatings

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Ventura County APCD TDM Mitigation Fund Calculation

TC = EE * UC * D * 3 years
where:

TC = Total Cost for TDM Mitigation Fund Program
EE = Excess Emissions over threshold
UC = Unit Cost per pound

$6.00	ROC	in 2006$ (January CPI at 198.3)
$8.77	NOx	in 2006$ (January CPI at 198.3)

D = Days Of Operation

Project:	Oxnard Village Specific Plan		
Completion Date:	2008		
Current CPI:	213.53	March	2008
Annual Inflation Rate:	3.54%		
Days of Operation:	365		
Applicable Threshold:	25	pounds per day	

Pollutant	Summer Daily Emissions	EE	Adjusted UC	Total Cost
ROC	134.5	109.5	$6.43	$771,322
NOx	54.8	29.8	$9.40	$306,822

TDM Fund: ***$771,322***

Note: Based on URBEMIS 2007 emission rates.

URBEMIS Existing Use Operation Results

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\URBEMIS_projects\Wagon wheel Exist.urb924

Project Name: Wagon Wheel Existing

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.75	3.88	19.68	0.00	0.06	0.06	4,621.71

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	28.77	28.32	324.76	0.27	46.61	8.80	26,501.12

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	39.52	32.20	344.44	0.27	46.67	8.86	31,122.83

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Mobile home park	8.52	7.47	88.68	0.07	12.36	2.34	7,077.16
Place of worship	1.25	1.22	13.77	0.01	2.00	0.38	1,135.06
Strip mall	2.85	3.15	35.48	0.03	5.17	0.97	2,927.46
Warehouse	3.61	3.13	35.35	0.03	5.15	0.97	2,916.54
Bowling Alley	7.62	8.30	93.87	0.08	13.63	2.57	7,729.11
Adult Day Care	4.92	5.05	57.61	0.05	8.30	1.57	4,715.79
TOTALS (lbs/day, unmitigated)	28.77	28.32	324.76	0.27	46.61	8.80	26,501.12

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Mobile home park	28.17	4.99	dwelling units	169.00	843.31	7,210.05
Place of worship		9.11	1000 sq ft	17.30	157.60	1,168.55
Strip mall		44.32	1000 sq ft	9.20	407.74	3,014.45
Warehouse		4.96	1000 sq ft	81.90	406.22	3,003.21
Bowling Alley		33.33	1000 sq ft	32.00	1,066.56	7,953.87
Adult Day Care		14.07	1000 sq ft	45.00	633.15	4,844.23
					3,514.58	27,194.36

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.0	1.5	98.1	0.4
Light Truck < 3750 lbs	8.7	2.3	93.1	4.6
Light Truck 3751-5750 lbs	23.6	0.8	99.2	0.0
Med Truck 5751-8500 lbs	11.5	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6

Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.7	0.0	28.6	71.4
Heavy-Heavy Truck 33,001-60,000 lbs	0.2	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.5	66.7	33.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.5	6.7	80.0	13.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Place of worship				3.0	1.5	95.5
Strip mall				2.0	1.0	97.0
Warehouse				2.0	1.0	97.0
Bowling Alley				5.0	2.5	92.5
Adult Day Care				14.0	7.0	79.0

URBEMIS Proposed Use Operation Results

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\URBEMIS_projects\Wagon Wheel Project.urb924

Project Name: Wagon Wheel Proposed Project

Project Location: Ventura County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	85.44	11.90	14.83	0.00	0.05	0.05	15,028.13
TOTALS (lbs/day, mitigated)	85.44	11.90	14.83	0.00	0.05	0.05	15,028.13
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	88.73	75.13	885.28	0.70	120.35	22.76	69,201.48

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	174.17	87.03	900.11	0.70	120.40	22.81	84,229.61

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.91	11.79	5.21	0.00	0.02	0.02	15,011.64
Hearth							
Landscape	0.78	0.11	9.62	0.00	0.03	0.03	16.49
Consumer Products	73.38						
Architectural Coatings	10.37						
TOTALS (lbs/day, unmitigated)	85.44	11.90	14.83	0.00	0.05	0.05	15,028.13

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.91	11.79	5.21	0.00	0.02	0.02	15,011.64
Hearth							
Landscape	0.78	0.11	9.62	0.00	0.03	0.03	16.49
Consumer Products	73.38						
Architectural Coatings	10.37						
TOTALS (lbs/day, mitigated)	85.44	11.90	14.83	0.00	0.05	0.05	15,028.13

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Apartments low rise	6.81	5.95	70.85	0.06	9.66	1.83	5,553.79
Condo/townhouse general	51.41	43.86	521.86	0.41	71.14	13.45	40,906.33
Condo/townhouse high rise	18.48	14.62	173.92	0.14	23.71	4.48	13,633.28
City park	0.93	0.93	10.46	0.01	1.46	0.28	834.70
Strip mall	10.79	9.49	105.00	0.08	13.93	2.64	8,017.40
Live/Work Commercial Space	0.31	0.28	3.19	0.00	0.45	0.08	255.98
TOTALS (lbs/day, unmitigated)	88.73	75.13	885.28	0.70	120.35	22.76	69,201.48

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments low rise	2.10	6.72	dwelling units	112.00	752.64	5,633.71
Condo/townhouse general	38.30	5.86	dwelling units	946.00	5,543.56	41,495.00
Condo/townhouse high rise	4.80	4.18	dwelling units	442.00	1,847.56	13,829.47
City park		50.00	acres	3.00	150.00	853.51
Strip mall		42.94	1000 sq ft	46.40	1,992.42	8,123.56
Live/Work Commercial Space		11.01	1000 sq ft	4.00	44.04	262.15
					10,330.22	70,197.40

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.0	1.5	98.1	0.4
Light Truck < 3750 lbs	8.7	2.3	93.1	4.6
Light Truck 3751-5750 lbs	23.6	0.8	99.2	0.0
Med Truck 5751-8500 lbs	11.5	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.7	0.0	28.6	71.4
Heavy-Heavy Truck 33,001-60,000 lbs	0.2	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.5	66.7	33.3	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.5	6.7	80.0	13.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
Live/Work Commercial Space				4.0	2.0	94.0

Air Quality Human Health Risk Assessment

Appendix B -- Air Quality
Human Health Risk Assessment

Human health risk involves many factors with a number of uncertainties regarding the actual effect of a toxic contaminant. These uncertainties include:

- The underlying unit risk factor is typically based on animal studies and correlated analyses from human health studies. Depending on the source of the data and the nature of the study, safety factors of from 1 to 10,000 times the actual level at which effects were determined can be used. A safety factor of 30 was applied by the US EPA regarding diesel engine emissions when it established the reference concentration for chronic inhalation exposure.
- The fate and transport of the contaminant to the receptor. Some contaminants not only disperse during transport from the release site to the receptor, they also change chemically as a result of exposure to other chemicals. Such changes can either be detrimental or beneficial. Also, the models used to calculate transport phenomena are subject to many assumptions regarding variable environmental parameters, as discussed below regarding the SCREEN3 model.
- The accuracy of the estimation of the initial source release. Average emission factors for diesel engines were used to generate the emission rate used in modeling. Such factors may differ by an order of magnitude depending on the actual machinery in use, its operating conditions (how much load the machinery operates at), and the frequency at which it is maintained.
- Exposure parameter estimation is based on standard assumptions regarding body weight, period exposed, life expectancy, population characteristics, and lifestyle that may not be reflective of actual exposure conditions. The typically assumption of daily lifetime exposure generally produces a moderate to high overestimate of actual exposure.

The slope factor is used to estimate an upper-bound probability of an individual developing cancer (but not necessarily dying of cancer) as a result of a lifetime of exposure to a particular level of a potential carcinogen and was based on the reference concentration for chronic inhalation in part. The unit risk factor for inhalation is calculated from the slope factor by dividing it by 70 kg (average weight of adult) and multiplying by the daily inhalation rate (20 cubic meters for adults) and 10^{-3} (necessary to transform units from milligrams [mg] to micrograms [μg]). The unit risk factor for diesel fuel emissions is 3×10^{-4} $(\mu g/m^3)^{-1}$. The estimate of potential excess cancers should not be equated to excess cancer deaths. This is the estimated chance that a cancer would develop, and includes both terminal and non-terminal cancers.

The health effects of diesel particulates on residential receptors are assessed over a 70-year lifetime analysis period in keeping with standard cancer risk assessment methodology. The construction activities at the site would occur intermittently over a five-year period, thereby reducing the possible effects over a lifetime period.

The inhalation chronic reference concentration (RfC) is an estimate of a daily inhalation exposure of the human population including sensitive subgroups (i.e.: children, asthmatics, etc.) that is likely to be without an appreciable risk of deleterious effects during a lifetime. The RfC for diesel engine emissions was established in 1993 at 5.0×10^{-3} milligrams per cubic meter of inhaled air and reconfirmed in 2003 (USEPA, *IRIS*, http://www.epa.gov/iris/subst/0642.htm). As discussed above, this concentration includes an uncertainty factor of 30 (a factor of 10x to protect sensitive individuals and 3x to adjust for interspecies extrapolation). The RfC can be translated to the reference dose (RfD) by adjusting for body weight (standard default factor set at 70 kilograms) and average daily volume of air inhaled (standard default factor of 20 cubic meters per day for adults). The RfD serves as a reference point from which to gauge the potential effect of a chemical at other doses. Like the RfC, doses less than the RfD are not likely to be associated with adverse health risks. This is not to say that all doses below the RfD are "acceptable" or "risk-free" nor that all doses in excess of the RfD are "unacceptable" or will cause adverse effects. However, it does serve as the benchmark from which the potential for chronic health effects can be determined. Per Section *8.3.1 Noncancer Chronic Inhalation Health Impacts* of the *Air Toxics Hot Spots*

Program Guidance Manual for the Preparation of Risk Assessments (OEHHA, August, 2003), noncancer chronic inhalation health impacts can also be calculated by dividing the substance-specific annual average air concentration in microgram per cubic meter ($\mu g/m^3$) by the chronic inhalation Reference Exposure Level (REL) ($\mu g/m^3$), which is the same as the RfC. Both calculation methods are presented.

SCREEN3 was used to model the transport of emissions from the grading area to a distant receptor. It is a single source Gaussian plume model that provides maximum ground-level concentrations for point, area, flare, and volume sources, as well as concentrations in the cavity zone, and concentrations due to inversion break-up and shoreline fumigation. SCREEN3 is a screening version of the Industrial Source Complex version 3 (ISC3) model. It was developed to provide an easy method for deciding whether more complicated models should be used for evaluating the impact of an air pollution source. The EPA screening procedure involves three phases: (1) use of simple nomographs and shortcut methods to determine if the source clearly poses an air quality problem (maximum concentration location nomographs), (2.) if the first phase indicates a potential problem, the use of more detailed screening (basic modeling using the Gaussian Dispersion model with special cases) such as available in the SCREEN program, (3.) if the second phase indicates a need for further study, the use of detailed air quality models would be required to provide more accurate predictions. The detailed models consider various terrain features, complicated urban or rural environments, long term average concentrations, complicated sources, variable emission rates, etc. Phase 1 and 2 analyses are conservative in that the impact of sources is likely to be overestimated due to the use of conservative (worst case) assumptions regarding the dispersion and transport of the pollutant. Phase 1 analysis is the most conservative and details are available in most elementary texts on air pollution that contain nomographs depicting the maximum concentration and location as a function of wind speed, source strength, and plume height. The Phase 2 analysis is somewhat less conservative than the Phase 1 approach. If a Phase 2 analysis indicates no significant impact of a source, further modeling may not be required for regulatory purposes. For the purpose of a CEQA analysis, the conservative Phase 2 estimate allows for an examination of the possibility of impacts against significance thresholds.

SCREEN3 has the capability of evaluating a full range of meteorological conditions, including all stability classes and wind speeds (wind speeds 1, 2, 3 m/sec for all stability classes, additional wind speeds of: 4 m/s for B-F stability; 5 m/s for B-E stability, 8, 10 m/sec for C and D; and 15, 20 m/sec for D stability class). Under limiting mixing conditions, SCREEN3 explicitly calculates the effects of multiple reflections of the plume off the elevated inversion and ground (increase in maximum concentration between 100 and 200%). The model also includes buoyancy-induced dispersion (BID) which may increase the maximum concentrations for elevated sources with large buoyancy by as much as 25%. The BID method increases the dispersion parameters to include distance depended plume rise. This calculation methodology provides for a more conservative estimate of concentrations, in keeping with the purpose of a screening model.

The SCREEN3 model runs performed to determine the worst case concentration for the grading scenarios used a single worst case daytime stability class ("D" stability). The "D" stability class is equal to heavy overcast conditions, but under actual weather conditions at the site, the "B" and "C" stability classes predominate most of the time. Use of B and C class stabilities would result in decreases in maximum concentrations of 43% and 17%, respectively. The model was also run using worst case wind angles and speed, essentially allowing the pollutants to be transported to the point of maximum impact (PMI) with limited dispersion and without consideration of changes in wind speeds and direction as occurs under typical weather conditions. To examine the degree to which the SCREEN3 methodology could overestimate impacts, SCREEN3 runs were made of the Risk Characterization Scenarios for school buses and truck stops conducted by the ARB (October 2000). The ARB calculated the health risk for these scenarios using the more complex ISCST3 model, which uses a data set of wind speed, stabilities, mixing heights and other meteorological parameters to calculate the concentration at specific receptor locations. A comparison of the results of the two methods indicates that the concentration reported by the SCREEN3 model is approximately 10-20 times greater than if the more complex model were used. Several underlying limitations to the use of models are noted. There is frequently the perception that air quality dispersion models provide a fully accurate prediction of the concentrations that could be expected. In this case, the underlying Gaussian plume model used in ISC and SCREEN3 is a highly simplified model of an extremely complex phenomenon. The Gaussian plume model uses a number of simplified assumptions, simplified physics, and parameterization of complex turbulence and diffusion processes, all of which provide for a conservative estimate of concentrations. These include:

- wind speed and direction are constant from source to receptor and constant during the averaging interval;
- atmospheric turbulence (stability) is consistent throughout the travel path and for the averaging interval;
- all of the plume is conserved (no deposition of the pollutant, no change in the characteristics of the pollutant, no absorption of the pollutant by vegetation, plume reaching the ground is reflected back into the plume);
- dispersion occurs only in the crosswind and vertical dimensions with no downwind dispersion (since particles travel at different rates based on mass, it can be anticipated that some downwind dispersion is likely);
- the dispersion pattern is probabilistic, describable by the Gaussian distribution, and is constant (reasonable assumption for crosswind conditions, but vertical dispersion likely to be much more variable); and
- the plume expands in a conical fashion (only one of many observed behaviors).

Given the underlying use of the Gaussian plume model and the conservative assumptions made in the use of the SCREEN3 model, the concentrations reported in the EIR are considered to over-estimate actual impacts by more than an order of magnitude.

Construction and Grading Emissions

08/07/07
15:44:39

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Oxnard Village Specific Plan

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                   =        AREA
   EMISSION RATE (G/(S-M**2))    =     .135700E-05
   SOURCE HEIGHT (M)             =       3.1700
   LENGTH OF LARGER SIDE (M)     =     213.3600
   LENGTH OF SMALLER SIDE (M)    =     106.6800
   RECEPTOR HEIGHT (M)           =       1.5000
   URBAN/RURAL OPTION            =       URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =      .000 M**4/S**3;  MOM. FLUX =      .000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)    (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
 -------  ----------  ----  -----  -----  ------  ------  -------
     10.   18.46        5     1.0    1.0 10000.0    3.17     20.
    100.   26.17        5     1.0    1.0 10000.0    3.17      9.
    200.   17.37        5     1.0    1.0 10000.0    3.17     20.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND    10. M:
    126.   27.39        5     1.0    1.0 10000.0    3.17     23.

*********************************
*** SCREEN DISCRETE DISTANCES ***
*********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)    (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
 -------  ----------  ----  -----  -----  ------  ------  -------
      5.   17.93        5     1.0    1.0 10000.0    3.17     20.
     15.   18.97        5     1.0    1.0 10000.0    3.17     20.
     25.   19.94        5     1.0    1.0 10000.0    3.17     19.
     35.   20.91        5     1.0    1.0 10000.0    3.17     14.

     ***************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
```

```
***************************************

CALCULATION          MAX CONC     DIST TO    TERRAIN
 PROCEDURE          (UG/M**3)     MAX (M)     HT (M)
--------------      ----------    -------    -------
SIMPLE TERRAIN        27.39          126.         0.

***************************************************
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
***************************************************
```

Downwind Dispersal of PM10 from "fence line" *

Change in PM10 concentration from edge of construction area
(Fenceline = 1 meter):

$Cx = 0.9403Co*e^{(-0.0462x)}$

where:

Cx is the predicted PM10 concentration at *x* meters from the fence line

Co is the PM10 concentration at the fence line

e is the natural logarithm

x is the distance in meters from the fence line to the nearest receptor

Co=	27.4	ug/cubic meters from SCREEN3 output
x=	5.0	meters to nearest downwind receptor
Cx=	20.4	ug/m^3 at receptor

* Source: SCAQMD, June 2003, *Final Localized Significance Threshold Methodology*, Chapter 2

Inhalation Health Risk
Exposure to Air Contaminant
Oxnard Village Specific Plan

Project:	Site Grading
Chemical of Concern:	Diesel Particulates
Reference Dose, Inhal (RfDi):	1.43E-03
Cancer Slope Factor, Inhl (SFi):	1.10E+00
Chronic Inhalation REL	5 ug/cu m
Ambient Air Concentration:	20.40 ug/cu m

NonCarcinogenic

Chronic Health Risk Equation: Intake/Reference Dose

$$\text{Intake} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}$$

Where:

Intake =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
BW =	Body weight, kg
AT =	Averaging time

Note: Absorption through lungs assumed at 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	120	120	120
EF =	40.0	40.0	40.0
ED =	1	1	1
BW =	70	15	70
AT =	365	365	365
Intake =	***6.39E-04***	***1.49E-03***	***6.39E-04***
Chronic Hazard Quotient =	***4.47E-01***	***1.04E+00***	***4.47E-01***
Exceed Criterion (>1)?	**No**	**Yes**	**No**

OEHHA Chronic Risk:	Annual average concentration/REL
Maximum 1-Hr all Stabilities:	27.39 ug/cu m
EPA annualization factor:	0.1

Chronic Hazard Quotient = ***0.5***

Carcinogenic

Cancer Health Risk Risk = Exposure * Slope Factor

$$\text{Exposure} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}\ \text{mg/kg-day}$$

Where:

Exposure =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate, m^3/day
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
AT =	Averaging time
BW =	Body Weight

Note: Fraction absorbed (ABS) assumed to be 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	120	120	120
EF =	40.0	40.0	40.0
ED =	1	1	1
AT =	25550	25550	25550
BW =	70	15	70
Exposure =	***9.12E-06***	***2.13E-06***	***9.12E-06***
Excess Lifetime Cancer Risk =	***1.00E-05***	***2.34E-06***	***1.00E-05***
Criterion =	**1.0E-06**	**1.0E-06**	**1.0E-06**
Exceed Criterior	**Yes**	**Yes**	**Yes**

Air Quality Human Health Risk Assessment with Mitigation

Construction and Grading Emissions

Project Name: [illegible]
Construction Year: [illegible]

Activity	Equipment	Number	Default Load Factor	Usage per day in hours	Composite Emission Factors, lbs/hr: CO / NOx / PM10 / SOx / VOC	Emissions, lbs/day: CO / NOx / PM10 / SOx / VOC	Annual Use Days	Emissions, tons/yr: CO / NOx / PM10 / SOx / VOC
Grading and Site Preparation								
	Bore/Drill Rigs		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Crawler Tractors		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Crushing/Proc. Equipment	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Dumpers/Tenders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Excavators	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Forklifts		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Graders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Off-Highway Tractors		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Off-Highway Trucks		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Plate Compactors		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rollers		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Dozers	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Loaders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Scrapers	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Skid Steer Loaders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Surfacing Equipment		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Tractors/Loaders/Backhoes	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Trenchers		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Welders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grading and Site Preparation					Total lbs/day	[illegible]	Total	[illegible]
Building, Street, and Utilities Installation								
	Cement and Mortar Mixers	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Concrete/Industrial Saws		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Cranes		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Excavators		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Forklifts		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Generator Sets	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rough Terrain Forklifts		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Loaders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Tractors/Loaders/Backhoes	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Trenchers		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Building, Street, and Utilities Installation					Total lbs/day	[illegible]	Total	[illegible]
Asphalt Paving Operations								
	Graders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Pavers	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Paving Equipment	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rollers	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Asphalt Pavement (VOC/ROG)							
	[illegible] ***	1.2	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Asphalt Paving Operations					Total lbs/day	[illegible]	Total	[illegible]

Particulate Emission Calculations

Emission lbs/day PM10	Emissions tons/yr PM10
[illegible]	[illegible]
subtotal [illegible]	[illegible]

[illegible] Mitigated Emissions [illegible]

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]		[illegible]
Particulate Emission [illegible]		[illegible]

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Oxnard Village Phase 1 Construction B20 only

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =        AREA
   EMISSION RATE (G/(S-M**2)) =    .154476E-05
   SOURCE HEIGHT (M)          =       3.1500
   LENGTH OF LARGER SIDE (M)  =     213.3600
   LENGTH OF SMALLER SIDE (M) =     106.6600
   RECEPTOR HEIGHT (M)        =       1.5000
   URBAN/RURAL OPTION         =       URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX =     .000 M**4/S**3;  MOM. FLUX =     .000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)    (UG/M**3)   STAB   (M/S)  (M/S)   (M)    HT (M)   (DEG)
 -------  ----------  ----   -----  -----  ------  ------  -------
     1.    20.03       5      1.0    1.0 10000.0    3.15     20.
   100.    29.92       5      1.0    1.0 10000.0    3.15      9.
   200.    19.78       5      1.0    1.0 10000.0    3.15     20.
   300.    12.33       5      1.0    1.0 10000.0    3.15      0.
   400.    8.576       5      1.0    1.0 10000.0    3.15      0.
   500.    6.290       5      1.0    1.0 10000.0    3.15      0.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   125.    31.30       5      1.0    1.0 10000.0    3.15     22.

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)    (UG/M**3)   STAB   (M/S)  (M/S)   (M)    HT (M)   (DEG)
 -------  ----------  ----   -----  -----  ------  ------  -------
   106.    30.39       5      1.0    1.0 10000.0    3.15      8.

       ***************************************
       *** SUMMARY OF SCREEN MODEL RESULTS ***
       ***************************************

 CALCULATION           MAX CONC      DIST TO    TERRAIN
  PROCEDURE           (UG/M**3)      MAX (M)     HT (M)
 --------------      -----------     -------    -------
 SIMPLE TERRAIN         31.30          125.        0.
```

Inhalation Health Risk

Exposure to Air Contaminant

Oxnard Village Specific Plan with Mitigation Measures

Project:	Phase 1 Site Grading using B20 only
Chemical of Concern:	Diesel Particulates
Reference Dose, Inhal (RfDi):	1.43E-03
Cancer Slope Factor, Inhl (SFi):	1.10E+00
Chronic Inhalation REL	5 ug/cu m
Ambient Air Concentration:	3.13 ug/cu m

Note: Annualized concentration based on maximum one hour at worst case stability

NonCarcinogenic

Chronic Health Risk Equation: Intake/Reference Dose

$$\text{Intake} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}$$

Where:

Intake =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
BW =	Body weight, kg
AT =	Averaging time

Note: Absorption through lungs assumed at 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	200	200	200
EF =	66.7	66.7	66.7
ED =	1	1	1
BW =	70	15	70
AT =	365	365	365
Intake =	*1.63E-04*	*3.81E-04*	*1.63E-04*
Chronic Hazard Quotient =	*1.14E-01*	*2.67E-01*	*1.14E-01*
Exceed Criterion (>1)?	**No**	**No**	**No**

OEHHA Chronic Risk:	Annual average concentration/REL
Maximum 1-Hr all Stabilities:	31.30 ug/cu m
EPA annualization factor:	0.1
Chronic Hazard Quotient =	***0.6***

Carcinogenic

Cancer Health Risk Risk = Exposure * Slope Factor

$$\text{Exposure} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}\ \text{mg/kg-day}$$

Where:

Exposure =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate, m^3/day
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
AT =	Averaging time
BW =	Body Weight

Note: Fraction absorbed (ABS) assumed to be 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	200	200	200
EF =	66.7	66.7	66.7
ED =	1.5	1.5	1.5
AT =	25550	25550	25550
BW =	70	15	70
Exposure =	*3.50E-06*	*8.17E-06*	*3.50E-06*
Excess Lifetime Cancer Risk =	*3.85E-06*	*8.98E-06*	*3.85E-06*
Criterion =	1.0E-05	1.0E-05	1.0E-05
Exceed Criterion	**No**	**No**	**No**

Construction and Grading Emissions

Project Name: [illegible]
Construction Year: [illegible]

Activity	Equipment	Number	Default Load factor	Usage per day (hours)	Composite Emission Factors (lb/hr) CO	NOx	PM10	SOx	VOC	Emissions (lbs/day) CO	NOx	PM10	SOx	VOC	Annual Use Days	Emissions (tons/yr) CO	NOx	PM10	SOx	VOC
Grading and Site Preparation																				
	Bore/Drill Rigs		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Crawler Tractors		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Crushing/Proc. Equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Dumpers/Tenders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Excavators	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Forklifts		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Graders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Off-Highway Tractors		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Off-Highway Trucks		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Plate Compactors		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rollers		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Dozers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Loaders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Scrapers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Skid Steer Loaders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Surfacing Equipment		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Tractors/Loaders/Backhoes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Trenchers		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Welders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Grading and Site Preparation									Total lbs/day	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Building, Sewer, and Utilities Installation																				
	Cement and Mortar Mixers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Concrete/Industrial Saws		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Cranes		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Excavators		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Forklifts		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Generator Sets	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rough Terrain Forklifts		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Loaders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Tractors/Loaders/Backhoes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Trenchers		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Building, Sewer, and Utilities Installation									Total lbs/day	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Asphalt Paving Operations																				
	Graders		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Pavers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Paving Equipment	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rollers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Asphalt Pavement (VOC/ROG)								[illegible]					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Onroad Sources ***	[illegible]	[illegible]																	
Asphalt Paving Operations									Total lbs/day	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Particulate Emission Calculations

Emission g/day PM10	Emissions g/day PM2.5
[illegible]	[illegible]

Use of BACT *** [illegible]
Mitigated Emissions [illegible]

[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]
Particulate Emission [illegible]		[illegible]

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Oxnard Village Phase 1 construction Tier 4 only

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                 =        AREA
   EMISSION RATE (G/(S-M**2))  =    .132190E-05
   SOURCE HEIGHT (M)           =      3.1500
   LENGTH OF LARGER SIDE (M)   =    213.3600
   LENGTH OF SMALLER SIDE (M)  =    106.6600
   RECEPTOR HEIGHT (M)         =      1.5000
   URBAN/RURAL OPTION          =       URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX =     .000 M**4/S**3;  MOM. FLUX =     .000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)    (UG/M**3)   STAB   (M/S)  (M/S)   (M)    HT (M)   (DEG)
  -------  ----------  ----  -----  -----  ------  ------  -------
     1.    17.14        5     1.0    1.0 10000.0    3.15     20.
   100.    25.60        5     1.0    1.0 10000.0    3.15      9.
   200.    16.93        5     1.0    1.0 10000.0    3.15     20.
   300.    10.56        5     1.0    1.0 10000.0    3.15      0.
   400.    7.339        5     1.0    1.0 10000.0    3.15      0.
   500.    5.383        5     1.0    1.0 10000.0    3.15      0.

 MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   125.    26.78        5     1.0    1.0 10000.0    3.15     22.

 *********************************
 *** SCREEN DISCRETE DISTANCES ***
 *********************************

 *** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)    (UG/M**3)   STAB   (M/S)  (M/S)   (M)    HT (M)   (DEG)
  -------  ----------  ----  -----  -----  ------  ------  -------
   106.    26.01        5     1.0    1.0 10000.0    3.15      8.

        ***************************************
        *** SUMMARY OF SCREEN MODEL RESULTS ***
        ***************************************

 CALCULATION          MAX CONC     DIST TO    TERRAIN
  PROCEDURE          (UG/M**3)     MAX (M)     HT (M)
 --------------      -----------   -------    -------
 SIMPLE TERRAIN        26.78         125.        0.
```

Inhalation Health Risk
Exposure to Air Contaminant
Oxnard Village Specific Plan with Mitigation Measures

Project:	Phase 1 Site Grading using Tier 4 equipment only
Chemical of Concern:	Diesel Particulates
Reference Dose, Inhal (RfDi):	1.43E-03
Cancer Slope Factor, Inhl (SFI):	1.10E+00
Chronic Inhalation REL	5 ug/cu m
Ambient Air Concentration:	2.68 ug/cu m

Note: Annualized concentration based on maximum one hour at worst case stability

NonCarcinogenic

Chronic Health Risk Equation: Intake/Reference Dose

$$\text{Intake} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}$$

Where:

Intake =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	inhalation rate
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
BW =	Body weight, kg
AT =	Averaging time

Note: Absorption through lungs assumed at 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	200	200	200
EF =	66.7	66.7	66.7
ED =	1	1	1
BW =	70	15	70
AT =	365	365	365
Intake =	1.40E-04	3.26E-04	7.40E-04
Chronic Hazard Quotient =	9.79E-02	2.28E-01	8.79E-02
Exceed Criterion (>1)?	No	No	No

OEHHA Chronic Risk:	Annual average concentration/REL
Maximum 1-Hr all Stabilities:	26.78 ug/cu m
EPA annualization factor:	0.1
Chronic Hazard Quotient =	0.5

Carcinogenic

Cancer Health Risk Risk = Exposure * Slope Factor

$$\text{Exposure} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}\ \text{mg/kg-day}$$

Where:

Exposure =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate, m^3/day
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
AT =	Averaging time
BW =	Body Weight

Note: Fraction absorbed (ABS) assumed to be 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	200	200	200
EF =	66.7	66.7	66.7
ED =	1.5	1.5	1.5
AT =	25550	25550	25550
BW =	70	15	70
Exposure =	2.99E-06	6.99E-06	2.99E-06
Excess Lifetime Cancer Risk =	3.29E-06	7.69E-06	3.29E-06
Criterion =	1.0E-05	1.0E-05	1.0E-05
Exceed Criterion	No	No	No

Construction and Grading Emissions

Project Name: [illegible]
Construction Year: 2019

Activity	Equipment	Number	Default Load factor	Usage per day (in hours)	Composite Emission Factors, lbs/hr	Emissions, lbs/day	Annual Use Days	Emissions, tons/yr
Grading and Site Preparation								
	Bore/Drill Rigs	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Crawler Tractors	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Crushing/Proc. Equipment	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Dumpers/Tenders	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Excavators	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Forklifts	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Graders	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Off-Highway Tractors	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Off-Highway Trucks	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Other Construction Equipment	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Plate Compactors	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rollers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Rubber Tired Dozers	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Building, Street, and Utilities Installation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Asphalt Paving Operation	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Particulate Emission Calculations

[illegible]

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Oxnard Village P1 Construction Tier4 + B20

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                  =        AREA
   EMISSION RATE (G/(S-M**2))   =    .118970E-05
   SOURCE HEIGHT (M)            =      3.1500
   LENGTH OF LARGER SIDE (M)    =    213.3600
   LENGTH OF SMALLER SIDE (M)   =    106.6600
   RECEPTOR HEIGHT (M)          =      1.5000
   URBAN/RURAL OPTION           =       URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX =     .000 M**4/S**3;  MOM. FLUX =     .000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN AUTOMATED DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME   MAX DIR
   (M)    (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   (DEG)
 -------  ----------  ----   -----  -----  ------   ------  -------
     1.    15.43        5     1.0     1.0 10000.0    3.15     20.
   100.    23.04        5     1.0     1.0 10000.0    3.15      9.
   200.    15.24        5     1.0     1.0 10000.0    3.15     20.
   300.    9.499        5     1.0     1.0 10000.0    3.15      0.
   400.    6.605        5     1.0     1.0 10000.0    3.15      0.
   500.    4.845        5     1.0     1.0 10000.0    3.15      0.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
   125.    24.10        5     1.0     1.0 10000.0    3.15     22.

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

   DIST     CONC              U10M   USTK  MIX HT   PLUME   MAX DIR
   (M)    (UG/M**3)   STAB   (M/S)  (M/S)    (M)    HT (M)   (DEG)
 -------  ----------  ----   -----  -----  ------   ------  -------
   106.    23.40        5     1.0     1.0 10000.0    3.15      8.

            ***************************************
            *** SUMMARY OF SCREEN MODEL RESULTS ***
            ***************************************

 CALCULATION          MAX CONC      DIST TO    TERRAIN
  PROCEDURE          (UG/M**3)      MAX (M)     HT (M)
 --------------     -----------     -------    -------
 SIMPLE TERRAIN        24.10          125.         0.
```

Inhalation Health Risk

Exposure to Air Contaminant

Oxnard Village Specific Plan with Mitigation Measures

Project:	Phase 1 Site Grading using B20 and Tier 4 equipment
Chemical of Concern:	Diesel Particulates
Reference Dose, Inhal (RfDi):	1.43E-03
Cancer Slope Factor, Inhl (SFi):	1.10E+00
Chronic Inhalation REL	5 ug/cu m
Ambient Air Concentration:	2.34 ug/cu m

Note: Annualized concentration based on maximum one hour at worst case stability

NonCarcinogenic

Chronic Health Risk Equation: Intake/Reference Dose

$$\text{Intake} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}$$

Where:

Intake =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
BW =	Body weight, kg
AT =	Averaging time

Note: Absorption through lungs assumed at 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	200	200	200
EF =	66.7	66.7	66.7
ED =	1	1	1
BW =	70	15	70
AT =	365	365	365
Intake =	*1.22E-04*	*2.85E-04*	*1.22E-04*
Chronic Hazard Quotient =	*8.55E-02*	*2.00E-01*	*8.55E-02*
Exceed Criterion (>1)?	**No**	**No**	**No**

OEHHA Chronic Risk:	Annual average concentration/REL
Maximum 1-Hr all Stabilities:	23.40 ug/cu m
EPA annualization factor:	0.1

Chronic Hazard Quotient = ***0.5***

Carcinogenic

Cancer Health Risk Risk = Exposure * Slope Factor

$$\text{Exposure} = \frac{CA * Inh * EF * ED}{BW * AT * 1000\ ug/mg}\ \text{mg/kg-day}$$

Where:

Exposure =	Daily Dose averaged over lifetime (LADD)
CA =	Concentration in air, ug/cu m
Inh =	Inhalation rate, m^3/day
EF =	Exposure frequency in days per year
ED =	Exposure duration in years
AT =	Averaging time
BW =	Body Weight

Note: Fraction absorbed (ABS) assumed to be 100%

	Residential		Occupational
	Adult	Child	Adult
Inh =	20	10	20
Operating hours/day =	8	8	8
Operating days/year =	200	200	200
EF =	66.7	66.7	66.7
ED =	1.5	1.5	1.5
AT =	25550	25550	25550
BW =	70	15	70
Exposure =	*2.62E-06*	*6.11E-06*	*2.62E-06*
Excess Lifetime Cancer Risk =	*2.88E-06*	*6.72E-06*	*2.88E-06*
Criterion =	1.0E-05	1.0E-05	1.0E-05
Exceed Criterion	**No**	**No**	**No**

CALINE 4 Modeling Results

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Oxnard Village - Oxnard Blvd/Vineyard
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	75. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	1.5 PPM		
SIGTH=	10. DEGREES	TEMP=	9.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Vineyard EB	30	60	140	93	AG	1275	6.0	.0	16.8
B. Vyrd EB exit	170	113	240	210	AG	2118	6.0	.0	16.8
C. Vineyard WB	219	210	195	170	AG	2508	6.0	.0	16.8
D. Vyrd WB thru	195	170	165	126	AG	1146	6.0	.0	16.8
E. Vyrd WB LT	195	168	168	123	AG	1333	6.0	.0	13.2
F. Vyrd WB exit	135	105	30	75	AG	1637	6.0	.0	13.2
G. Ox NB LT	176	0	150	90	AG	309	6.0	.0	13.2
H. Ox NB Thru	182	0	158	95	AG	1014	6.0	.0	13.2
I. Ox NB RT	188	0	165	96	AG	1101	6.0	.0	13.2
J. Ox NB Exit	150	120	126	210	AG	1320	6.0	.0	13.2
K. Ox SB	110	210	120	168	AG	1515	6.0	.0	16.8
L. Ox SB Thru	120	168	135	114	AG	1129	6.0	.0	16.8
M. Ox SB LT	123	168	140	120	AG	204	6.0	.0	13.2
N. Ox SB Exit	144	84	165	0	AG	2647	6.0	.0	16.8

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Recpt 1	93	129	4.8
2. Recpt 2	180	210	4.8
3. Recpt 3	258	177	1.8
4. Recpt 4	66	42	4.8
5. Recpt 5	122	15	1.8
6. Bus Stop	60	90	1.8
7. Bus Stop	123	141	1.8
8. Bus Stop	159	149	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Oxnard Village - Oxnard Blvd/Vineyard
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
1. Recpt 1	140.	2.7	.2	.0	.0	.0	.0	.2	.0	.2
2. Recpt 2	183.	2.6	.0	.2	.0	.2	.2	.0	.0	.1
3. Recpt 3	245.	2.7	.0	.4	.0	.2	.2	.2	.0	.0
4. Recpt 4	46.	2.6	.3	.2	.1	.0	.1	.2	.0	.0
5. Recpt 5	28.	2.8	.0	.3	.1	.0	.0	.0	.0	.1
6. Bus Stop	97.	3.4	.4	.0	.0	.0	.0	1.1	.0	.1
7. Bus Stop	159.	3.0	.0	.0	.0	.0	.0	.0	.0	.2
8. Bus Stop	65.	2.7	.0	.5	.2	.3	.3	.0	.0	.0

CONC/LINK (PPM) columns A–H above.

RECEPTOR	I	J	K	L	M	N
1. Recpt 1	.1	.0	.0	.0	.0	.4
2. Recpt 2	.2	.0	.0	.0	.0	.2
3. Recpt 3	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0
5. Recpt 5	.0	.0	.0	.0	.0	.4
6. Bus Stop	.1	.0	.0	.0	.0	.2
7. Bus Stop	.0	.0	.0	.5	.0	.5
8. Bus Stop	.0	.0	.0	.0	.0	.0

Appendix C

Historic Resources Report and Peer Reviews

HISTORIC RESOURCES

REPORT

for

A 64-Acre Parcel at Wagon Wheel Junction

Prepared for:

Daly Owens Group

Real Estate Development
31304 Via Colinas, Suite 103,
Westlake Village, California, 91362

Attn:
Mr. Joshua Haskins

By
POST/HAZELTINE ASSOCIATES
2607 Orella Street
Santa Barbara, CA 93105
(805) 682-5751
(email: pampost@earthlink.net)

September 30, 2005

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION

This historical and architectural assessment of a 64-acre parcel in the City of Oxnard, California, was prepared for the Village at Oxnard, LLC (Figures 1 – 4). The property is currently the location of a diverse array of commercial, industrial, and residential development known historically as Wagon Wheel Junction (Figures 3a - 4). The applicant proposes to demolish the property's existing improvements and replace them with a mixed use development comprising both residential and commercial buildings (Figure 5). This study will address the following: 1) document the historic context and physical appearance of the property and its individual buildings, 2) assess the potential historic, architectural, and cultural significance of the structures, 3) assess the buildings eligibility for inclusion on the City, State, and Federal lists of landmarks and historical resources, 4) determine the integrity of the property and its individual components, and 5) assess the direct and indirect impacts of the proposed project on the property. The study follows the guidelines for historic Cultural Resource Studies set forth in the County of Ventura Cultural Heritage Resource Ordinance, as well as State and Federal guidelines pertaining to the assessment of impacts to historic resources. The senior author of the report was Pamela Post, Ph. D. Unless otherwise indicated in the captions, the photographs used in this report were taken in March of 2005.

2.0 PROJECT DESCRIPTION

The applicant proposes to demolish the existing improvements and replace them with a new, mixed-use project. The development would encompass the demolition of the existing improvements at Wagon Wheel Junction and their replacement by a mixed-use project comprising residential, commercial, and retail space (see Figure 5).

2.1 Lead Agency and APE Definition

The Lead Agency for the purposes of this study is the City of Oxnard. For the purposes of this study the Area of Potential Effect (APE) for direct impacts is comprised of the project area delineated on Figure 3.

3.0 SITE DESCRIPTION

The APE has been known as Wagon Wheel Junction since the construction of a motel and restaurant complex in the late 1940s. Located on an approximately 64-acre parcel at the intersection of US 101 and Oxnard Boulevard, Wagon Wheel Junction is sited on a triangular-shaped parcel on the east bank of the Santa Clara River (see Figures 3, 3a and 4). The APE is defined on its north side by U.S. Highway 101, on the south side by the Union Pacific Railroad right-of-way (ROW), on the east side by Oxnard Boulevard, and on the west side by the Santa Clara River (Figure 3). The APE is developed with a range of commercial, industrial, retail, and residential buildings, including warehouses, offices, stores, and a trailer park. The majority of the buildings were constructed in an approximately 25-year period between circa-1947 and the mid-1970s. A network of streets arranged on a grid divides the APE into a series of blocks. To the east of the APE is the Esplanade, a retail complex. North of US Highway 101 a mixed use development is presently under construction. South of the railroad's ROW the area is primarily residential. The following section of the report will describe the individual resources located within the APE.

3.1 Building Description and History

Building at 2700 Buckaroo Avenue (Eternal Life Christian Center)

Building History

An original building permit could not be located for this one-story commercial building. The earliest surviving permit for this building was issued in June of 1964 for a sewer repair. However, the building was clearly in place by circa-1958 as it is depicted on an aerial photograph of that date. The building's initial tenant was Venox Department Store, who occupied the site from circa-1958 until circa-1968. Between 1969 and the early 1980s the building's lessees included a furniture store and other retail outlets. From 1983 through the present it has been location of a number of churches.

Building Description

This building is a reductive interpretation of postwar Modernism (Figure 6). Designed as a single-story, tilt-up concrete building with a truss roof, its footprint is L-shaped in configuration. The building's concrete walls are supported by evenly spaced pilasters. The west elevation, which is the building's street facade, faces toward Buckaroo Avenue. Concrete pilasters divide the elevation into segmented sections. A flat-roofed canopy runs almost the entire length of the street façade. Supported by metal beams that project from the façade, the cantilevered canopy is embellished with metal flag poles. At the center of the façade a taller, flat-roofed canopy, supported by metal poles, shelters the main entrance. Access to the building is provided by metal and glass doors that are flanked on either side by fixed metal frame windows. Secondary entrances are placed at the north and south ends of the elevation. The north and south elevations of the building are linear in configuration.

Building at 2730 Buckaroo Avenue

Building History

An original building permit could not be located for this one-story commercial building. The building, which is depicted on a circa-1956 aerial photograph of Wagon Wheel Junction, was built sometime after 1956. The earliest permit was issued in 1970 for an alteration, however, based on the building's architectural style it was most likely constructed sometime in the early to mid-1960s. Over the years the building has been occupied by a number of tenants, including Cal State Construction Company (1970); A&W Educational (1972); Red Carpet Reality (1975) and Hydro-Aire Industries (1982). The building's current tenant is Channel Islands Pool Supply.

Building Description

This is a one-story wood frame building sheathed in stucco and capped by a steeply-pitched shed roof (Figure 7). The stucco walls are embellished with vertical boards. With its cantilevered roof and emphasis on asymmetry the building is a reductive example of postwar Modernism. The L-shaped entrance façade (north elevation) is recessed under the roof's extended eaves. A set of double metal and glass doors is placed in the recessed section of the facade. The doors are flanked on the east by a triple fixed pane and louvered window. Another window, of the same type, is set at the east end of the elevation. On the west elevation the building's cantilevered roof is supported by metal poles. The south elevation is linear in configuration. The fenestration of its projecting element is comprised of a triple fixed pane and louvered window. The east elevation is linear in configuration with a small shed projecting from the north end of the elevation. The building does not appear to have undergone significant alterations since its construction.

Building at 2731 Buckaroo Avenue (Skating Rink)

Building History

The roller rink was built in 1956 for Martin V. Smith. The architect/engineer for the building was E. V. Mikles. Opening in 1956 as "Roller Gardens," the rink was in operation until it was closed in the late 1990s (at the time of its closure the rink was named the "Pacific View Skate Center"). No significant exterior alterations appear to have been made since the construction of the building in 1956. The building has been vacant since its closure in the late 1990s.

Building Description

With its textured cinderblock facade, asymmetrically designed canopies and planer wall surfaces, the roller rink is an example of reductive postwar Modernism (Figure 8). The roller rink is a one-story wood frame and concrete block building is constructed on a slab foundation, and capped by a rolled composition roof. The building has a rectangular footprint, with projecting elements on its street façade (east elevation). Its main wing is capped by a low-pitched front gable roof. A one-story wing runs the length of the street façade. Its most notable element is an oversized patterned cinderblock projection. Set at an angle to the façade the projection serves as an oversized "sign" for the roller rink. The projection is flanked on its south by a metal canopy that shelters the main entrance doors and ticket counter, whose prominence is accentuated by the roof's oversized facia. The tower is flanked on its north side by a one-story wing whose projecting eave embellished with an oversized fascia board. Its fenestration is comprised of metal sliders and a sealed doorway. The north and south elevations are linear in configuration. Their fenestration is comprised of several metal frame windows. The rear (west) elevation is linear in configuration with no doors or windows. With the exception of the sealing of several doorways the building does not appear to have undergone any significant alterations since its construction.

Building at 2735 - 2739 Buckaroo Avenue (Office Building)

Building History

No construction permit could be found for this building. The first documented permit, issued in 1970, was for minor alterations to the existing building. Judging by its references to the Western style architectural theme that characterized Wagon Wheel Junction's earliest phase of development (circa 1947-1960), the two-story wood frame building was most likely built sometime after 1956 as it is not depicted on a circa-1956 aerial photograph. In 1970 the building was leased by Homeowners Loan & Consumer Discount. Two years later, in 1972, the building was leased by National Advertised Products. During the period between the mid-1970s and the late-1990s the building was rented or leased by a variety of commercial businesses. During this time the building underwent a number of alterations, including the replacement of its original fenestration with aluminum sliders (Permit issued April 27, 1972). The building has been vacant for a number of years.

Building Description

This two-story wood frame building is capped by a moderately pitched front gable roof covered in composition shingles (Figure 9). The street façade (east elevation, facing Buckaroo Avenue) has a three-part false front façade with a two-story porch supported by wood posts. The porch is capped by a shed roof, and its balcony is embellished with a balustrade style railing. The fenestration is comprised of pairs of metal sliding windows surrounded by plank style surrounds. Doors are either wood paneled or flush wood type. On the south elevation an exterior staircase provides access to the second floor. A one-story wing, with cinderblock walls and a shed roof, projects from the rear of the building (west elevation). The false-front's bracketed cornice, two story porch, and board-and-batten style siding reference design motifs associated with the frontier architecture of the American West. In 1972 the original wood framed windows were replaced with metal sliders.

CACTUS AVENUE

Building at Corner of 304 Cactus Avenue and 2705 Saddle Avenue

Building History

This is a one-story concrete block building constructed in the early to mid-1950s for the Helms Bakery Company (the original building permit was not on file at the City of Oxnard). In 1960 a small addition, housing a sales room and a storage room, was constructed off of the building's northeast corner (Permit #19971). The contractor for this project was Fisher and Wilde. For a number of years the building was occupied by the Orowheat Bakery. By 1970 a portion of the building housed the Discount Carpet Warehouse. In 1973 part of the building was leased by Scott Marine. Three years later in 1976, a 1,900 square foot mezzanine was inserted into the building for Hippo

Waterbeds. A number of businesses have occupied the property since the mid-1970s. The building is currently occupied by a furniture store.

Building Description

This is a one-story stucco clad concrete block building capped by a truss roof, partially hidden from view by a solid parapet (Figure 10). The south elevation, which faces Cactus Avenue, is one of the building's two street facades. At the east end of the elevation a rolling metal door protects a series of fixed metal frame windows. This door is flanked on its west by a pair of multi-light wood frame windows and a bay door. At the west end of the elevation a wood panel and glass door provides access to the interior. The east elevation, which faces Saddle Avenue, is the building's other street façade; it is U-shaped in configuration with slightly projecting wings at either end of the elevation. Fenestration is comprised of multi-pane metal windows. Doors are primarily glazed single paned metal frame type. A wood panel bay door, placed near the north end of the elevation, provides access to the interior. At the north end of the elevation a small cinderblock wing, constructed in 1960, projects from the corner of the building.

Building at 306 Cactus Avenue

Building History

This building was constructed in 1955 for Martin Smith, by County Contractors, a local contracting company (County of Ventura Permit #1340, February 23, 1955). The 1,740 square-foot one-story building was intended to house a warehouse and office. A number of tenants, including Apache Trailer and Camping Center (late 1960s and early 1970s) have occupied the building since its construction. It is currently occupied by Westex Co. Industrial X-Ray & N.D.T.

Building Description

This is a one-story concrete building capped by a steeply pitched shed roof covered in rolled asphalt (Figure 11). Several design features of the building, including its canted roof and glazed clerestory and plate glass windows, identify it as an example of a reductive interpretation of Second Generation Modernism. The extended eave of the building's north elevation shelters the primary street façade (facing towards Saddle Avenue). Large plate glass windows, set into wood frames, are flanked on the east by a glazed metal frame door. The east elevation faces towards Saddle Avenue. Its exterior wall is comprised of large louvered and fixed plate glass windows, capped by a glazed clerestory. The south end of the elevation is comprised of a stucco wall covered with a wood grill embellished with a random pattern of wood blocks. The remaining elevations, with their fixed and louvered windows and stucco walls, are more reductive in design than the building's street elevations.

Building at 311 Cactus Avenue

Building History

The rear wing of this one-story wood frame building was constructed in 1956 for owner, Martin Smith (County of Ventura Permit #4255). The original tenant was A. Lagerstrom who opened a store on the premises in February of 1956. In 1959, County Construction Company built an addition to the building's street façade (County of Ventura Permit #13911, February 14, 1959). The new wing's plate glass windows, grooved wood siding, and clerestory windows are a reductive interpretation of post-war Modernism. The building is currently vacant. Its last tenant was Yam Lawn Mower Repair.

Building Description

The building is L-shaped in configuration. Built in 1956, its stucco clad rear wing is capped by a shed roof (Figure 12). The rear wing's east elevation has three bays, flanked by doors and windows (all are covered by plywood sheets). Built in 1959, the front wing faces towards Cactus Avenue. The wing is capped by a moderately-pitched front gable roof whose overhanging eaves are supported by exposed beams. The walls of the addition are sheathed in grooved plywood sheeting (like the west elevation, this side of the building may have had multi-light metal frame windows). The street façade was originally comprised of a wall of fixed windows flanked on either side by a set of double doors (the elevation's glazed clerestory has been covered with plywood sheets). The fixed windows once wrapped around the building's southeast corner. Later alterations have covered over some of these windows. The west elevation of the building is linear in configuration, its planarity broken by a series of six-light metal framed casement windows.

Building at 314-320 Cactus Avenue

Building History

Designed by Randell Engineering for owner, Martin Smith, the 20,000 square-foot warehouse and office building was constructed in 1967 to accommodate a warehouse and office. The building appears to have undergone no significant alterations since its construction. Its original lessee was G. J. Aigner. Currently, the building is leased by York Business Records and Storage.

Building Description

This is a one-story tilt-up Modernist style concrete building with a flat roof (Figure 13). A cantilevered concrete parapet that runs the length of the street façade hides the roof's mechanical equipment from view. The street façade (north elevation) is divided into shallow bays by concrete pilasters. Its walls are sheathed in stone aggregate. A set of glass and metal doors, set at the east end of the street façade, functions as the building's main entrance. The other elevations are linear in configuration. Fenestration is comprised of louvered and multi-light metal casement windows. Two sets of bay doors are located on the south elevation.

Building at 329 Cactus Avenue

Building History

The original building permit was not on file at the City of Oxnard. The first recorded permit for 329 Cactus Avenue is a certificate of occupancy issued on January 28, 1969 for a warehouse and distribution center for Redi-Spud of America. This suggests that the building was constructed in circa-1969. The warehouse is contiguous with a large commercial building that fronts on Buckaroo Avenue (see the description of 2700 Buckaroo Avenue for the early history of this building). Over the years the building has been occupied by a number of tenants. Currently, the building is vacant.

Building Description

This is a one-story flat-roofed concrete block building (Figure 14). Its west elevation is contiguous with the east elevation of 2700 Buckaroo Avenue. The north end of the south elevation is contiguous with 333 Cactus Avenue. The street façade (south elevation) of the building has two bay doors that face onto Buckaroo Avenue. The east elevation has no doors or windows.

Building at 330 Cactus Avenue

Building History

The first extant permit for this property is for the installation of a sign for the then tenant Coast Wholesale Electric (Permit #15793, January 29, 1964). The building, which is depicted on a circa-1956 aerial photograph, was probably built sometime between 1950 and 1956.

Building Description

This is a one-story, flat-roofed concrete block building with a rectangular footprint (Figure 15). A random pattern of slightly projecting concrete blocks embellish the street façade (north elevation), as well as the north end of the west elevation. At the west end of the street façade (north elevation) a set of double doors, capped by a transom window, provide access to the interior. The doors are flanked on the east by two sets of triple windows. On the west and south elevations narrow pilasters divide the exterior walls into shallow bays. Fenestration on these two elevations is comprised of eight-light metal framed windows. A centrally-placed bay door is located on the south elevation.

Building at 331 Cactus Avenue

Building History

The building at 331Cactus Avenue, which is not depicted on a circa-1956 aerial photograph was probably constructed sometime after 1956 (the original permit was not on file at the City of Oxnard) as part of a large commercial building that fronted on Buckaroo Avenue (see the description of 2700 Buckaroo Avenue for the early history of this building). The first recorded permit for 331 Cactus Avenue is permit issued on September 16, 1966 for the installation of partitions for the United States Post Office Department (Permit #17191). Since that time the building has been occupied by a number of tenants. Currently, the building is vacant.

Building Description

The concrete building is rectangular in configuration with a flat roof surrounded by a solid parapet (Figure 16). Its east elevation is contiguous with the adjoining building at 329 Cactus Avenue and its west elevation is contiguous with a building at 2700 Buckaroo Avenue. The south elevation, which faces Cactus Avenue, functions as the building's street façade. It is linear in configuration with a centrally placed door that provides access to the interior.

Building at 333 and 333 ½ Cactus Avenue

Building History

No original building permit could be located for this structure. However, an official house number was issued for the building on October 11, 1956 for a store and office building, suggesting that the building was constructed in 1956. Constructed by owner, Martin V. Smith, the building housed two leaseholders. By 1960 the east half of the building was occupied by the offices of Farmers and Commercial Bank. In 1978 Charter Bank of London was the occupant (Chartered Bank had purchased Farmers and Commercial Bank in 1978). The west half of the building (333 ½ Cactus Avenue) was leased by a number of tenants over the years, including Rameco-Aire in the early 1970s.

Building Description

The building at 333 Cactus Avenue is a flat-roofed, concrete block, stucco-clad building divided into two units (Figure 17). The south elevation (street façade) is divided into shallow bays by concrete pilasters. At the west end of the elevation a metal and glass door, flanked by fixed, metal frame windows, provides access to the unit at 333 ½ Cactus Avenue. The door is flanked on the east by an aluminum framed bay door capped by a roofed canopy. Another bay door, flanked by an entrance door, and located at the east end of the elevation, provides access to the unit at 333 Cactus Avenue. The remaining elevations of the building are linear in configuration without windows or doors.

Building at 350 Cactus Avenue (currently Goodwill Industries)

Building History

Initially, the site was used as a parking lot (Permit dated January 30, 1964). In 1971, a tilt-slab industrial building, designed by Ebbe Videriksen, A.I.A. was built on the site. The building was constructed to house the offices, warehouse, and production facilities for G. J. Aigner Company.

Building Description

The building is a one-story concrete block structure with a flat roof (Figure 18). Its primary elevation, which faces Cactus Avenue, is embellished with an asymmetrical arrangement of pilasters. Fenestration is comprised of plate glass windows.

UNDERPASS STREET

Building at 2601 Underpass Street

Building History

An original permit for this building is not on file at the City of Oxnard. The oldest permit for the building was issued in 1974 for an addition to an existing building (Lessee: Lee's Two-Way Radio, Designer: W. M. Lyes Construction). The original wing was probably built sometime in the early to mid 1960s. The building is depicted on a circa-1968 aerial photograph as a two-bay structure. An addition made in 1974 added an additional bay to the southeast end of the building.

Building Description

Rectangular in configuration, this one-story building has cinderblock walls covered in stucco, and a flat roof (Figure 19). Its fenestration is comprised of metal frame windows. The storefront, which faces Underpass Street, has fixed plate glass windows and a glazed door set in metal frames. An angled canopy shelters the entrance. The entrance is flanked on the north by two bays fitted with roll-up style metal doors.

Building at 2603-2609 Underpass Road, 2613-2645 Saddle Avenue and 342-350 Winchester Avenue

Building History

The east end of the warehouse building was constructed in two phases between 1963 and 1964. In 1963 a permit was issued to Martin V. Smith for the construction of a 26,630 square-foot warehouse. Randall Engineering, the firm for several of Smith's projects at Wagon Wheel Junction was the contractor (Permit was issued on August 6, 1963). Less than a year later, in April of 1964, an addition was made to the building for its tenant Venco Equipment Company. In October of 1964, a 90-foot by 409-foot, 27,630 square-foot addition was made to the building (the architect for the addition was Jack Harmer and the contractor was Greyhold Construction Company. Over the last 41 years numerous modifications have been made to the interior and exterior of the buildings. These changes include alterations to the fenestration, cladding, bay doors and interior partitions.

Building Description

The warehouse is a one-story, tilt-up concrete building capped by a flat roof (Figures 20 - 21). The building extends northwest from Underpass Road to Winchester Avenue (the street addresses for the west end of the building are on Winchester Avenue). Its north elevation functions as the building's primary elevation. It is divided into shallow bays by concrete block pilasters. Each of the elevation's units is comprised of one or more bay doors flanked by multi-light metal frame windows on the first and second floors. The windows are comprised of a centrally placed jalousie surrounded by fixed panes. Each unit has at least one flush panel door capped by a metal canopy that provides access to the interior. Most of the units have undergone alterations since the construction of the building in 1963-64. These include the re-cladding of units in tile, replacement of the original fenestration and doors. Several of the units have had their bay doors removed and replaced by glazed storefronts.

WAGON WHEEL ROAD

2555 Wagon Wheel Road (formerly 100 Underpass Road) (This property fronts on Cross Street)

Building History

A permit was issued to L. R. Howard, on January 22, 1958, to move a 24-foot by 30-foot wood frame building onto Lot 14 of the Underpass Industrial Subdivision. After being moved to its new location the building was set on a concrete block foundation. The building initially housed office; since then it has housed a variety of businesses. Today it is occupied by Alternative Action Program.

Building Description

This one-story wood frame building is set on raised concrete block foundation and is capped by a moderately-pitched side gable roof (Figure 22). The exterior is sheathed in a combination of horizontal clapboards and board-and-batten style siding. Fenestration is comprised metal framed slider windows.

Building at 2575 Wagon Wheel Road (formerly 130 Underpass Road)

Building History

No permit could be located for this building (It should be noted that a permit was issued in 1953 for a 6,000 square-foot office building at 2575 Wagon Wheel Road; however, it clearly cannot be for the existing building which is considerably smaller in size). A heating permit was issued for 130 Cross Street on July 17, 1964, which suggests that the building was constructed in 1964 (it is likely that the building at 130 Cross Street is for the existing building). The building is currently occupied by Alternative Action Program. Several alterations have been made to the building since its construction. These include the replacement of the original front door and the insertion of a decorative door surround around the front door.

Building Description

A one-story masonry brick building, located at the intersection of Cross Street and Wagon Wheel Road (Figure 23). It is capped by a moderately-pitched rock-covered cross gable roof. Horizontal wood cladding covers the east and west elevation's gable ends. The north elevation, facing Cross Avenue, functions as the building's street façade. Its fenestration is primarily comprised of triple-light metal frame casement windows (these windows consist of a fixed light, flanked on either side by one-light casements). The north elevation, which fronts on Cross Street, functions as the building's street façade. A centrally-placed door, surrounded by a decorative surround, is flanked on either side by metal frame windows set in moderately deep reveals. Narrow brick planters flank the entry. A secondary entrance is placed the building's south elevation. Several features of the building, including its moderately-pitched gable roof, its emphasis on horizontality, and windows set flush to the wall plane, are characteristic of the California Ranch Style.

Building at 2603 Wagon Wheel Road

Building History

A plumbing permit, issued in 1978 is the oldest permit on file at the City of Oxnard for this building. However, the building was already in place by circa-1970, as it is depicted on an aerial photograph taken at that time. The interior and exterior of the building have undergone the following series of modifications and alterations since 1980:

- Removal of four feet of the street façade's parapet in 1980.
- Addition of a mansard roof in 1983.
- Addition of a pole sign in 1983.

Building Description

This is a one-story cinderblock building with a rectangular footprint (Figure 24). A mansard roof and parapet hide the flat roof from view. The fenestration is comprised of fixed and sliding metal frame windows. The main entrance to the building is located at the northeast corner of the building.

Building at 2605 Wagon Wheel Road

Building History

This one-story building was constructed in circa-1972. During the years between 1972 and 1977 the building was leased by Casa de Motor Homes (1972-1975), Genes's Mobile Homes (1975-1976), and Royal Trailer Sales (1977-1978). In 1978 the building was leased by Tri-County Furniture; in 1978 by Pioneer Books and in 1983 by Buena Roofing Services. Today it is occupied by a cellular phone sales company.

Building Description

This one-story, stucco-clad, wood frame building with its intersecting roof planes, glazed street front and extended eaves is an example of reductive Modernism (Figure 25). Its roof is comprised of two intersecting shed-roofed elements. The east elevation, which faces Wagon Wheel Road, functions as the building's street façade. The elevation is comprised of a series of fixed windows set in wood frames. At the north end of the building an elevated sign comprised of a series of wood posts attached to the roof's extended eave, supports a rectangular sign. The primary entrance to the store is located at the northeast corner of the building. The fenestration of the remaining elevations is comprised of metal frame windows.

Building at 2611 Wagon Wheel Road

Building History

The earliest permit for the building at 2611 Wagon Wheel Road was a certificate of occupancy permit for Drake Craft Boats, Inc., a marine engineering and drafting company, issued in September of 1968. It is likely that the building was constructed in the same year that the certificate of occupancy was issued. The exterior of the building was drastically remodeled in the early 1980s when it, along with the adjoining restaurant at 2615 Wagon Wheel Road, were combined and converted into a large nightclub and restaurant. The revamped exterior featured metal shed roofs and stuccoed walls. Most of the building's original fenestration was removed as part of the remodeling project. Today, the building continues to operate as a nightclub and restaurant.

Building Description

As remodeled in the 1980s the building is essentially rectangular in configuration. The complex roof is comprised of gable and shed-roofed elements (Figure 26). A parapet that runs along hides the main roof from view. The street façade (east elevation) is embellished with a series of metal shed roofs. At the south end of the street façade a set of double doors provides access to the interior.

2615 Wagon Wheel Road

Building History

Constructed in 1963 by Martin V. Smith, the original wing of this building initially was leased to County Appliances. A year later, in 1964, a wing was added to the building for the Carousal Restaurant. In 1969, the building was enlarged and remodeled. A more extensive exterior remodeling occurred in the early 1980s when 2611 Wagon Wheel Road and 2615 Wagon Wheel Road were combined and remodeled into a restaurant and nightclub. Today, the building continues to operate as a nightclub and restaurant.

Building Description

A one-story concrete block building with a flat roof surrounded by a parapet (see Figure 26). In an early 1980s in a remodeling scheme, the street façade and northeast corner of the building were capped be metal shed roofs and most of the building's original fenestration was removed. The west (rear) and south elevations have preserved some of the original fenestration, which featured multi-light metal windows.

Building at 2635-2639 Wagon Wheel Road (originally 694 Wagon Wheel Road) and 2640 Saddle Avenue

Building History

Constructed in 1955, at a cost of $15,000 dollars, the wood frame and masonry building at 2635-2639 Wagon Wheel Road was built for L. R. Howard. The east end of the building, later remodeled into a restaurant space, is presently the headquarters for American Legion Post 48. Action Teen Counseling occupies the west end of the building.

Building Description

The east end of this building is a one-story wood frame and masonry wing, capped by a flat roof (Figures 27 – 29). The building's brick veneered street façade (east elevation) is capped by an over-scaled cornice. The main entrance at the east end of the elevation is flanked on either side by arched windows. A rectangular window, placed in an arched reveal, flanks the north side of the main entrance. Another wing of the building extends toward Saddle Avenue. Like the west end of the building, it is capped by a moderately-pitched, side gable roof. The fenestration of this wing consists of fixed metal frame windows. At the west end of the wing the original street façade (whose lower half is covered by a shed-roofed wing) is a stucco-clad stepped false front. The shed-roofed wing, facing toward Saddle Avenue, is sheathed in square-cinder blocks laid in a grid pattern. Its fenestration consists of two metal frame windows flanking a centrally-placed glass and metal door.

Building at 2705 Wagon Wheel Road

Building History

A gas station was erected on the site in 1953 for Shell Oil Company (Permit # 8197, June 4, 1957). Seven years later, in 1964 this station was replaced by a one-story, pre-fabricated gas station (City of Oxnard permit, #15151, May 12, 1964). Three months later, in August, a neon sign was installed (City of Oxnard permit, #15455, August 13, 1964). The building is no longer serving as gas station.

Building Description

This one-story prefabricated metal building in capped by a front gable roof (Figure 30). Its walls consist of metal panels with fixed, single pane, windows. The façade is embellished with fieldstone veneer.

Buildings at 2751-2755 Wagon Wheel Road

Building History

The existing motel complex comprises elements of two motels, the Junction Motel (later called the Western Motel) and the Wagon Wheel Motel. Built sometime before 1945, the 16-unit Junction Motel was originally located in a triangular-shaped piece of land between Highway 1 and U.S. 101. In 1948 the construction of the freeway junction required the relocation of the motel slightly to the southwest of its original location (at the time the motel was owned by A. E. Hanson). The relocated Junction Motel featured duplex units separated by covered carports. When Martin V. Smith acquired the property in 1946 he initiated construction on the Wagon Wheel Motel and restaurant, as well as making substantial changes to the Junction Motel (Figure 30). Smith used three surplus military barracks from Port Hueneme Navel Base to construct the u-shaped 45-unit Wagon Wheel Motel. Several features of the buildings' original architectural scheme, including their one-over-one wood sash windows and horizontal wood siding were preserved by Smith. It is not clear as whether the buildings' shed roofs were an original feature of the barracks, or represent an alteration made by Smith after he moved the buildings to Wagon Wheel Junction. The motel's references to the western style theme chosen for the motel/restaurant complex were confined to the eave's scalloped bargeboard and the wagon wheels used to embellish facade. A triangular-shaped lawn, surrounded by a paved driveway, filled the area between the motel's three wings. The lawn was surrounded by a paved drive that linked the motel with the adjacent restaurant and frontage road. In front of the motel and restaurant a series of planter beds, landscaped with succulents and cacti, delineated the boundary between Smith's property and the outer highway.

Between 1949 and the early 1960s the motel complex underwent a series of alterations and modifications that expanded both the Junction Motel and the Wagon Wheel Motel. The first significant alterations were made in 1951 when a freestanding twelve-unit two-story wing was added to the hotel. 1952 a 1,800 square-foot addition was made to the Wagon Wheel Motel. In 1953-1954 three wings of the Junction Motel were moved (The relocation was necessitated by the reconfiguration of the outer road (now Wagon Wheel Road). The units were relocated to the adjacent Wagon Wheel Motel according to permits issued in 1953 and 1954 permits for the relocation of a six-unit motel and a five-unit apartment building. A year later in 1955, permits were issued for the construction of a swimming pool, flanked on three sides detached one-story wings were constructed at the streetside of the triangular lawn facing Wagon Wheel Road. Further alterations were made in 1955 when a freestanding building housing an employee apartment was constructed behind the Wagon Wheel Motel. In 1962, a new lobby and two-story manager's apartment were built off of the east elevation o f the adjacent Wagon Wheel Motel. Other alterations were made to the motel complex after 1952; these included the replacement of the most of the motel's original wood sash windows with metal frame sliders and the replacement of the some of the original wood panel doors with new doors. Sometime in the mid-to-late 1950s a large over-scaled neon wagon wheel sign was placed just southeast of the Junction Motel. The programmatic sign depicted a gigantic wagon wheel placed on top of a tower. The sign was emblazoned with the words "Wagon Wheel." In 1981 fire damage to the roof of one building was repaired. Twenty years later, in 2001, part of the complex was re-roofed.

Building Description

Junction Motel (later the Western Motel)

The former Junction Motel is comprised of a freestanding wing and a row of five duplex units and a single triplex arranged around a triangularly shaped lawn (Figure 31). The duplex units are wood frame buildings capped by moderately-pitched side gable roofs covered in composition shingles (Figure 32). The exterior walls are sheathed in stucco with horizontal wood siding on the lower third of the primary elevation (west elevation) (Figure 33). Fenestration is comprised of metal frame sliders. Panel doors placed at either end of the primary elevation provide access to the units. A shed roof supported by angular brackets shelter the doors. Raised brick planter beds flank the doorways. The triplex, which is located at the north end of the row of units, is embellished with a brick fireplace. Another one-story motel wing is located northwest of the freestanding duplexes (see Figure 31). It is a one-story wood frame building capped by moderately-pitched side gable roofs covered in composition shingles (Figures 34 – 35). The west elevation functions as the building's primary façade. Its fenestration is comprised of metal frame sliders that flank panel doors that provide access to the individual units. Small gable-roofed roofs, supported by angled braces shelter each of the doors. Originally these units were comprised of small units flanked by covered carports. Sometime in the mid-1950s to early 1960s the carports were enclosed to form additional living space. It is likely that this was the same time that the motel's original horizontal siding was covered with stucco, the original wood sash windows were replaced with metal sliders, and the small porches were altered. A large pole sign, placed on a brick plinth, is located on the triangular lawn near the entrance on Wagon Wheel Road (Figure 36).

Wagon Wheel Motel

The Wagon Wheel Motel is comprised of eight freestanding buildings, a pool, and a lobby (attached to the adjacent Wagon Wheel Restaurant) (see Figure 31). The main motel complex is comprised of a two concentric rings of u-shaped detached or semi-detached wings that face toward Wagon Wheel Junction. The motel, with the exception of a two-story wing at the northeast corner of the complex, and a second floor manager's apartment located behind the restaurant, is one-story in height.

An inner ring of three detached wood frame buildings surrounds the motel's pool (Figure 37 and see Figure 31). Their exterior walls are sheathed in board-and-batten style siding set on a brick veneered plinth (Figures 38 – 39). Chimneys embellish several of the elevations. Moderately-pitched side or front gable roofs cap each of the buildings (Figure 40). Exposed rafters support the roofs' extended eaves (Figure 41 - 42). Fenestration is comprised of metal frame sliders set flush with the wall plane. A concrete deck surrounds the pool (Figure 43). Several existing elements of these three buildings, including most of the doors and the metal frame windows, most likely, represent post-1955 alterations to the buildings.

The outer ring is comprised of five detached or semi-detached wings housing guestrooms and a lobby wing. A two-story rectangular cinderblock and wood frame building built in 1952 forms the east end of the outer ring of buildings (Figure 44 and see Figure 31). It is covered by a low-pitched gable roof clad in composition shingles. The roof is capped by two square vents capped by diminutive pyramidal roofs and a neon sign spelling "Motel" (Figure 45). At the center of the wing a porte-cochere extends through the building to a rear parking area (Figure 46). The first floor of the building is exposed concrete block and the second floor is sheathed in a combination of horizontal wood siding and stucco. A cantilevered second floor porch runs the length of the north and south elevations' second floor (see Figures 44 and 45). An x-style railing runs the length of both porches. The street façade's porch is flanked on the east by a slight projection capped by a front gable roof. It most notable feature is a brick chimney that extends above the eave line (see Figure 45). The fenestration is primarily comprised of multi-light metal casements. On the north and south elevations the windows are flanked by panel doors that provide access to the individual units. An open staircase placed at the west end of elevation provides access to the second floor. The building's western style embellishments are relegated to a scalloped barge board placed at the base of the second floor. The east and west elevations are linear in configuration with multi-light metal frame windows (Figure 47).

A one-story, wood frame wing, capped by a shed roof, projects from the rear (south) elevation of the two-story wing (built in 1947-1948) (see Figure 31). The building is clad in horizontal wood siding (Figure 48). The extended eave of the primary façade (west elevation) is supported by wood posts and forms the wing's porch. Its scalloped bargeboard is one of the building's few decorative embellishments. The wing's fenestration is comprised of metal sliders that flank panel doors providing access to the individual units. A smaller detached one-story wing forms the south end of the u-shaped wing (built in 1947-1948). Its design mimics that of the adjacent wing (Figure 49). The smaller wing is flanked on its northwest by a long one-story wing that also mimics the design of the other two wings (Figure 50). At its north end the wing is linked by to the restaurant/lobby building by a two-story porte-cochere (Figure 51). Built in 1962, the porte-cochere's second floor houses the manager's apartment. Capped by a pyramidal roof covered in wood shingles, the apartment's exterior is sheathed in board-and-batten style siding (Figure 52). Fenestration is comprised of metal sliders set flush with the wall plane. A small freestanding building is placed behind the u-shaped wing. This wood frame building with metal frame windows was built sometime between mid-1950s or early 1960s (it is possible that this building was relocated in 1953-1954 to its current location from the adjacent Junction Motel).

Wagon Wheel Restaurant and Motel Lobby

The restaurant is a v-shaped, one-story wood frame building wood with a small second floor wing at its east end (see Figure 31). It is capped by a complex side gable roof covered in wood shingles. Shed roof wings projecting off of the rear elevation. Its original wing was constructed in 1947-1948. The north elevation forms the restaurant's street elevation (Figures 53 - 54). Its shed-roof is embellished with dovecote style vents capped by diminutive pyramidal and gable roofs. Part of the roof is obscured by air conditioning vents. At the east end of the elevation a small tower, capped by a pyramidal roof, projects above the ridgeline (the tower houses the manager's apartment). A shed-roofed projection with fixed glazing, runs along part of the elevation (this was originally an open porch supported by wood posts; in circa-1962 it was transformed into interior space) (Figure 55). The former porch is flanked on its northwest side by a used-brick fireplace built in the early 1960s. The fireplace, which is embellished with a neon sign that reads "Breakfast, Lunch, Dinner," is flanked on its north side by shed-roofed wing capped by an extended eave (see Figure 54). Supported by wood posts the extended eave forms a shallow porch that shelters a secondary entrance to the restaurant.

The north elevation's eave line is embellished with a scalloped bargeboard. The east end of the enclosed porch is flanked by another brick chimney. The chimney is flanked by a canvas awning that shelters the main entrance to the restaurant. At the east end of the elevation a wing capped by a front gable roof projects from the main block of the restaurant. Its most notable element is its angled gable roof and large plate glass windows and clerestory (see Figures 53 – 54). The large windows are flanked on their east by a glazed door that provides access to the motel lobby (Figure 56). The windows are flanked on their east side by a corner fireplace made of used brick At its south end the office wing is linked to the adjoining wing by a porte-cochere capped by a second floor. Its fenestration is comprised of metal sliders. The primary elevation (north elevation) is embellished with several decorative embellishments including wagon wheels, scalloped barge boards, horse shoes, and branding irons.

Clad in board-and-batten style siding, the south, west, and east elevations of the restaurant are more utilitarian in design. The west elevation, with its wood frame windows, scalloped barge board, brick planter and porch is the most elaborate of the building's secondary elevations (Figure 57). The south and east elevations are primarily clad in board and batten style siding. Fenestration is confined to a number of small metal frame windows. At the west end of the south elevation (rear of the building), a concrete ramp leads to a panel door that provides access to the restaurant's kitchen (Figure 58).

Signage at Wagon Wheel Motel/Restaurant Complex (including former Junction Motel)

Several neon signs are places on or near the restaurant. They include the following:

- A large pole sign placed adjacent to the north elevation. Supported by three metal poles the sign is embellished with depictions of a buckboard and team of horses capped by the words "Wagon Wheel Restaurant" in Western style script (this sign was installed in circa-1955) (Figure 59).
- A small vacancy/no vacancy sign placed on a wood pole capped by a metal lantern is located near the northeast corner of the restaurant.
- A neon sign spelling out "Restaurant" in Western style script caps the enclosed porch (see Figure 54).
- A small neon sign with the words "Breakfast, Lunch, Dinner," is placed on the exterior of the fireplace at the west end of the restaurant's north elevation (see Figure 54).
- A wood sign embellished with the words "Wagon Wheel" is placed at the east complex (at the location of the former Junction Motel) (see Figure 34).
- A metal and neon sign spelling "Motel" is located on the roof of the motel's two-story wing (see Figure 46).

Building at 2765 Wagon Wheel Road (*El Ranchito* Restaurant)

Building History

A site map of Wagon Wheel published in 1949 depicts a garage at the location of the restaurant (Cook, 1949: 13) (see Figure XX). Like several other buildings constructed at Wagon Wheel Junction in the immediate post-World War II period, the garage appears to have been a surplus World War II military building that was moved onto the property by Martin V. Smith. In 1952, a few years after its construction, the garage was remodeled to serve as a restaurant named "*El Ranchito*" (City of Oxnard

Permit File for 2765 Wagon Wheel Junction). Like the adjacent Wagon Wheel Restaurant, the building had a Western themed exterior, with board-and-batten siding and shingled roofs, and "used" brick veneer. Other embellishments included the use of wagon wheels (some transformed into window frames) and branding irons that furthered the building's western theme. Smith operated the restaurant until 1953, in that year he leased both the *El Ranchito* and Wagon Wheel restaurants to Ralph Smith and William Long. Over the years the restaurant underwent a number of modifications, including additions to the east, west, and south elevations. Under various names, including most recently, *Hacienda del Oro*, the restaurant operated until its closure in 2003.

Building Description

This one-story wood frame and cinderblock building has an irregular footprint (see Figure 3a). A complex roof, made up of a number of shed roof elements, caps the building. Its exterior is covered in a variety of cladding types including clapboard, board-and-batten, and brick veneer. Window types include fixed wood and metal frame windows. The north side of the building, which faces towards Wagon Wheel Road functions as the restaurant's primary elevation. This elevation is L-shaped in configuration with a 2/3 length recessed porch, supported by wood posts, running along the east end of the façade's projecting wing (Figure 59). A shed roof, covered in c-shaped terra cotta tiles, runs the length of the façade. A set of recessed double doors, set at the east end of the elevation, is the main entrance to the restaurant. The doors were flanked by two pairs of oversized windows covered with decorative wood grills. The west end of the elevation is clad in brick veneer, board-and-batten style siding and horizontal clapboard. Its fenestration is comprised of two windows covered in decorative wood grills. At the west end of elevation a brick fireplace projects above the eaveline. At the east end of the elevation a recessed wing, clad in board-and-batten style siding, projects from the building. The wing is sheltered by a tile-clad shed roof, capped with a parapet. A brick planter runs the length of the wing. The wing's fenestration is comprised of a single window covered by a decorative wood grill. The remaining elevations are utilitarian in design and lack the western style embellishments of the street façade (Figures 60 – 61).

Building at 2801 Wagon Wheel Road (Wagon Wheel Bowling Alley)

Building History

A permit to build a 32-lane bowling alley was issued on May 22, 1953. Designed by the Beverly Hills architect, A. Froehlich, the building, with its planer walls surfaces, over-scaled wing wall and plate glass windows is an example of the type of reductive Modernism that enjoyed great popularity between circa-1950 and 1965. Known as Hoberg's after its proprietor, Ed Hoberg, the bowling alley included a restaurant and banquet room. The building has continued to operate as a bowling alley since its construction in 1953.

Building Description

The bowling alley is a one-story concrete block building with a rectangular footprint (see Figure 3a). The building is comprised of the following four elements: 1) A one-story wing, capped by a shed roof, that forms the street elevation; 2) A rectangular wing, capped by an arched truss roof that forms the east elevation (this element of the building houses the bowling lanes); 3). A flat-roofed wing that forms the west elevation; and 4) A small shed-roofed wing that runs along the east end of the south elevation. Single and multi-light metal frame windows are the dominant window types. Functional and utilitarian in design, the building is an example of the type of industrial/commercial buildings built in great numbers in the period between circa-1950 and the mid-1960s. The street façade (north elevation), as well as the north end of the east elevation, with their plate glass windows, brick veneer, and planer walls employ minimal references to the postwar Modernist style (Figures 62 – 63). The secondary elevations, with their flat, planar walls, are broken only by several doors and a series of single and multi-light metal frame windows. A neon pole sign in the shape of a bowling pin and ball is located at the west end of the parking lot figure 64). Over the last 52 years, the building has undergone a number of alterations and modifications. The most significant of these were the following:

- Removal of the original pole sign and its replacement with the current sign (In 1980 the replacement sign was lowered 20 feet).
- The interior underwent unspecified alterations after a fire in 1976.
- The wing wall was modified and its neon signage was removed (date unknown).
- The street façade was modified when a "false front" was added to the shed roof (sometime after circa-1960).

2821 Wagon Wheel Road

Building History

This one-story Type III prefabricated building was erected in 1966 for Martin V. Smith (City of Oxnard permit #17119, August 16, 1966). The building served as the office for an auto agency. A year later in 1967 a Type IV wing was added to the building (City of Oxnard permit, August 23, 1967). Since that type the building has undergone a number of minor alterations to its interior.

Building Description

This is one-story prefabricated metal building capped by a front gable roof. Its street façade (north elevation) is comprised of large fixed windows (see figure 63). The exterior walls are a combination of fixed glazing and metal siding.

2851 Wagon Wheel

Site History

Opened as the Western Trailer Park, the trailer park built by J & R Construction Company in 1953. The original park also encompassed a small building, located on the street frontage on Wagon Wheel Road. This building housed an office grocery store. It was originally comprised of a rectangular parcel that opened onto Wagon Wheel Road, and a small wood frame building along the Wagon Wheel Road Street frontage. Sometime in the early 1960s the park was expanded to encompass a parcel located at the intersection of Buckaroo Avenue and Winchester Avenue. After its enlargement the park contained 169 stalls.

Site Description

The L-shaped trailer park is developed with 169 stalls. Most of the trailers are single-wide models set on narrow lots. A small wood frame building sheathed in stucco and capped by a gable roof is located on the Wagon Wheel Road side of the park. Three small building housing laundry facilities and restroom are also located on the property.

WINCHESTER AVENUE

Building at 300 Winchester Avenue

Building History

No building permit could be located for this building. The first recorded permit was in 1965 for a non-illuminated sign for the then tenant, Farmers Insurance. It is most likely that the office building was constructed in circa-1965 for Farmers Insurance. By 1973 the building was being leased by Davis L. Nichols and Alfred R Yarrow for "Rentals-A-Plenty." Since that time the building has been occupied by a number of commercial and retail businesses. Today it is leased by Debra's Alternative Images.

Building Description

The building is an example of the type of reductive modernist that characterized much of the speculative development in post-World War II period. It is a one-story wood frame building sheathed in a combination of plywood siding and stucco, with a moderately pitched front gable roof covered in composition shingles (Figure 65). The roof's extended eaves are supported by exposed rafter tails. At the northwest corner of the building a vertical arrangement of metal frame windows provides light to the interior. The remaining is comprised of aluminum frame sliders on the south and east elevations and metal casements and fixed pane windows on the south and east elevations.

Building at 301-367 Winchester Avenue and 2640 and 2644 Buckaroo Avenue

Building History

This one-story concrete building was constructed as a warehouse in 1956. The primary tenant of the new building was the 7-Up Company. Other tenants included Western Sheet Metal and Lagerstrom Electrical. Subsequent tenants included Farmer Brothers Coffee-Restaurant Service and Workrite Uniforms.

Building Description

Built as a multi-tenant industrial building and warehouse this is a one-story concrete building with a rectangular footprint (see Figure 3a). The north and south elevations are divided into shallow bays by concrete pilasters (Figures 66 – 67). Bay doors, covered by rolling metal doors, provide access to the interior. The doors are flanked by flush panel doors, capped by shed-roofed metal canopies. A solid parapet capped by a wood facia board hides the flat roof from view. On the south elevation a decorative metal canopy, placed west of the elevation's center point, shelters an entrance to the one of the building's units. The elevation that fronts onto Buckaroo Avenue is more complex than the other sides of the building. It is comprised of a recessed entry capped by a canted metal canopy supported by square piers (Figure 68). A number of alterations were made to the building after its construction; these included an addition completed in 1964 (the addition appears to have been made to the west end of the building) and alterations to the doors and fenestration.

Building at 310 Winchester Avenue

Building History

A one-story pre-fabricated building was in place by 1966 (A permit was issued for an addition to the building in 1966 (Permit #16649). In 1976 the building was condemned and subsequently demolished. The building was subsequently replaced by the existing modular building.

Building Description

The building is a single-wide structure clad in corrugated metal siding (Figure 69). Windows are aluminum frame sliders. Doors are primarily paneled metal types. The structure's low-pitched gable roof has extended eaves, supported by exposed rafters. An addition, sheathed in board-and-batten style siding, is located on the structure's northeast elevation.

Building at 334 Winchester Avenue

Building History

The original wing of the building was built in circa-1957 (a house number was issued for the lot in 1957; presumably the year that the building was constructed). A rear wing, housing a wash house, was added to the building in 1958. Subsequent alterations include construction of a shed-roofed addition off of the rear elevation (south elevation) and the partial enclosure of the original bay door on the street façade (north elevation) (while a number of permits are present in the street file, there are no permits specifically referring to these alterations). In 1997 a 1,000 gallon underground storage tank was installed. The first tenant of the building was a trailer repair shop. Over the years tenants have included an ice cream maker and a metal finishing shop.

Building Description

A one-story cinderblock and wood frame building partially sheathed in stucco and capped by a shed roof. The main wing of the building is wood frame with stucco sheathing. Its fenestration is double-hung wood sash. The rear wing is concrete block with multi-light metal frame windows. On the street façade (north elevation) the elevation is capped by a solid parapet. Its centrally placed entrance is flanked on the east by two bays with tilt-up wood doors and on the west by a freight bay (Figure 70).

Building at 338 Winchester Avenue

Building History

An original building permit for 338 Winchester Avenue is not on file at the City of Oxnard. The earliest permit, for rewiring, dates to 1963. The building, which is not depicted on a circa-1956 aerial photograph of Wagon Wheel Junction, was most likely built or moved onto the property sometime between 1956 and 1960. It is possible, that the building, like several others at Wagon Wheel Junction, was a surplus military building that was moved onto the property by Martin V. Smith. The building originally functioned as the maintenance and machine shop for Smith's properties. Since that time it has been occupied by a variety of businesses, including a photography shop (Pete Winkel, photographer) and printer (Thrifty Printing). Presently, the building is used as pet kennel.

Building Description

This building is a one-story, stucco-sheathed, wood frame building (Figure 71. Its slightly pitched shed roof is covered in rolled composition roofing. A parapet runs the length of the north, south, and east elevations. Fenestration is comprised primarily of wood sash windows. While the building is primarily utilitarian in design, several features of the building, including its parapet and canopy, reference post-World War II Modernist themes. Fenestration on the street façade (north elevation) is comprised of two one-over-one wood sash, flanked on the west by a smaller sash window. A wood canopy extends along most of the north and east elevations. The primary entrance is provided by a flush panel door located on the east elevation. To the south of the door is a metal canopy, supported by poles. The south and west elevations have no doors or windows. Like other buildings on the property, the building was most likely a war surplus structure moved onto the property after World War II.

The east elevation (street façade) faces toward Winchester Avenue. A centrally-placed metal-roofed canopy, supported by wood posts, shelters a flush panel front door. The front door is flanked by a wood frame window and a bay covered by a roll-up metal door. One of the elevation's window openings has been sealed. The north elevation is linear in configuration. Its fenestration is comprised of a pair of one-over-one wood sash windows and a smaller one-over-two wood sash window. The west elevation is linear in configuration and has neither windows nor doors. The south elevation is linear in configuration and has neither windows nor doors. The building has undergone the following modifications and alterations since it was built or moved onto property in circa-1958:

- A window or door on the east elevation was removed and sealed over with stucco.
- Addition of a bay to the building's east elevation (subsequently replaced with a door).
- A bay door on the south elevation was sealed.
- A metal canopy support by wood posts was added to the east elevation.
- Addition of a metal canopy to the east elevation.
- Addition of a wood canopy to the east and north elevations.

Building at 342-350 Winchester Avenue (also see 2603-2609 Underpass Road and 2611-2641 Saddle

A permit was granted in 1963 for the construction of 90-foot by 375 square-foot concrete-walled warehouse. The twenty-foot tall building encompassed 26,000 square-feet of spaced divided into separate units. The contractor for the building was Randell Engineering Company. For many years a large part of the building was leased by the Jordanos Company. Other lessees included Western Tile Company and the maintenance headquarters for Martin V. Smith and Associates.

Building Description

The building is one section of a concrete warehouse building that extends from the intersection of Buckaroo and Winchester Avenues east to Underpass Road (see Figure 3a). The concrete-walled building has a rectangular footprint. Its street façade (north elevation) is divided into bays by shallow buttresses (Figures 72 – 73). Bay doors, covered by roll-up doors are flanked by flush panel metal doors and multi-light metal windows (Figure 74). The second floor fenestration is also comprised of multi-light metal windows. The west elevation is divided into four bays by pilasters. A large bay covered by a metal tambour door is placed near the south end of the elevation (Figure 75). The rear elevation is divided into shallow bays by pilasters. Since the building's construction in 1963 the facades of the individual units have undergone significant alterations including the following:

- Removal of several of the original bay doors.
- Alterations to the original fenestration.
- Re-cladding the street facades of several units in tile.
- Addition of doors and windows to the street facades of several units.

4.0 HISTORICAL CONTEXT

4.1 History of Oxnard and Wagon Wheel Junction (1769 – 1945)

The first chronicles to describe the San Gabriel Valley, including the area that would become Wagon Wheel Junction, were accounts written by members of the Gaspar de Portala expedition as it traveled along the California Coast in 1769. Diaries by expedition members noted that the area was populated by the Chumash, a Native American group that inhabited the coastal and inland area between present-day Malibu and San Luis Obispo County. Thirteen years after the Portola expedition, the Spanish established Mission San Buenaventura, near the mouth of the Ventura River to Christianize the Chumash. Over the succeeding decades the indigenous settlements were gradually abandoned and their occupants drawn into the mission system. Spanish control of California passed to Mexico in 1822. Within twelve years of independence Mexico had secularized the Franciscan-run missions, including Mission San Buenaventura.

The Mexican government soon began granting ex-mission lands, as well as other tracts to Mexican citizens in California. One of these grants, the 448,000-acre *Rancho El Rio de Santa Clara y La Colonia*, was granted, in 1837, to Valentine Cota, Leonadro Gonzales, Rafael Gonzalez, Salvador Valenzuela, Jose Maria Valenzuela, Vincente Pico, Rafael Valdez, and Vincente Feliz, with the intention that the grantees establish a settlement on the lower reaches of the Santa Clara River (the ranch later became known as *La Colonia*). Only one of the eight grantees, Rafael Gonzales, settled the land grant that encompassed the future location of Wagon Wheel Junction (Maulhardt 1999: 36). Beyond the construction of an adobe house Gonzales made few improvements to his rancho, which was used primarily for stock raising. In 1848, twelve, years after the creation of the *La Colonia* rancho, California passed to the United States as a result of the Mexican-American War. The rancho remained intact until 1864 when an approximately 32,000 acre portion of it was sold to Thomas Scott. Scott, who intended to establish an oil industry in Ventura County, promptly sold some of his landholdings to newly-arrived farmers and ranchers, many of whom had recently immigrated from Ireland and Germany. Among these was Christian Borchard, a German, who soon began to purchase land in Ventura County, shortly after his arrival, in 1867. Subsequently, Borchard purchased land that would include the area later developed as Wagon Wheel Junction. By the early twentieth century a slaughterhouse, owned by the Hobson Brothers, was located in or near Borchard's farmland (it should be noted that there is no clear evidence that the slaughterhouse was located on the Borchard property, which remained in the family until the 1940s) (*Oxnard Press Courier*, November 6, 1965; Aziz, 2004: 12).

In the succeeding decades the agricultural industry grew in importance, particularly after the construction, in 1897, of one of the country's largest sugar beet factories by a consortium, headed by the Oxnard Brothers. A town, located southeast of the project area, and named in honor of the brothers, was founded shortly after. Development of the city of Oxnard increased rapidly when the Southern Pacific Railroad's coastal line was re-directed, in the early 1900s, to run through the city. Further out of town the new line crossed the Santa Clara River via a steel and concrete rail bridge located just southwest of the project area (the railroad right-of-way defines the south boundary of the project area). However, the project area, which was located in a flood plain several miles west of Oxnard, continued to remain commercially undeveloped until the 1940s.

By the 1920s, the road linking western Ventura County with Los Angeles had been paved and a new two-lane bridge spanning the Santa Clara River had been built for the use of automobiles. In June of 1929 a two-lane roadway linking Santa Monica to Oxnard was completed (The acquisition of a right-of-way through Malibu required a 17-year legal battle with the Rundge family who owned much of the Malibu coastline through their acquisition of a portion of an old Mexican land grant). Named the Roosevelt Highway, (VEN-60-B) (later changed to Pacific Coast Highway), the road formed a junction near the east bank of the Santa Clara River (later named Wagon Wheel Junction). The construction of the bridge, improvements to the highway, and the proximity of a junction linking two of the county's most important roads, made the Wagon Wheel Junction an attractive location for roadside services. By the mid-1940s a few roadside businesses, including, a service station, café, and small motel, were located at the crossroads of the two highways. The hostelry, known as the Junction Motel, was sited along the triangular-shaped area created by the intersection of the two highways (Cook 1949: 14). Much of the residual acreage, however, remained in the possession of the Borchard family, who continued to the farm their land. In the immediate years following the end of World War II expansion in the area began to increase, much of driven by an increasingly mobile population and expanding improvements to the highway system. These developements provided the impetus for Martin V. Smith, a local businessman, to buy portions of the surrounding farmland, transforming it into an enclave of commercial and industrial buildings.

4.2 Martin V. "Bud" Smith and the Development of Wagon Wheel Junction (1945-1966)

Martin V. Smith was born in Sioux Falls, South Dakota on October 18, 1916. His father, president of Sioux Falls National Bank, moved his family to California in 1919 when Smith was three. In 1925 the family relocated to Beverly Hills where they continued to prosper until 1929 when the death of Smith's father, along with the stock market crash, reduced their circumstances (Triem, 1999: 5). At the age of 13 Smith began to embark on a series of jobs, including delivering papers and several years later, after dropping out of high school, the repairing of jukeboxes (Triem 1999: 5). Smith acquired his first property in 1941, at the age of 25, when the owner of a small hamburger stand on Oxnard Boulevard (then part of State Route 101) turned over his business to Smith when he could not pay him for a jukebox Smith had repaired (*The Star*, November 20, 2001, n. p.). At first, Smith struggled to make a go of the eatery, but it soon began to flourish following the opening of the base at Port Hueneme, in 1942. In that same year Smith married Martha Beckstrom, an aspiring actress in Hollywood. Shortly after Smith enlisted in the Army Air Corps where he served in the Pacific as a bombing reconnaissance photographer until the war ended in 1945. During his time in the service the restaurant was run by his wife, sister, and mother (Triem 1999: 5).

After returning to civilian life Smith concentrated on the expansion of his Oxnard restaurant (now renamed the Colonial House) and the purchasing of additional real estate holdings in Ventura County. One of his first acquisitions, in 1946, was 50 acres of farmland acquired from the Borchard family in the area that would be later known as Wagon Wheel Junction. In that same year, Smith, working with Fred Humphrey, the subsequent lessee-operator of what would later be the Wagon Wheel Motel, began construction on a 45-unit western themed motel and restaurant. Both motel and restaurant were remodeled from surplus barrack buildings purchased by Smith from the nearby navel base at Port Hueneme. As developed by Smith the motel formed an irregular u-shaped complex of three detached one-story buildings, flanked on the left by a restaurant. The original building permit for the restaurant does not list an architect; however, Roy Beatty, a set designer from Hollywood, may have had a role in its design and possibly, the motel, as well (Azizi 2004: 11). While the purported discovery of branding irons on the property possibly provided inspiration for the motel/restaurant's western themed architecture, it is more likely that Smith chose this motif because of the historic relationship of farming and ranching to Ventura County, as well as the "Wild West's iconic status in American culture, particularly between the late1940s and the late 1950s.

Like a number of roadside businesses, built between 1945 and circa-1960, Smith's development was designed around a western architectural theme which conflated elements of the popular California Ranch residential style with motifs that evoked the Old West of the nineteenth century. "Wild West" attractions were especially popular in California during this period, which saw the western, in both radio and motion pictures, reach its height of popularity (Within a few years westerns would also dominate the emerging media of television broadcasting). Perhaps the most venerable of these western themed attractions was Knotts Berry Farm, which opened a re-created "ghost town," in 1940. Subsequently, an expanded Knotts Berry Farm would go on to become the genesis for Southern California's first theme park (Phoenix 2001: 51-63). Other regional western-themed parks included Corriganville, in Simi Valley and the desert town of Calico. Opened by western film star Ray "Crash" Corrigan, in 1937, Corriganville included a western style back lot used initially for filming and than, in 1949, as a theme attraction for the public (Triem 1990: 124). Buildings fashioned around western motifs also proved popular for restaurants, including Kover's Bull, in Sherman Oaks, Silver Saddle, in Downey, and Jack's Bull Pit, in Laguna Beach (Phoenix 2001: 53-55). Like other western themed buildings of the time, Smith's Wagon Wheel development employed exaggerated architectural motifs that drew inspiration from, rather than attempting to re-create the authentic regional vernacular architecture of the late nineteenth century (the development also included a driving range and nursery (neither were designed with a western theme).

Shortly after the completion of Smith's motel the state began work on the first phase of a long-range project to transform State Route 101 (SR 101) and the Pacific Coast Highway into freeways. The construction in the postwar period of an expanded 101 Freeway in Ventura was part of an extensive program of road improvements undertaken by the State of California. Freeways were a relatively new transportation concept intended to funnel traffic away from surface streets and roads into a network of restricted access thoroughfares that could efficiently move traffic without the slow-downs caused by stoplights and cross traffic. Freeways made it easier for the type of suburban expansion that characterized post-World War II development in California and were a critical factor in the postwar economic boom (it should be noted that the state's freeway system were part of larger federal initiative to expand and modernize the interstate highway system). As built by the state, in 1949, the Wagon Wheel segment of SR 101 was comprised of a divided highway, flanked on either side by an undivided frontage road, or outer highway. The outer highway, which had limited entrance to the freeway, provided access to businesses that bordered the freeway. The project required the partial acquisition of 13 properties and 21 leaseholds (*California Highways and Public Works*, July-August, 1949:14). Construction of the freeway also required the relocation of six units of the Junction Motel (then owned by Martin Hansen who had purchased the property in 1946, it was later sold to Smith, in 1949) and the Alternate Inn Café, owned by C. A. Markel. Road improvements began in March of 1948 and were completed seven months later, in September. The project was considered such a success that it was the subject of an article in *California Highways and Public Works*, the journal of the California Department of Roads. The article included a letter from Smith discussing the positive impact of the new freeway on the success of his Wagon Wheel Junction development (*California Highways and Public Works* July-August, 1949:15).

Shortly after the completion of the freeway expansion Smith undertook a $60,000 improvement to the restaurant, including adding more western styled embellishments (the Wagon Wheel Motel and the nearby Junction Motel used a more reductive interpretation of the western motif). A 1949 photograph of the complex depicts the improvements to Smith's property, including the 46-unit Wagon Wheel Motel, the 18-unit Junction Motel, the Wagon Wheel Restaurant, the Wagon Wheel Nursery, and Gay's Golf Driving Range (*California Highways and Public Works* July-August, 1949:15-16). At that time the restaurant was a v-shaped building capped by a hipped roof covered in wood shingles. The motel and restaurant were soon a success and Smith embarked on a series of additional improvements to the complex, including the enlargement of the Wagon Wheel Motel and the Wagon Wheel Restaurant, as well as the remodeling of a garage into what subsequently would be *El Ranchito* Restaurant. In 1953, Smith leased both the Wagon Wheel and *El Ranchito* Restaurants to Ralph Smith (no relation) and Colonel William Long (*Oxnard Press Courier*, December 1, 1953). Two years later, in 1955, Smith leased the motel to the Humphrey Brothers. The acquisition, development, and eventual leasing of his developed properties, would become an established practice for Smith who, unlike other developers, rarely sold his real estate holdings. By leasing his properties it gave Smith time to devote to his other business interests, which included a subdivision near Ojai, several business/industrial parks in Oxnard, and the development of Channel Islands Harbor.

Throughout the period between mid-1950s and the mid-1960s Smith increasingly escalated the acquisition of his real estate holdings. At the same time he continued to expand Wagon Wheel Junction. He purchased additional parcels in the Wagon Wheel area, developing a commercial/industrial park and a mobile home park (circa-1954) on the acreage behind the hotel and restaurant complex. A grid of streets, with western-themed names, such as Buckaroo, Cactus and Spur, were laid out in the tract. During this period a number of office, industrial, warehouse, and entertainment venues were constructed, including, among others, a bowling alley (1953), a skating rink (1956), a warehouse building (its first wing completed in 1955), and a bottling plant for the Seven-Up Company (1955). With the exception of the street names and the use of old wagon wheels for mailbox supports, the buildings did not employ the western motif used in the motel/restaurant complex. Instead, most of the buildings were functional and utilitarian in design, and rarely referenced any particular architectural style. In a few cases the buildings, most particularly the skating rink and former store at 306 Cactus Avenue, were inspired, though in a very reductive fashion, by post-World War II Second Generation Modernism. In another notable exception, the Tradewinds Restaurant, located on Wagon Wheel Road, employed an exotic motif. Built by Smith, in 1963, the restaurant featured a South Seas Islands theme in which the over-scaled "hut-like" building, with its steeply pitched metal roof, was surrounded by exotic tropical landscaping complete with full size palms, tiki gods, waterfalls, and ponds (the restaurant was demolished in the 1980s). The Tradewinds Restaurant was the last significant addition made to the complex of motels and restaurants built by Smith at Wagon Wheel Junction. While the addition of commercial/industrial buildings continued, subsequent buildings, with relatively few exceptions, were smaller in scale than those built between circa-1955 and 1965.

Embolden by the success of his first real estate venture at Wagon Wheel Junction, Smith embarked on a more than 40-year long career as a real estate developer. Along with his business partners, Smith formed Martin V. Smith Associates, a property management and development company in 1959 and within a few years, he had become the areas preeminent developer (Triem, 1999: 5). Over the next four decades years Smith's company would be responsible for many of the signature developments in Oxnard. Some of his successful projects include the following: the development of hotels and restaurants at Channel Islands Harbor; the building of Carriage Square (early 1960s); the creation of the Commercial and Farmers Bank, in 1965; the building of the Oxnard Financial Plaza (mid-to-late 1960s); and the construction of the Esplanade Shopping Center (mid-to-late 1960s). His portfolio of real estate holding eventually grew to over 200 properties, in an area stretching between Calabasas and Santa Maria (*Los Angeles Times*, California Section, November 20, 2001. pg. 1). A successful businessman, Smith was a philanthropist who directed the majority of his donations on local community. Beginning in the mid-1960s Smith and his wife made significant contributions to local non-profits, including a $500,000 dollar donation to the Oxnard Boys and Girls Club in 1999, a $156,600 dollar donation Saint John's hospital foundation, in 1977, and in 2000, a five million dollar gift to the newly established California State University, Channel Islands).

4.3 Later History of Wagon Wheel Junction (1966-2001)

By the late-1960s Wagon Wheel Junction began to slowly decline as a commercial/retail and tourist hub for Oxnard. A number of factors, including improvements to U.S. 101, the development of upscale hotels and motels at the nearby Channel Islands Harbor, and the construction of the Esplanade Mall on an adjacent parcel, played a role in its decline. Improvements to the freeway, beginning with a reconfiguration of the connectors in 1955 and continuing with extensive improvement made in 1968, had reduced the number of on and off ramps, as well as partially elevating the freeway. These changes made it much more difficult for both travelers and residents to access Wagon Wheel Junction. The increasing number of industrial businesses at Wagon Wheel Junction may also have played a role in reducing the attractiveness of Wagon Wheel's motels and restaurants. By the late 1960s almost all development at Wagon Wheel Junction had ceased (the last large building was constructed on Cactus Avenue in 1967). Superceded by new office/industrial parks, with more modern facilities and easier access to the freeway, Wagon Wheel Junction had long since lost its attraction to business people, visitors and shoppers. In the early 1980s the parcel located west of the trailer park was redeveloped as a multi-tenant retail center (In the 1950s, the parcel had been the location of a truck farm and, later, in the mid-1960s, the site of a miniature golf course). The retail center, with its relatively poor access to the freeway, proved not to be a success. Eventually, its anchor store, Zody's, was transformed into a skating rink. Despite being one of Smith's less lucrative operations, Smith, in 1992, announced his attempt to revitalize the property through a 175 million dollar redevelopment project. The upscale mixed-use project was to include a condominium complex, a high-rise office building, an entertainment center, and three shopping centers (*Star Free Press*, August 25, 1992, A-6). Ultimately, Smith's scheme never came to fruition; perhaps due to a recession in the early 1990s that reduced demand for new residential and commercial developments (it is also possible that Smith's declining health played a role in the failure to realize the project). Over the next nine years few improvements were made to Wagon Wheel Junction. Its dated commercial properties lacking many of the amenities required by prospective tenants, it became a less and less desirable location for industrial and commercial businesses. By the mid-1990s many of its buildings were increasingly occupied by marginal businesses, private social service organizations, and discount stores.

Smith continued to pursue his various financial and commercial interests until 1995 when disbanded Martin Smith and Associates and sold the bulk of his real estate portfolio to Tiger Real Estate Fund (Smith's retirement was most likely due to his ill-health. He had been diagnosed with Parkinson's disease in the mid-1990s), (*Oxnard Star*, December 30, 1995. n.p.). While most of his properties, including those at Channel Islands Harbor, as well as the Oxnard Financial Plaza, were a part of the sale, it did not include Wagon Wheel Junction, which Smith still planned to redevelop. For the next six years Smith continued to pursue his scheme for Wagon Wheel, however, by the time of his death, in 2001, the redevelopment plan he was promoting still had never gotten further then the drawing board. At the time of his death, Wagon Wheel continued to remain, as it had for the last 30 years, an enclave of deteriorating buildings that had long ceased to be economically viable. In the larger scheme of things, however, the scope of Smith's business vision and its impact on the economy of Oxnard and Ventura County was monumental and would make Smith the most influential single developer in 20th century Ventura County.

4.4 Wagon Wheel Junction 2001-2005

Shortly after the death of Smith his family sold Wagon Wheel Junction, its new owners proposing to redevelop the property with a mix of retail and residential development. Planned improvements to the 101 Freeway, which began in the early 2000s, would improve circulation and access to Wagon Wheel Junction, the redevelopment of the nearby Esplanade shopping center, and the construction of an expansive mixed-used development on the north side of the freeway had increased the desirability of Wagon Wheel Junction for redevelopment. Today, the property is the focus of a proposed mixed-use project that would include housing, retail, and business space.

5.0 EVALUATION AND ANALYSIS

5.1 Evaluation of Historical Resources

Most of the buildings at Wagon Wheel Junction were constructed between 1947 and circa-1965. The property's period of significance (1947-1955) spans an important time in the history of Oxnard and Ventura County when improvements to the regional transportation system led to the rapid suburban and urban growth in Oxnard and Ventura County. The methodology for determining whether the property meets the eligibility requirements for listing as a Ventura County Landmark, or Site of Merit (the criteria used by the City of Oxnard to determine historic significance), Nomination to the California Register of Historic Resources, or the National Register of Historic Places, was based on archival research to determine the historic context of the complex, as well as on-site evaluation of the physical and visual integrity of each building. The National Register criteria, as well as Ventura County's criteria for significance are listed below.

5.2 Integrity Criteria

For a structure, building, or property to be eligible for the National Register of Historic Places it must meet at least one of the five National Register criteria, be (in most cases) at least 50 years of age or older and retain its visual and physical integrity. As defined by the National Register criteria, integrity is:

> *The authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's prehistoric or historic period. A property must resemble its historic appearance as well as retain materials, design features, and construction details dating from its period of significance. It must convey an overall sense of time and place. If a property retains the physical characteristics it possessed in the past then it has the capacity to convey association with historical patterns or persons, architectural or engineering design and technology, or information about a culture or people* (National Register Bulletin 15, 1999).

5.2.1 The Seven Aspects of Integrity

1) Location (the building, structure or feature has not been moved)
2) Design (the combination of elements that create the form, plan, and style of a property)
3) Setting (the physical environment of a property)
4) Materials (the physical elements used at a particular period of time to create the property)
5) Workmanship (the physical evidence of craft used to create the property)
6) Feeling (the property's expression of a particular time and place)
7) Association (the link between a significant event or person and the property)

The relevant aspects of integrity depend upon the National Register criteria applied to the property. For example, a property nominated under Criterion A (events), would be likely to convey its significance primarily through integrity of location, setting, and association. A property nominated solely under Criterion C (architecture) would probably rely upon integrity of design, materials, and workmanship.

5.2.2 Establishing the Resource's Period of Historic Significance

Most of the buildings at Wagon Wheel Junction were constructed between 1947 and circa-1965. The property's period of significance (1947-1955) spans an important time in the history of Oxnard and Ventura County when improvements to the regional transportation system led to the rapid suburban and urban growth in Oxnard and the surrounding county. Located at the junction of two of the county's primary roads, U.S. 101 and the Pacific Coast Highway (State Highway 1), Wagon Wheel Junction was one of the first post-World War II roadside developments in Ventura County whose plan was configured around a freeway. The freeways, with their controlled access points, and divided lanes were designed to move high traffic volumes quickly and efficiently. As built in 1948-49, the 101 Freeway at Wagon Wheel Junction was paralleled on its south side by a frontage road. The frontage road allowed limited access to and from the freeway to the businesses located along parcels that fronted the freeway. Smith's development scheme for Wagon Wheel Junction was designed with this relatively new transportation concept in mind. The initial phase of development comprised the construction or remodeling of two motels and a restaurant, a driving range, and a nursery. Most of the buildings in this first phase were characterized by their western motif.

Smith's selection of a western design for his two motels and restaurant was a not uncommon practice during the 1950s and early 1960s when roadside businesses attempted to draw the attention of busy travelers through the use of exotic architectural schemes, such as Polynesian, Tyrolean, Storybook, and Western motifs. Roadside architecture, such as the restaurant and motel complex at Wagon Wheel Junction, did not attempt to literally reproduce a particular architectural style or theme; instead, it employed exaggerated or stylized motifs intended only to evoke a particular place, time, culture, or theme. The western motif, with its allusions to the formative settlement period in the western United States, was considered an especially appropriate leitmotif in California. The vogue for this scheme was enhanced by the widespread prominence of western themed movies, radio, and television, a theme that was very popular among Americans from the late 1940s through the late 1950s. When first built, the motel and restaurant complex was fairly restrained and schematic in its design. It was not until the mid-1950s, when Smith carried out a series of alterations and modifications to Wagon Wheel Junction, that its western theme was amplified through additional embellishments, including neon signage, faux board-and-batten style siding, and used-brick planters and chimneys.

Beginning in the early 1960s, further alterations were made to the two motels and restaurant. The most notable of these was the addition of more neon signage and the construction of a motel lobby in 1962. The lobby's over-sized front gable roof, with its glazed clerestory, referenced the then popular California Ranch style. The neon signage included a pole sign depicting men driving a buckboard drawn by horses, a small wagon wheel sign located near the restaurant and a large, over-scaled wagon wheel sign located behind the former Junction

Motel (the poles which supported the small neon wagon wheel are still in place, the wagon wheel itself, however, was removed in the 1980s). It was during the early 1960s that a portion of the building's original exterior siding was covered with stucco or replaced with faux board-and-batten style siding. Many of these changes, including the enclosure of the restaurant's open porch, the construction of a larger lobby, the cladding of the exterior walls of the motel and restaurant in stucco and faux board and batten siding, and the removal of most of the original one-over-one wood sash windows with metal framed windows have introduced elements that are out of character with the complex's original design. In the mid-1960s further alterations were undertaken at the Wagon Wheel Motel (by this time the Junction Motel had been absorbed into the larger Wagon Wheel Motel) and the two restaurants. After the mid-1960s Smith's subsequent improvements were relegated to repairs of the existing facility.

Beginning in the mid-1950s Smith embarked on the construction of an industrial/commercial park located to the rear section of his property. These buildings employed standard building materials of the time, primarily concrete block and wood frame (by the late 1950s-early 1960s tilt-up concrete forms also were being used). A few of the buildings referenced a reductive version of Second-Generation Modernism, an architectural style that dominated much of American commercial and industrial design in the period between circa-1945 and circa-1965 (examples of these schematic interpretations of Modernism include the buildings at 2730 Buckaroo Avenue and at 306 Saddle Avenue). For the most part, however, buildings constructed after the mid-1960s made no reference to a particular architectural style; instead, they were built to be utilitarian and functional. Other then the employment of Modernism in a few of the buildings, the only other stylistic motif in the industrial section of the property were minor quotations to Wagon Wheel Junction's initial western-inspired theme. These schematic references were confined primarily to the names of the streets, such as Buckaroo and Cactus, and the use of authentic wagon wheels as supports for mailboxes and signs.

While most of the post-1960 development was devoted to the construction of commercial/industrial space, several more restaurants were added during this period. Located on lots facing toward Highway 1, the line of eateries, described in a contemporary article as a "restaurant row," included an Italian restaurant (name unknown), the Carousel Restaurant, and most notably, The Tradewinds Restaurant (*Ventura County Star Free Press*; Friday, October 25, 1963). Built to resemble an oversized South Sea Islands "hut," its exotic theme was enhanced by the addition of wood tikis, waterfalls, ponds, and a full-sized Chinese junk. Mature palm trees, (some as tall as 150 feet) and other exotic plants, were planted to form a tropical setting for the restaurant (*Ventura County Star Free Press*; Friday, October 25, 1963). By the mid-1960s, however, Wagon Wheel Junction was becoming a less and less lucrative component of Martin Smith's investment portfolio. The completion of The Tradewinds Restaurant, in 1963, represented the last major addition to Wagon Wheel Junction's group of motels and restaurants and by the late 1960s even the building of commercial/industrial space had largely petered out. The gradual decline of Wagon Wheel Junction was due to a number of factors, including the building of newer or more conveniently accessed retail and commercial stores and offices, as well as the improvement, in 1968, of the 101 Freeway. A major contributor to the economic decline of the Wagon Wheel Junction the reconfiguration of the freeway's on and off ramps made Wagon Wheel less visible and certainly less convenient for motorists to access its array of restaurants, motels, and businesses.

5.2.3 Evaluation of Potential Cultural Landscapes

The National Park Service has defined "cultural landscapes" as follows:

> *A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values* (National Park Service 1996: 4)

The following four types of cultural landscapes have been defined by the National Park Service:

- Historic sites: this category includes landscapes important because of their association with a historic event, activity, or person.
- Historic designed landscapes: this category includes landscaped that were purposely designed by a professional or amateur. Examples include parks, gardens and cemeteries.
- Historic vernacular landscapes: landscapes that evolved over time through a specific activity or use. Examples include farms, industrial complexes, and agricultural landscapes.
- Ethnographic landscapes: a landscape that encompasses a variety of natural and man-made features that are defined by their associated people (such as an indigenous tribal group) as heritage resources.

The property may potentially represent two types of historic landscapes; namely, *Historic Sites* (because of its association with Martin V. Smith) and *Historic Vernacular Landscapes* (because the complex could represent a potentially significant example of roadside architecture, and a post World War II commercial/industrial complex). The integrity of the project area and its individual components will be evaluated using the criteria established by the National Park Service for evaluating the integrity of potential historic resources. Special emphasis will be given to the evaluation of character-defining features necessary to convey these two types of historic landscapes.

(this portion of the page left intentionally blank, see Table 1 on following page)

The following table lists the buildings and features that comprise the study area. Buildings that are more than 50 years of age and fall within the period of significance are listed in Table 1:

Table 1

Address	Architectural Style	Function	Construction Date	50 years or more in age	Less than 50 years of age	May be more than 50 years of age
2700 Buckaroo Ave.	Reductive Modernism	Retail store	c. 1950-56			X
2730 Buckaroo Ave.	Reductive Modernism	Retail store	After 1956		X	
2731 Buckaroo Ave.	Reductive Modernism	Roller rink	1956		X	
2737 Buckaroo Ave.	Western theme	Commercial/retail	After 1956		X	
304 Cactus Ave. (also 2705 Saddle Ave.)	Utilitarian	Industrial/warehouse	c. 1950-1956			X
306 Cactus Ave.	Reductive Modernism	Commercial/retail	1955	X		
311 Cactus Ave.	Utilitarian	Commercial/retail	1956		X	
314-320 Cactus Ave.	Modernism	Commercial/industrial	1967		X	
329 Cactus Ave.	Utilitarian	Industrial/warehouse	After 1956		X	
330 Cactus Ave.	Utilitarian	Industrial/warehouse	c. 1950-1956			X
331 Cactus Ave.	Utilitarian	Industrial/warehouse	After 1956		X	
333 &333 ½ Cactus Ave.	Utilitarian	Commercial/industrial	1956		X	
350 Cactus Ave.	Utilitarian	Commercial/industrial	1971		X	
2641 Saddle Rd.	Utilitarian	Commercial/industrial	c. 1950-1956			X
2601 Underpass Rd.	Utilitarian	Commercial/industrial	1960		X	
2603-2609 Underpass Road (see 2613-2645 Saddle Ave. and 342-350 Winchester Ave.	Utilitarian	Commercial/industrial	1963-1964		X	
2555 Wagon Wheel Rd.	Vernacular	Retail	Moved to property in 1938	X		
2575 Wagon Wheel Road	Utilitarian	Commercial/industrial	c. 1964		X	
2603 Wagon Wheel Rd.	Utilitarian	Commercial/industrial	c. 1968		X	
2605 Wagon Wheel Rd.	Utilitarian	Commercial/industrial	c. 1972		X	
2611 Wagon Wheel Rd.	Utilitarian	Commercial/industrial	c. 1968		X	
2615 Wagon Wheel Rd.	Utilitarian	Commercial/industrial	1963		X	
2635-2639 Wagon Wheel Rd.	Utilitarian	Commercial/industrial	c. 1955 with later additions	X		
2705 Wagon Wheel Rd.	Utilitarian	Commercial	1964 with later alterations		X	

Table 1 (continued)						
Address	Architectural Style	Function	Construction Date	50 years or more in age	Less than 50 years of age	May be more than 50 years of age
2751 Wagon Wheel Rd.	Western Theme	Junction and Wagon Wheel Motels	1947-1962	X (in part)		
2755 Wagon Wheel Road	Western Theme	Wagon Wheel Restaurant	1947-1962	X (in part)		
2765 Wagon Wheel Rd.	Western Theme	El Ranchito Restaurant	1947-1953 with later additions	X		
2801 Wagon Wheel Rd.	Reductive Modernism	Wagon Wheel Bowling Alley	1953	X		
2821 Wagon Wheel Rd.	Utilitarian	Commercial	1966		X	
2851 Wagon Wheel Rd.	Utilitarian	Western Trailer Park	1953 with later additions		X	
800-884 Wagon Wheel Rd.	Utilitarian	"Big Box" retail center	1980		X	
300 Winchester Ave.	Reductive Modernism	Commercial/Industrial	c. 1965		X	
301 Winchester Ave. and 2640 and 2644 Saddle Ave.	Utilitarian	Commercial/industrial	1956		X	
310 Winchester Ave.	Utilitarian	Commercial/industrial	c. 1966		X	
334 Winchester Ave.	Utilitarian	Commercial/industrial	c. 1957		X	
338 Winchester Ave.	Utilitarian	Commercial/industrial	c. 1958		X	
342-350 Winchester Ave. (part of a warehouse building that includes 2603-2609 Underpass Rd. and 2611-2641 Saddle Ave.	Utilitarian	Commercial/industrial	1963		X	

The survey identified six buildings and two complexes of buildings (namely the former Junction Motel and the Wagon Wheel Motel) that are more than 50 years-of-age (see Tables 1 and 2). Another four buildings may be 50 years of age (their precise construction date could not be determined). Finally, 24 buildings are less than 50 years-of-age (built after 1955). The buildings that are 50 years-of-age or older are associated with the early stages of the development of the industrial park, the motel/restaurant complex and entertainment venues (see Tables 2 on the following page and Table 3 on page 43).

Table 2 delineates the potential contributors to the two historic themes identified for the project area; Historic Sites and Historic Vernacular Landscapes:

Table 2					
Address	**Architectural Style**	**Construction Date**	**Potential contributor to Historic Site theme (association with Martin V. Smith)**	**Potential contributor to Vernacular Landscape (Themed architecture)**	**Potential contributor to Vernacular Landscape (commercial/industrial park)**
2700 Buckaroo Ave.	Reductive Modernism	c. 1950-56	X		X
304 Cactus Ave. (also 2705 Saddle Ave.)	Utilitarian	c. 1950-1956	X		X
306 Cactus Ave.	Reductive Modernism	1955	X		X
330 Cactus Ave.	Utilitarian	c. 1950-1956	X		X
2640 Saddle Rd.	Utilitarian	c. 1950-1956	X		X
2555 Wagon Wheel Rd.	Vernacular	Moved to property in 1958	X		X
2635-2639 Wagon Wheel Rd.	Utilitarian	c. 1955 with later additions	X		X
2751 Wagon Wheel Rd.	Western theme	1947-1962	X	X	
2755 Wagon Wheel Road	Western theme	1947-1962	X	X	
2765 Wagon Wheel Rd.	Western theme	1947-1953 with later additions	X	X	
2801 Wagon Wheel Rd.	Reductive Modernism	1953	X		X
2851 Wagon Wheel Rd.	N.A.	1953	X		X

As noted in Table 3 (see page 43), all of the properties that are more than 50 years-of-age are potential contributors to the theme of Historic Sites, because of their association with Martin V. Smith and his development of Wagon Wheel Junction in the post-World War II period. Four of properties, once part of the motel/restaurant complex, are associated with the theme of Roadside Architecture. Finally, ten of the properties are associated with the theme of Historic Vernacular Landscapes.

5.3 Application of the Seven Aspects of Integrity to Wagon Wheel Junction

The seven aspects of integrity listed on page 29 will be applied to Wagon Wheel Junction in order to determine if either, the complex as a whole or individual buildings, retain enough integrity to be considered eligible for the National Register of Historic Places.

1) Location (the building, structure or feature has not been moved)

Surviving components of the original complex of buildings at Wagon Wheel Junction have remained in place since their construction between 1947 and 1955. Since the late 1950s several buildings that comprised Smith's original commercial/retail complex have been either demolished or moved. These include the following:

- Gay's Driving Range (demolished)
- The Wagon Wheel Nursery (demolished)
- Junction Motel (a number of the motel buildings were relocated from their original site to become a part of the Wagon Wheel Motel).

The loss or relocation of these elements has somewhat diminished the integrity of the remaining elements of the complex.

2) Design (the combination of elements that create the form, plan, and style of a property)

While Wagon Wheel Junction has continued to develop, its primary period of construction occurred between 1947 and 1965. Each of the buildings that comprised its initial building phase (built during the complex's period of significance, 1947-1955), including the Wagon Wheel Motel, the Wagon Wheel Restaurant, the *El Ranchito* Restaurant, the bowling alley, as well as the commercial/industrial buildings built during Wagon Wheel's period of significance, have undergone alterations and modifications. The most significant modifications include the following:

a) Wagon Wheel Motel (including the former Junction Motel)

The Wagon Wheel Motel was constructed from surplus barrack buildings brought from the Port Hueneme Navel Base in 1947-1948 (the Junction motel pre-dates 1947). Subsequently, the following alterations and modifications have been made to the motel:

- Two wings added to the motel complex (mid-1950s).
- Reconfiguration of the former Junction Motel, and the addition of a new wing to the motel. The original shed-roof porch posts were replaced with angled struts. Brick fireplaces added to several of the units (circa-1953 through late 1950s).
- Pool added to the motel's u-shaped courtyard (1955).
- Construction of an addition at the east end of the Wagon Wheel Restaurant (the addition linked the motel and restaurant (1962).
- New neon signage added (1955).

- Motel wings re-clad in stucco and original double hung sash windows replaced with metal frame windows (circa-1962).
- Many of the original wood panel doors replaced with new doors (after 1965).
- Wagon Wheel Junction neon sign removed (1980s).

b) Wagon Wheel Restaurant

Wagon Wheel Restaurant was constructed in 1947-1948. Subsequently, the following alterations have been made to the building:

- Addition of a wing (housing a lobby) to the east end of the street façade (the wing altered the building's original hipped roof (the lobby was rebuilt after a fire) (1962).
- Brick fireplaces added to the street facade (circa-late 1950s).
- Addition of a wing to the west end of the building (this addition altered reconfigured the original hipped roof into a gable roof) (1956).
- Street façade's porch (north elevation) enclosed with fixed single-light windows (after 1955).
- Restaurant's street façade re-clad in faux board-and-batten siding (this alteration appears to have occurred sometime in the late 1950s-early 1960s).
- Construction of several small shed-roofed wings to the building's rear elevation (1949-1950).

c) *El Ranchito* Restaurant

In circa-1947-1948 a World War II war surplus building was moved onto the site and renovated to function as a garage. In 1952, the garage was remodeled to serve as a restaurant. Since then the restaurant has undergone a series of alterations and modifications, including the following:

- Alterations to the original fenestration.
- Small wings added to the rear of the building.

Summary of Integrity Regarding Additions and Modifications to the Wagon Wheel Motel (including the former Junction Motel), Wagon Wheel Restaurant and *El Ranchito* Restaurant

A number of the alterations to the motel/restaurant complex, including the replacement of fenestration, reconfiguration of the roofs, replacement of doors, windows, and wall cladding, have diminished the ability of the complex to convey its original design scheme. The cumulative effect of these alterations has been to significantly diminish the ability of the motel/restaurant complex to convey its appearance during the resource's period of significance (1947-1955). This is particularly true of the alterations to the street facades of the Wagon Wheel Motel and the Wagon Wheel Restaurant, as well as the addition of new wings to the former Junction Motel.

d) The Building at 2700 Buckaroo Avenue

The building has undergone a number of alterations and modifications since its construction in the mid-1950s. Most notably the linear canopy, which is the elevation's primary architectural feature, was added after Wagon Wheel Junction's period of significance (1947-1955). Therefore, the building does not retain sufficient integrity to convey its original architectural style.

e) The Building at 304 Cactus Avenue

This building has undergone a number of alterations since its construction in 1955. These include the addition of fenestration and the doors to the south and east elevations and the construction of additions off of the north elevation of the building. As a result of these alterations the building can no longer convey its original architectural scheme.

f) The Building at 306 Cactus Avenue

This one story commercial building has retained many of the character-defining features, including its roof, most of its fenestration and original cladding that identify it as an example of a reductive interpretation of Second Generation Modernism. Therefore, the building has retained its integrity of design.

g) The Building at 330 Cactus Avenue

This utilitarian style industrial building has largely retained its original plan and design. Therefore, the building still conveys its original architectural style.

h) The Building at 2555 Wagon Wheel Road

This wood frame vernacular style building was moved onto the property in 1958. Post-1958 alterations include the following: the replacement of several of its wood frame windows with metal sliders; the removal of a chimney; and the re-cladding of a portion of the north and east elevation. Because of these alterations the building no longer maintains its integrity of design.

i) The Building at 2635-2639 Wagon Wheel Road and 2640 Saddle Avenue

This wood frame and masonry utilitarian style industrial/commercial building has undergone an extensive series of alterations and modifications since the construction of the original wing of the building in circa-1955. These include the replacement of much of the original fenestration, the re-cladding of a portion of its exterior in wood sheathing, the remodeling of the building's street façade with brick veneer, the addition of new windows, and doors and the obscuring of the original façade by a later addition. That portion of the building at 2640 Saddle Avenue also has undergone a series of alterations and modifications since its initial date of construction in circa-1955. These changes include alterations to the original fenestration and doors. Because of these alterations the building at 2635-2639 Wagon Wheel Road and 2640 Saddle Avenue no longer maintains its integrity of design.

3) Setting (the physical environment of a property)

The physical environment of the Wagon Wheel Junction has undergone a continuous series of alterations and modifications since Martin Smith completed the first phase of his initial development, in 1948. Over the years, the motel/restaurant complex, as well as the area on either side of it, has been modified by the construction of commercial/industrial buildings. While some of these buildings date to the property's period of significance (1947-1955), most were built between the late 1950s and early 1970s. The building out of the industrial complex has somewhat changed the setting of the motel/restaurant complex, which was originally surrounded by largely undeveloped land. Those industrial/commercial buildings that date to the period of significance have undergone so many alterations and modifications that most of them no longer retain their integrity of design, and cannot convey the appearance of the Wagon Wheel Junction during the property's period of significance (1947-1955). Other alterations, such as the construction of a retail complex west of the trailer park, in 1980, also have diminished the ability of the complex to convey its original appearance. Adjacent properties, such as the former agricultural acreage located north of U.S. 101, have been, or are in the process of being, redeveloped into commercial or residential use. Beginning in the mid-1950s U. S. 101 and State Highway 1 have undergone a series of alterations and modifications that have replaced almost all of the fabric of the original freeway built in 1947-49. Those alterations have significantly affected the visual relationship between Wagon Wheel Junction and the freeway. In addition, the nearby Esplanade Mall, originally developed in the mid-to-late 1960s, was recently demolished and replaced with a new retail center. Because of these alterations the Wagon Wheel Junction can no longer convey the property's period of significance (1947-1955).

4) Materials (the physical elements used at a particular period of time to create the property)

The first phase of the Wagon Wheel Junction comprising two motels, a restaurant, plant nursery, and driving range, was developed between 1947 and 1955. Over the next 50 years numerous alterations were made to the motel/restaurant complex, including the construction of a lobby in 1962, the replacement of most of the motel's windows, alterations to the roof of the Wagon Wheel Restaurant, and the re-cladding of the exterior of the motel in stucco and the restaurant in board-and-batten style siding (most of these changes took place in the early to mid-1960s). These alterations, as well as others already enumerated, have removed or obscured much of the Wagon Wheel Junction's original construction materials. While some of these modifications, particularly those carried out between 1955 and 1960, were in character with the western theme of the original complex, later alterations, such as the motel lobby, (added after 1960) introduced elements (such as large fixed plate glass windows and stucco) that were not in character with the complex's original western motif. The loss of the most prominent neon sign (a giant wagon wheel set on top of a metal framework), also has removed a significant feature of the original development. Because of these alterations and the loss of a considerable amount of character-defining fabric, such as windows and doors, the property's integrity of materials has been diminished.

5) Workmanship (the physical evidence of craft used to create the property)

The buildings and other features of Wagon Wheel Junction have lost significant amounts of character-defining material from their period of significance (1947-1955). These include the one-over-one wood framed sash windows, horizontal wood siding, and the original configuration of the restaurants and motels. Because of the extensive alterations the buildings can no longer effectively convey the construction methods used by the builder. However, it should be noted, that several elements of the Wagon Wheel Junction complex, including two large neon signs and the interior fittings of the restaurant dining room, have survived in a good state of preservation.

6) Feeling (the property's expression of a particular time and place)

Wagon Wheel Junction's integrity of location and setting has been somewhat diminished by alterations to the property that postdate its period of significance (1947-1955). Alterations to the complex's individual buildings have diminished their physical and visual integrity, and their ability to convey the property's period of significance. Therefore, the ability of the Wagon Wheel Junction to effectively communicate its period of significance (1947-1955) has been significantly diminished.

7) Association (the link between a significant event or person and the property)

Wagon Wheel Junction was associated with Martin V. Smith for a period of 55 years. Smith transformed the property from an agricultural field and a small roadside motel into a thriving commercial/industrial development. Wagon Wheel Junction was the first of many large-scale developments built by Smith in Ventura County between 1947 and the late 1990s. These include residential subdivisions, industrial parks, office buildings, restaurants, and retail businesses. Before World War II, Ventura County, with its expansive series of farms, ranches, and small towns, was semi-rural in character. Smith, more than any other single individual, was responsible for the post-World War II transformation of the area into a county characterized by expansive urban/suburban housing tracts and retail/commercial developments. Wagon Wheel Junction is associated with an individual linked to a specific historic theme, namely the post-World War II transformation of Ventura County. Therefore, Wagon Wheel Junction has a direct association with a historically important period in the history of Oxnard and Ventura County. It should be noted, however, that the property's association with Smith has been diminished by subsequent alterations and additions made to the property after its period of significance (1947-1955).

5.4 Assessment of Integrity of the Cultural Landscape

Two cultural landscape themes, Historic Sites and Historic Vernacular Landscapes, were identified for the project area. The Historic Sites theme pertains to the association of the project area with Martin V. Smith, a historically significant individual in the history of Oxnard and Ventura County. The second theme, Historic Vernacular Landscapes, is associated with the growth of Wagon Wheel Junction, one of Oxnard's first post-World War II commercial/retail/industrial developments built around the state's emerging freeway system. In order to communicate Wagon Wheel's association with Martin Smith's development (1947-

1955) the property would have to have maintained sufficient integrity in order to convey its original design, layout and plan. Subsequent additions, built after the property's period of significance, however, have obscured the design, or introduced elements out of character with the original buildings or site. In the case of Wagon Wheel Junction, at least 24 buildings were added to the property after 1955. Buildings and features in the motel/restaurant complex have undergone a series of alterations and modifications that have resulted in the loss of character-defining features, such as fenestration, doors, and roofing. Additions, in the form of new wings, doors, and windows, also have occurred. In most instances, these alterations were not in sympathy with the original architectural scheme. As a result, these subsequent improvements, including the construction of newer buildings, as well as modifications and alterations to almost all of the buildings dating to Wagon Wheel Junction's period of significance, have significantly impacted the ability of the property to convey its association with Martin V. Smith.

Table 3

Address	Architectural Style	Function	Construction Date	50 years or more in age	May be more than 50 years of age	Retains integrity	Does not retain integrity
2700 Buckaroo Ave	Reductive Modernism	Retail store	c. 1950-56		X		
304 Cactus Ave. (also 2705 Saddle Ave.)	Utilitarian	Industrial/warehouse	c. 1950-1956		X		
306 Cactus Ave.	Reductive Modernism	Commercial/retail	1955	X		X	
330 Cactus Ave	Utilitarian	Industrial/warehouse	c. 1950-1956		X		
2640 Saddle Rd	Utilitarian	Commercial/industrial	c. 1950-1956		X		
2535 Wagon Wheel Rd.	Vernacular	Retail	Moved to property in 1958	X			X: moved to property
2635-2639 Wagon Wheel Rd.		Commercial/industrial	c. 1955 with later additions	X			X
2751 Wagon Wheel Rd	Western Theme	Junction and Wagon Wheel Motels	1947-1962	X (in part)			X: alterations postdating period of significance
2751 Wagon Wheel Road	Western Theme	Wagon Wheel Restaurant	1947-1962	X (in part)			X: alterations post-dating period of significance
2765 Wagon Wheel Rd.	Western Theme	El Ranchito Restaurant	1947-1953 with later additions	X		X	
2800 Wagon Wheel Rd.	Reductive Modernism	Wagon Wheel Bowling Alley	1953	X			X: alterations to façade, loss of original signage
2831 Wagon Wheel Rd.	N.A.	Western Trailer Park	1953	X			
Total:				8	5		

5.5 Determination of the Property's Eligibility for Designation as a County of Ventura Cultural Heritage Site, Nomination to the State of California Register of Historical Resources or Eligibility for Nomination to the National Register of Historic Places

The property, which was partially assessed in 1999 as part of a CALTRANS survey of properties along the Right-of-Way for the Santa Clara Bridge Replacement Project, will be reassessed as part of the current study.

5.5.1 Determination of Eligibility for Designation as a County of Ventura Cultural Heritage Site

The County of Ventura uses the following criteria for the definition and designation of Cultural Heritage Sites:

a) Landmarks – Satisfy one of the following criteria:
   (1) It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural, or natural history;
   (2) It is associated with events that have made a significant contribution to the broad patterns of Ventura County or its cities, regional history, or the cultural heritage of California or the United States:
   (3) It is associated with the lives of persons important to Ventura County or its cities, California, or national history;
   (4) It has yielded, or has the potential to yield, information important to the prehistory or history of Ventura County or its cities, California or the nation;
   (5) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;
   (6) Integrity: Establishes the authenticity of the resource's physical identity by evidence of lack of deterioration and significant survival of the characteristics that existed during its period of importance. This shall be evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling and association.

b) Sites of Merit satisfy the following criteria:

   1) Sites of historical, architectural, community, or aesthetic merit which have not been designated as landmarks or points of interest, but which are deserving of special recognition; and

   2) County approved surveyed sites with a National Register status code of 5 or above.

Several elements of the Wagon Wheel Junction property, including the Wagon Wheel Motel, Wagon Wheel Restaurant, *El Ranchito* Restaurant, and the bowling alley, were evaluated by San Buenaventura Research Associates for CALTRANS. San Buenaventura Research Associates determined that while the buildings were associated with three potentially important themes, architecture, important persons, and historical development, Wagon Wheel Junction did not possess sufficient age (more that 50-years-of-age) and were associated with an individual that was still living (Martin V. Smith). Therefore, the surveyed portion of the property was, not at that time, eligible for listing in the National Register of Historic Places (NRHP) (San Buenaventura Research Associates 1999).

Post/Hazeltine Associates has evalaated the property under the following criteria to determine its eligibility for designation as a County Landmark under Criteria 1, 3, and 5.

Criterion 1: *It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural, or natural history;*

Motel/Restaurant Complex at 2751-2755 Wagon Wheel Road:

The former Junction Motel, Wagon Wheel Motel, Wagon Wheel Restaurant, and *El Ranchito* Restaurant, form an interesting example of western-themed roadside architecture. Meant to attract roadside travelers through its exaggerated and stylized architectural motifs, these type of buildings were designed not as a literal re-creations of nineteenth century ranch buildings, but, instead, used selective motifs, such as decorative barge boards, dovecotes, and board-and-batten style siding, as means of attracting the attention of motorists. At the time Smith first developed Wagon Wheel Junction the selection of a western motif was thought to be especially appropriate, given the long history of ranching in Ventura County, as well as the widespread popularity of the American West in popular literature, motion pictures, radio, and television. Variously themed commercial developments enjoyed their greatest popularity between 1945 and the late 1950s during a time when the state's transportation system was undergoing a rapid and profound transformation, replacing roads and trains as the primary mode of travel, with an extensive network of highways and freeways. While freeways allowed for safer and more efficient travel, they reduced the ability of drivers to pull off the road into the commercial strips that formerly lined traffic thoroughfares. As a result of this change, businesses searched for new ways of attracting travelers. For a relatively short time, themed architecture, such as the "Old West" motif of Wagon Wheel Junction, enjoyed some popularity in California. However, by the early 1960s, this type of attraction was though to be somewhat unsophisticated and developers, perhaps realizing the limitations of this approach, used more urbane means of drawing attention to their businesses.

In assessing the Wagon Wheel Junction's integrity, if the motel/restaurant complex and its setting had maintained more fidelity it could potentially be an important example of roadside architecture, which enjoyed a relatively brief heyday in America's pre and immediate postwar years. However, the buildings and their setting have undergone so many alterations in the years after circa-1955, that they can no longer effectively convey their original western theme appearance and association. Therefore, the property is not eligible as a County Landmark, under Criterion 1.

Remainder of the Complex

Only one of the remaining buildings at Wagon Wheel Junction, the Second Generation Modernist style commercial building, at 306 Cactus Avenue, retains sufficient integrity to convey its original design scheme. The building is an example of the type of modestly-scaled Modernist style commercial building built in great numbers during the period between circa-1950 and the mid-1960s. However, while the building is substantially intact it represents a modest and reductive example of the style, and does not appear to embody sufficient design significance to qualify for designation under Criterion 1.

Criterion 3: *It is associated with the lives of persons important to Ventura County or its cities, California, or national history;*

The Wagon Wheel Junction property was associated for 55 years with Martin V. Smith, one of the most influential developers and philanthropists in post-World War II Ventura County. Smith was responsible for, or played a leading role in, the construction of major commercial, retail, and residential projects in the City of Oxnard and Ventura County. These included the Oxnard Financial Plaza, Esplanade Mall, the Carriage Square retail center, Channel Islands Harbor, as well as numerous other businesses and industrial parks. He founded Farmers and Commercial Bank and helped develop numerous residential projects and subdivisions. Wagon Wheel Junction was Smith's first important development and helped establish him as one of the County's leading developers and boosters. In subsequent years his numerous and substantial donations to local charities, such as Saint John's Hospital and California State University, Channel Islands, made an important contribution to the well-being of the community. If Wagon Wheel Junction had retained sufficient integrity to convey its appearance during its period of significance (1947-1955), which encompasses Smith's initial development of the property, it could be eligible for designation because of its association with Smith. However, later alterations to the complex have significantly diminished its ability to covey its period of significance. Therefore, the property is not eligible as a County landmark under Criterion 3.

Criterion 5: *It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;*

Motel/ Restaurant Complex at 2751-2755 Wagon Wheel Road

If the motel/restaurant complex had retained sufficient integrity of design, materials, setting, and feeling it would potentially be eligible for designation under this criterion as an important example of roadside architecture. However, the extensive series of alterations carried out since the early 1960s has significantly diminished the property's ability to convey this association. The surrounding industrial complex does contain a number of commercial/retail/industrial buildings dating from early 1950s to the mid-1960s. None of these buildings represent a distinguished architectural entity, either as an individual element or as part of a larger assemblage of buildings and features. Almost without exception these buildings have undergone and extensive series of alterations and modifications since their construction and no longer retain sufficient integrity to convey their original scheme or plan. Therefore, neither the motel/restaurant complex nor the surrounding industrial/commercial park embodies sufficient integrity or architectural importance to be eligible for designation as a County landmark under Criterion 5.

The Building at 306 Cactus Avenue

As noted above, 306 Cactus Avenue is a very modest interpretation of Second Generation Modernism, of which a number of examples were built in Ventura County and Oxnard in the post-World War II period. Better examples of the style exist in the region. Therefore, the building at 306 Cactus Avenue does not embody sufficient architectural significance to qualify for designation under Criterion 5.

5.5.2 Determination of Eligibility for Listing in the California Register of Historical Resources

The following criteria, which are part of the State Public Resources Code, were used to determine the potential historical significance of Wagon Wheel Junction:

15064.5. Determining the Significance of Impacts to Archeological and Historical Resources

For purposes of this section, the term "historical resources" shall include the following:

1) *A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources Commission (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).*
2) *A resource included in a local register of historical resources, as defined in section 5020.1 (k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.*
3) *Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:*

A) *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
B) *Is associated with the lives of persons important in our past;*
C) *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
D) *Has yielded, or may be likely to yield, information important in prehistory or history.*

4) *The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources*

Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1 (j) or 5024.1.

2) A resource included in a local register of historical resources, as defined in section 5020.1 (k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

Wagon Wheel Junction has not been designated by the County of Ventura as a Landmark or Site of Merit (The county ordinance states that any property with a NRHP status code of 1 – 5 is considered a designated Site of Merit). Therefore, the property is not considered a significant historical resource under this criterion for the purposes of CEQA review.

3A) *Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:*

A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

The previous assessment carried out by San Buenaventura Research Associates in 1999 and additional research carried out by *Post/Hazeltine Associates* as part of the current study established the historic themes that were associated with Wagon Wheel Junction. However, the ability of the property to convey its association with these themes, which included the expansion of the freeway system in the post-World War II period, has been significantly effected by the property's loss of integrity. Therefore, the property, which does not qualify for listing at the local level, does not qualify for listing under Criterion 3a.

C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

The surviving elements of the Wagon Wheel Junction motel/restaurant complex, with their exaggerated and stylized architectural motifs, typify the type of roadside development built in California between circa 1945 and the late-1950s, primarily with the intention of drawing customers from the adjacent highway. Roy Beatty, a former Hollywood set designer in the entertainment industry, reputedly designed the restaurant. Former vernacularly styled barrack buildings were moved to the Wagon Wheel site to be re-configured as motel rooms. The buildings were embellished with western themed motifs conveyed through schematic and stylized ornamentation, rather than architectural elements appropriate to late nineteenth to early twentieth century buildings. The decorative treatment included wagon wheels used as window frames, wrought-iron branding irons for door handles, and decorative roof cupolas (whose design mimics the appearance of dovecotes). While Beatty may have been responsible for the design scheme, his role as a designer does not appear to be of such note that the property would be eligible for designation because of its association with him. Moreover, the ability of the property to convey its original western themed architecture has been significantly diminished by a number of subsequent alterations made to the property that are less than 50-years old. While some of these changes were in character with the original western theme of the buildings, others, including the construction of a new lobby, and the replacement of many of the original windows, doors, and siding, has diminished the ability of the complex to convey its appearance during the property's period of significance (1947-1955). Therefore, the motel/restaurant complex at Wagon Wheel Junction lacks sufficient integrity to qualify for listing under Criterion 3c.

D) *Has yielded, or may be likely to yield, information important in prehistory or history.*

The potential for late nineteenth or early twentieth century archaeological deposits associated with the agricultural history of the property is relatively low, given the extensive grading associated with Smith's development of the property beginning in the late-1940s. The existing Wagon Wheel Junction complex does not appear to embody additional historic themes that would require further evaluation by a related discipline. Therefore, the property does not meet Criterion 3d.

5.5.3 National Register Criteria for Evaluation

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
(b) That are associated with the lives of persons significant in our past, or
(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
(d) That have yielded, or may be likely to yield, information important in prehistory or history.

A previous study, prepared in 1999 by San Buenaventura Research Associates, determined that Wagon Wheel Junction's motel/restaurant complex lacked sufficient age to qualify for evaluation using the guidelines established for evaluating eligibility for listing in the National Register of Historic Places (San Buenaventura Research Associates 1999: 6-7). The report made the following statement regarding the need for further study of Wagon Wheel Junction's motel/restaurant complex:

> *However, it should be noted that the property may become eligible for the NRHP when the majority of the buildings on the site become fifty years of*

age, at some point within three to thirteen years from the present. Further research would be required to determine precisely when the buildings attained their current appearance (San Buenaventura Research Associates 1999: 7).

Within the last six years a number of buildings associated with the Wagon Wheel Junction property have attained an age of 50 years or more, including the following: the semi-detached two-story motel building (1952); the freestanding units adjacent to the swimming pool (pool constructed in 1955, units in circa-1955-1962); additional units to the Wagon Wheel motel (1955); the *El Ranchito* Restaurant (1952); and additions and reconfigurations to the Junction Motel (1953-1954). The majority of these buildings and features were built during Wagon Wheel Junction's period of significance (1947-1955) and, for the most part, continued to retain the western theme of the original Wagon Wheel Junction complex. Between 1956 and the mid-1960s, however, further alterations were made and it was during this period that modifications to the motel/restaurant complex began to move away from its original western themed design. Significantly impacting the ability of the complex to represent its original design, these non-contextual alterations and additions include the following: the addition of a lobby wing in 1962 and replacement of the original windows with metal framed sliders (1962 or later). As a result of these changes, the complex no longer retains sufficient integrity to convey its appearance during its period of significance (1947-1955), and, therefore, is not eligible for listing in the National Register of Historic Places.

5.5.4 Summary Statement of Significance

Neither the Wagon Wheel motel/restaurant complex, nor other buildings or features located at Wagon Wheel Junction, maintain sufficient integrity to qualify for designation as a historic resource at the local, state, or national level. However, elements of the property, most particularly the Wagon Wheel motel/restaurant complex, did play a role in the development of the City of Oxnard and Ventura County, and merit special consideration in the planning process.

6.0 EVALATION OF DIRECT AND INDIRECT IMPACTS

6.1 Effect Statement

To assess the effects of the proposed project on the identified historic properties within the APE, the definition of significant effects from CEQA Appendix G(j) was used, coupled with the more specific language found in Section 106 of the National Preservation Act of 1966 (36 CFR Part 800 as amended). Under the County Historic Preservation Ordinance and CEQA, modifications or alterations to a designated historic resource must be evaluated to determine if they will result in an adverse impact to the resource. An adverse effect is defined as an action that will diminish the integrity of those aspects of the property that make it eligible for the listing at the local or state level, or in the National Register of Historic Resources. CEQA defines adverse effect in the following manner: *A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment* (Public Resource Code 15064.5 (b)). *Substantial adverse change in the significance of an historical resource means physical demolition, destruction,* *relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired* (Public Resource Code 15064.5 (b1). However, because the property does not qualify for designation at either the local, state or national level, the property is not considered an historic resource for the purposes of County environmental review and CEQA.

6.2 Direct Impacts of the Proposed Project

The applicant proposes to demolish the property's existing improvements, including its buildings, streets, infrastructure, and landscaping and replace it with a mixed-use project that would include housing, retail, and commercial property. The effect of the project on the resources identified in this report is considered to be adverse, but not significant (Class III).

6.3 Indirect Impacts of the Proposed Demolition to Adjacent Historic Resources

No properties listed on City, County, State or National lists of historic resources are located near the project area. Therefore, the proposed demolition of the complex of buildings at Wagon Wheel Junction would not significantly effect historic resources.

7.0 ADVISORY MITIGATION MEASURES

While the proposed demolition would not significantly effect historic resources eligible for listing at the city, county, state, or national level, it will remove the surviving elements of the motel/restaurant complex associated with Wagon Wheel Junction's period of significance (1947-1955). In order to preserve a record of the property for the community and preserve the memory of the motel/restaurant complex and its association with Martin V. Smith, the following range of mitigation measures is offered for development of a Certificate of Appropriateness (COA) for the proposed project. If the advisory mitigation measures are implemented then the residual impacts would remain less then significant.

1) Photo-document the following features before their demolition:

   - Wagon Wheel Motel (exterior elevations of motel). Record the exterior of the motel, including its signage, using large-format photography. Document, through large-format photography, surviving elements of the motel's original landscaping. The level of documentation should be sufficient to preserve a visual record of the buildings that comprise the motel complex.

   - Wagon Wheel Restaurant (exterior elevations and selected interiors). Record the exterior of the restaurant, including its signage using large-format photography. Photo-document using large-format photography the dining room and bar. Document, through large-format photography, surviving elements of the restaurant's original landscaping.

- *El Ranchito* Restaurant (exterior elevations). Record the exterior of the restaurant including its signage, using large-format photography. Photo-document using large-format photography the dining room and bar. Document, through large-format photography surviving elements of the restaurant's original landscaping.

- Copies of the documentation should be archived at the Oxnard Public Library and the Ventura County Museum of History and Art for the enrichment of the local community.

2) Preserve the following elements of the motel/restaurant complex:

- Preserve the motel's neon "horse and buckboard" sign and incorporate it into the new development. This will require its relocation. Suitable signage identifying the history of the sign should be incorporated into the design of the relocated sign.
- Offer to donate selected elements of the motel/restaurant for retention in the Ventura County Museum of History and Art. These could include elements, such as the wagon wheel windows, or the wrought branding iron fixtures. Decorative elements from the interior of the restaurant such as lighting, photographs, and furniture, also should be included in the donation offer.

3) Appropriate on-site commemoration of Wagon Wheel Junction and its history:

- Provide a plaque commemorating the Wagon Wheel site and/or incorporate in a display, selected elements of the complex, such as wagon wheels, branding irons, or other decorative fixtures.

8.0 SUMMARY AND CONCLUSIONS

The applicant proposes to demolish the existing Wagon Wheel Junction complex and replace it with a mixed-use development. In its existing state of preservation the Wagon Wheel Junction complex is not eligible for listing as a County of Ventura Landmark or Site of Merit. Therefore, under CEQA, demolition of the buildings within the Wagon Wheel Junction property is considered adverse, but not significant.

While the Wagon Wheel Junction property is not eligible for listing, it did play a notable role in the development of the City of Oxnard and was associated with several themes important to local history. Consequently, a series of advisory mitigation measures have been outlined in Section 7.0 of the report in order to provide a visual record of the property and to preserve physical elements of the complex, most notably several of its neon signs. The applicant is strongly encouraged to implement these measures for the benefit of both the City of Oxnard and surrounding Ventura County. Residual impacts to historic resources after the implementation of the recommended mitigation measures would remain less than significant.

9.0 BIBLIOGRAPHY AND RESOURCES CONSULTED IN THE PREPARATION OF THIS REPORT

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Map of Wagon Wheel, circa-1989, on file at Oxnard Village Properties.

SAN BUENAVENTURA RESEARCH ASSOCIATES

MEMORANDUM

1328 Woodland Drive • Santa Paula CA • 93060

805/525-1909
Fax 805/525-1597
sbra@historicresources.com
www.historicresources.com

To: Abe Leider, Rincon Consultants, Inc.
From: Mitch Stone, San Buenaventura Research Associates
Date: 15 December 2006
Re: Historic Resources Report Peer Review, Wagon Wheel Junction, Oxnard

1. Introduction

The memorandum is a professional peer review of a previously prepared historic resources report for the property at the above location in the City of Oxnard. The report was prepared by Post/Hazeltine Associates for the Daly Owen Group and is dated September 30, 2005.

This investigator, upon considering the property in question, the historical evidence, the relevant architectural literature, and the criteria for eligibility, concluded that no buildings or structures on the property were eligible for listing on the National Register of Historic Places, California Register of Historical Resources or for designation as a local landmark. SBRA has been tasked to summarize and review the arguments made in this report and to provide an opinion with respect to the property's qualification as an historic resources for purposes of CEQA and the Environmental Impact Report being prepared in connection with the property's proposed redevelopment.

Further, project impacts will be determined and feasible mitigation measures intended to reduce or eliminate impacts will be proposed, as necessary and appropriate. In accordance with the CEQA Guidelines, the primary methodology for the development of a mitigation plan will be the *Secretary of the Interior's Guidelines for Rehabilitation*, appropriate NRHP standards, and local guidelines.

A field investigation of the property was conducted by SBRA on November 3, 2006 for purposes of verification of existing conditions. The conditions on the property and its immediate vicinity at this date did not appear to have been significantly altered from the date of preparation of the Post/Hazeltine Associates report.

Project Description

The proposal involves the redevelopment of all existing uses on the 64-acre site with a mixed-use commercial and residential project. Proposed land uses include three-story townhomes; three-story live work town homes; four-story condominiums above two levels of subterranean parking; four-story mixed use buildings with two or three stories of residential condominiums above commercial retail/office uses with subterranean parking; and two 20 to 25-story residential towers. The commercial component would consist of a one- or two-story community retail and commercial office/retail located below the live/work townhouses and the mixed use condominiums. The project would also include a neighborhood park. The project would include closing the existing mobile home park. Virtually all on-site buildings and infrastructure would be removed.

2. Property Background

Physical Description

The project site consists of a 64-acre industrial, commercial and residential area generally bounded by Oxnard Boulevard (SR 1) on the east, the Ventura Freeway (U.S. 101) on the north and Union Pacific Railroad right-of-way on the south and west. The site consists of 36 properties, mainly one and two-story commercial and industrial buildings, constructed between the mid-1940s and 1980.

Property History

This property was developed by Oxnard developer Martin V. "Bud" Smith on a site near the junction of State Route 1 and U.S. 101 he purchased from local rancher Henry Borchard in 1945. In 1947 Smith took over the existing Junction Motel on the property, relocating several surplus World War II military buildings to the site and converting them to additional motel units and a restaurant. The complex was positioned to take advantage of the improvements then being made to the highway interchange which provided improved access to the property from these two increasingly travelled main routes.

The new businesses were called the Wagon Wheel Motel and Restaurant. Also included in the facilities were a garage, nursery, golf-driving range, cafe and three light industrial operations. The motel and restaurant picked up a rustic Western architectural theme and attracted attention from the highways with animated neon signs.

In 1952 Smith announced a plan to develop the balance of the property, which was now known as Wagon Wheel Junction and marked by a massive freestanding neon sign, as a light industrial tract. The Wagon Wheel Restaurant and Motel leases were turned over to Fred and Paul Humphreys, and expanded. A bowling alley was constructed nearby, and a garage building remodeled as the El Ranchito Mexican Cafe. During the 1950s and 1960s, Smith leased and built out the balance of the Wagon Wheel Junction property for industrial and commercial tenants. A modest "restaurant row" developed along the west side of Oxnard Boulevard (S.R. 1), including the Wagon Wheel Restaurant and the Polynesian-themed Tradewinds.

Oxnard entrepreneur and developer Martin Vance "Bud" Smith was born in Sioux Falls, South Dakota in 1916 and came to California with his family at the age of three. His father, a banker, moved the family to Beverly Hills in 1925. Smith's father died in 1929, leaving the family in financial straits and forcing Martin Smith into an early working career. He dropped out of high school to work full time maintaining vending machine and juke boxes. In 1941, in exchange for a debt on a jukebox at an Oxnard Boulevard hamburger stand, Smith acquired the business. Smith built this modest restaurant into the Colonial House Restaurant, which he transformed into one of Oxnard's most popular dining spots.

After returning from a stint as bombing reconnaissance photographer in the South Pacific during World War II, Smith purchased the land that became known as Wagon Wheel Junction and began developing it in 1947. He formed Martin V. Smith Associates which in 1959 purchased the Oxnard Sugar Beet Factory site and redeveloped it as an industrial park. From the 1950s on, Martin V. Smith Associates was responsible for dozens of projects in Oxnard and elsewhere in California, including a major motel, restaurant and shopping complex, apartments, the Maritime Museum at the Channel Islands Harbor, the Carriage Square Shopping Center, the Esplanade Shopping Center and the Financial Plaza, which includes the tallest buildings in Ventura County. Smith also established the Commercial and Farmers National Bank.

During his lifetime, Smith maintained tight control over the land his company had developed since 1941, selling little. At its peak, his holdings amounted to over 200 properties including hotels, apartments, restaurants and office buildings spread across Santa Barbara, Ventura and Los Angeles counties, a real estate empire valued at more than $150 million dollars in 1995. However, in the years before his death in 2002, Smith began divesting himself of most of his holdings, except for the Wagon Wheel properties and the Carriage Square shopping center.

No single developer or land owner can claim a greater impact on the City of Oxnard during the post-War era, a period during which the city was transformed from a rural agricultural town into Ventura County's largest city. Smith was widely recognized, both during his lifetime and at his death, for his singular contributions to Oxnard's growth, form and character during this period. A community leader in many respects, Smith's philanthropic efforts include a $1 million donation to St. John's Regional Medical Center and the construction of the Maritime Museum at the Channel Islands Harbor.

3. Administrative Setting

The California Environmental Quality Act (CEQA) requires evaluation of project impacts on historic resources, including properties "listed in, or determined eligible for listing in, the California Register of Historical Resources [or] included in a local register of historical resources." A resource is eligible for listing on the California Register of Historical Resources if it meets any of the criteria for listing, which are:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

By definition, the California Register of Historical Resources also includes all "properties formally determined eligible for, or listed in, the National Register of Historic Places," and certain specified State Historical Landmarks. The majority of "formal determinations" of NRHP eligibility occur when properties are evaluated by the State Office of Historic Preservation in connection with federal environmental review procedures (Section 106 of the National Historic Preservation Act of 1966). Formal determinations of eligibility also occur when properties are nominated to the NRHP, but are not listed due to owner objection.

The criteria for determining eligibility for listing on the National Register of Historic Places (NRHP) have been developed by the National Park Service. Properties may qualify for NRHP listing if they:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or
B. are associated with the lives of persons significant in our past; or
C. embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. have yielded, or may be likely to yield, information important in prehistory or history.

According to the National Register of Historic Places guidelines, the "essential physical features" of a property must be present for it to convey its significance. Further, in order to qualify for the NRHP, a resource must retain its integrity, or "the ability of a property to convey its significance."

The seven aspects of integrity are: Location (the place where the historic property was constructed or the place where the historic event occurred); Design (the combination of elements that create the form, plan, space, structure, and style of a property); Setting (the physical environment of a historic property); Materials (the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property); Workmanship (the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory); Feeling (a property's expression of the aesthetic or historic sense of a particular period of time), and; Association (the direct link between an important historic event or person and a historic property).

The relevant aspects of integrity depend upon the National Register criteria applied to a property. For example, a property nominated under Criterion A (events), would be likely to convey its significance primarily through integrity of location, setting and association. A property nominated solely under Criterion C (design) would usually rely primarily upon integrity of design, materials and workmanship. The California Register procedures include similar language with regard to integrity.

The minimum age criterion for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) is 50 years. Properties less than 50 years old may be eligible for listing on the NRHP if they can be regarded as "exceptional," as defined by the NRHP procedures, or in terms of the CRHR, "if it can be demonstrated that sufficient time has passed to understand its historical importance" (Chapter 11, Title 14, §4842(d)(2))

Historic resources as defined by CEQA also includes properties listed in "local registers" of historic properties. A "local register of historic resources" is broadly defined in §5020.1 (k) of the Public Resources Code, as "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution." Local registers of historic properties come essentially in two forms: (1) surveys of historic resources conducted by a local agency in accordance with Office of Historic Preservation procedures and standards, adopted by the local agency and maintained as current, and (2) landmarks designated under local ordinances or resolutions. These properties are "presumed to be historically or culturally significant... unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant." (Public Resources Code §§ 5024.1, 21804.1, 15064.5)

City of Oxnard Landmark Criteria

In April 1991, the City of Oxnard adopted the Ventura County Cultural Heritage ordinance (§§1360-1374, as amended) by resolution (City of Oxnard Resolution No. 10135), including eligibility criteria and procedures, substituting references in the ordinance to the County of Ventura with the City of Oxnard. Since that time, the Ventura County Cultural Heritage Board has acted as the city's cultural heritage board. The criteria for designating properties for listing are:

1. It exemplifies or reflects special elements of the County's social, aesthetic, engineering, architectural or natural history;
2. It is identified with persons or events which are significant in national, state or local history;
3. It shows evidence of habitation, activity or the culture of prehistoric man;
4. It embodies elements of architectural design, details, materials or craftsmanship which represents a significant structural or architectural achievement or innovation;
5. It is representative of the work of a master builder, designer, architect or artist;
6. It is imbued with traditional or legendary lore;
7. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar feature associated with a neighborhood, community or the County of Ventura;
8. It is one of the few remaining examples in the County possessing distinguishing characteristics of an architectural or historical type or specimen.

Unlike the NRHP and CRHR, this resolution does not provide for a minimum age for listing, or criteria for the level of integrity required for a property to be eligible for landmark designation. However, the resolution does provide for designating a Point of Interest, which specifically includes altered properties which may not be eligible for landmark designation. A Point of Interest is defined as a property:

A. That is the site of a building, structure or object that no longer exists but was associated with historic events, important persons or embodied a distinctive character or architectural style; or
B. That has historic significance, but has been altered to the extent that the integrity of the original workmanship materials or style has been substantially compromised; or

C. That is the site of a historic event which has no distinguishable characteristics other than that a historic event occurred at that site, and the site is not of sufficient historical significance to justify the establishment of a landmark.

Although the ordinance provides no specific analytical standards for determining the level of integrity required for the designation of local landmarks, read together, these two sets of designation criteria suggest that at least a general standard of design integrity should be applied to the designation of landmarks.

4. Listing Status

No buildings or structures on the project site are currently listed or determine eligible for the NRHP, CRHR or for local landmark designation.

5. Summary of Eligibility Determination

The table below summarizes the properties evaluated by Post/Hazeltine Associates and reviewed by SBRA. Note that this table is based on Table 1 in the Post/Hazeltine Associates report (pp. 35-37) but has been updated to eliminate address duplications and other minor inconsistencies found in this table.

Address	*Name/Use*	*Date of Construction*	*Eligibility*
2700 Buckaroo Ave.	retail store	c. 1950-1956	
2730 Buckaroo Ave.	retail store	post 1956	
2731 Buckaroo Ave.	Roller rink	1956	
2737 Buckaroo Ave.	commercial/retail	post 1956	
304 Cactus Ave. (also 2705 Saddle Ave.)	industrial/warehouse	c. 1950-1956	
306 Cactus Ave.	commercial/retail	1955	
311 Cactus Ave.	commercial/retail	1956	
314-320 Cactus Ave.	commercial/industrial	1966	
329 Cactus Ave.	industrial/warehouse	post 1956	
330 Cactus Ave.	industrial/warehouse	c. 1950-1956	
331 Cactus Ave.	industrial/warehouse	post 1956	
333 & 333 1/2 Cactus Ave.	commercial/industrial	1956	

Address	*Name/Use*	*Date of Construction*	*Eligibility*
350 Cactus Ave.	commercial/industrial	1971	
2640 Saddle Rd.	commercial/industrial	c. 1950-1956	
2601 Underpass Rd.	commercial/industrial	1960	
2603-2609 Underpass Rd. (also 2611-2645 Saddle Ave. & 342-350 Winchester Ave.)	commercial/industrial	1963, 1964	
2555 Wagon Wheel Rd.	retail	moved to property in 1958	
2575 Wagon Wheel Rd.	commercial/industrial	c. 1964	
2603 Wagon Wheel Rd.	commercial/industrial	c. 1968	
2605 Wagon Wheel Rd.	commercial/industrial	c. 1972	
2611 Wagon Wheel Rd.	commercial/industrial	c. 1968	
2615 Wagon Wheel Rd.	commercial/industrial	1963	
2635-2639 Wagon Wheel Rd.	American Legion Hall	c. 1955 with later additions	
2705 Wagon Wheel Rd.	commercial	1964 with later additions	
2751 Wagon Wheel Rd.	Junction and Wagon Wheel Motels	1947-1962	Landmark
2755 Wagon Wheel Rd.	Wagon Wheel Restaurant	1947-1962	Landmark
2765 Wagon Wheel Rd.	El Ranchito Restaurant	1947-1953 with later additions	Landmark Area
2801 Wagon Wheel Rd.	Wagon Wheel Bowling Alley	1953	Landmark Area
2821 Wagon Wheel Rd.	commercial	1966	

Address	*Name/Use*	*Date of Construction*	*Eligibility*
2851 Wagon Wheel Rd.	Western Trailer Park	1953 with later additions	
800-884 Wagon Wheel Rd.	commercial	1980	
300 Winchester Ave.	commercial/industrial	c. 1965	
301 Winchester Ave. and 2640 & 2644 Saddle Ave.	commercial/industrial	1956	
310 Winchester Ave.	commercial/industrial	c. 1966	
334 Winchester Ave.	commercial/industrial	c. 1957	
338 Winchester Ave.	commercial/industrial	c. 1958	

Summary of Post/Hazeltine Associates Findings

The buildings on the Wagon Wheel Junction property were evaluated by Post/Hazeline Associates individually for the NRHP, CRHR, Ventura County Landmarks, and as potential contributors to a "vernacular cultural landscape." Although they were found to be associated with the post-War era of commercial and industrial development of Oxnard, and to be associated with an historically important individual (Martin V. Smith), none of the buildings on the property were found by Post/Hazeline Associates to be eligible for any designation, primarily on the basis of a lack of age and/or integrity.

6. Eligibility Opinion of San Buenaventura Research Associates

National Register of Historic Places and California Register of Historical Resources

SBRA generally concurs with Post/Hazeltine Associates with respect to the eligibility of the properties within the survey for individual listing on the NRHP or CRHR. Of the 36 properties identified within the survey area, 21 are of insufficient age to be regarded as potentially eligible, even after taking into account the passage of one year since the completion of the Post/Hazeltine Associates survey. Of the remaining 15 properties, only four properties appear to be potentially eligible:

2751 Wagon Wheel Road (Junction and Wagon Wheel Motels)
2755 Wagon Wheel Road (Wagon Wheel Restaurant)
2765 Wagon Wheel Road (El Ranchito Restaurant)
2801 Wagon Wheel Road (Wagon Wheel Bowling Alley)

All of these properties are potentially eligible under Criterion A/1 (historical events) for their association with the post-War commercial development of Oxnard, and under Criterion C/3 (design), as examples of roadside commercial architecture. In addition, 2751 and 2755 Wagon Wheel Road may be eligible under Criterion B/2 (historic individual) for their association with Martin V. Smith, who started, owned and ran these businesses for a number of years during the late 1940s and early 1950s. However, all of these properties have been somewhat to significantly altered within the last 50 years, to the extent that none have the ability to convey their significance, in terms of the NRHP and CRHR standards, and the overall integrity of setting has been substantially diminished. Therefore, SBRA concurs with Post/Hazeltine Associates that none of the properties within the project area should be considered eligible for the NRHP or CRHR.

Cultural Landscape

The Post/Hazeltine Associates report evaluates the Wagon Wheel Junction area as a potential cultural landscape, and finds it to be ineligible for listing on this basis. In SBRA's opinion, a more conventional approach to evaluating a grouping of buildings which may not be individually eligible for listing but may be eligible in combination with each other, is as a potential historic district. Within the National Register procedures, an historic district is defined as "a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development." At a minimum, a simple majority of buildings and structures should have the ability to contribute to the historic district. A stronger case for eligibility can be made if two-thirds or more contribute.

Of the 36 properties located within the Wagon Wheel Junction area, a maximum of 15, or substantially less than half, could potentially contribute to the formation of an historic district on the basis of age considerations alone. Fewer properties would be likely to contribute to the formation of a district if the design integrity of the buildings was also taken into consideration. Consequently, it does not appear that a NRHP or CRHR historic district could be supported in the study area.

Properties Less Than 50 Years of Age

Properties less than 50 years of age may be eligible if they can be found to be "exceptional." While no hard and fast definition for "exceptional" is provided in the NRHP literature, the special language developed to support nominating these properties was clearly intended to accommodate properties which demonstrate a level of importance such that their historical significance can be understood without the passage of time. In general, according to NRHP literature, eligible "exceptional" properties may include, "resources so fragile that survivors of any age are unusual. [Exceptionalness] may be a function of the relative age of a community and its perceptions of old and new. It may be represented by a building or structure whose developmental or design value is quickly recognized as historically significant by the architectural or engineering profession [or] it may be reflected in a range of resources for which the community has an unusually strong associative attachment."

None of the subject properties in the study area which are less than 50 years of age, or have been attained their current appearance within the last 50 years, appear to rise to the exceptional level of significance required to list a property which is not presently 50 years of age. None of the properties were designed by architects who have made important, documented contributions to their profession or represent a style of architecture which has been identified in the literature as being of exceptional importance to the state, nation or region.

For properties associated with an important individual to be regarded as having exceptional significance, documentation to support a nomination would be required to demonstrate both the transcendent importance of the individual, and their intimate association with the property. While Martin V. Smith is clearly a significant individual within the post-War developmental history of Oxnard, the magnitude of his importance is currently not documented to the extent that it could be used to sustain an argument for exceptional significance. Further, the currently available evidence suggests that his association with the properties in question was primarily as a real estate owner and developer, and only briefly or sporadically as a business operator.

City of Oxnard Landmark

Post/Hazeltine Associates evaluated the eligibility of buildings within the Wagon Wheel Junction area for designation as Ventura County Cultural Heritage Sites. They found two properties to be potentially eligible under criteria 1, 3 and 5:

2751 Wagon Wheel Road (Junction and Wagon Wheel Motels)
2755 Wagon Wheel Road (Wagon Wheel Restaurant)

Post/Hazeltine Associates found neither property to be eligible due to a lack of design integrity resulting from the alterations which occurred to the buildings after 1955, and a loss of setting integrity resulting from the construction of the freeway.

The basis for their evaluation was the current ordinance governing the designation of Landmarks and Sites of Merit within unincorporated Ventura County. However, while the Ventura County Cultural Heritage Board convenes and acts as the Oxnard Cultural Heritage Board, the City of Oxnard has not adopted the landmarks criteria currently utilized by the County of Ventura. In April 1991, the City of Oxnard adopted the Ventura County Cultural Heritage ordinance (§§1360-1374, as amended) by resolution (City of Oxnard Resolution No. 10135), including eligibility criteria and procedures, substituting references in the ordinance to the County of Ventura with the City of Oxnard. Since that time, the Ventura County Cultural Heritage Board has acted as the city's cultural heritage board.

When acting as the Oxnard Cultural Heritage Board, the Ventura County Cultural Heritage Board employs the Ventura County landmarks criteria which were in effect when they were adopted by the City of Oxnard by resolution in 1991 (as cited in Section 3 of this memorandum). The most notable difference between the two sets of criteria is the addition of explicit integrity standards to the current Ventura County ordinance, but which remain absent from the Oxnard resolution. In practice, a more general standard for evaluating integrity applies within the City of Oxnard. Further, neither the Ventura County nor the City of Oxnard standards include a fifty year cut-off for eligibility.

Eligibility Discussion: SBRA does not concur with the local eligibility determination for these properties made by Post/Hazeltine Associates. Both of these properties are significant for their association with Martin V. Smith and particularly as the oldest known extant properties to have been owned, developed and operated by Smith (Criterion 2). They are also notable as relatively scarce local examples of roadside architecture, and may remain eligible despite alterations which occurred to the motel lobby and restaurant in 1962 (Criteria 1, 4 and 8).

Construction at the Wagon Wheel Motel began in 1947, when surplus World War II military barracks were relocated from the Seabee base at Port Hueneme and adapted for use as the Junction Motel. Included in this initial phase of development were the restaurant/office building and 40 motel units adjacent to the restaurant to the east. Some of the original five-panel doors of these units have been replaced with contemporary raised-panel doors. Many of the original wood sash windows have been replaced with modern aluminum windows, within the original openings. The dates of these alterations are not currently known.

Additional units were added in at least two phases, to the east and south of the first motel units between 1952 and 1962, bringing the complex to a total of 76 units. A swimming pool was constructed in 1955. Changes after 1955 consist of the construction of three decorative used brick chimneys added to the front of the restaurant, probably circa 1962, possibly constructed of brick salvaged from the Oxnard Sugar Beet factory. The second-story apartment behind the motel lobby, and probably the currently lobby itself, was added in the same year, forming a porte-cochere over the driveway. The restaurant porch was probably enclosed during this remodeling phase. In 1981 a fire in the office/lobby area resulted in the reconstruction of the cantilevered roof.

The motel and restaurant complex apparently attained much of their present appearance by the mid-1950s. The 1962 enlargements and alterations appear to be limited primarily to the lobby area and the restaurant porch. These changes maintained the overall architectural scheme which was established for the property during the late 1940s and continued through the expansions of the mid-1950s, and which gives rise to one aspect of its local significance. Based on the available documentation, it appears that no further major alterations to the buildings occurred after 1962. Although the property's relationship with U.S. 101 was altered with the construction of the freeway, the motel and restaurant maintain their original, important physical and functional relationship with frontage road (now Wagon Wheel Road, originally known as Outer Highway).

Although the Oxnard landmark standards make no specific provisions for the establishment of historic districts, the Oxnard City Council on the recommendation of the Ventura County Cultural Heritage

Board acting as the Oxnard Cultural Heritage Board, designated 137 properties within F and G street residential district as a "landmark area" in 1999. Given this precedent, in the opinion of SBRA, two additional buildings along with the properties above, may be locally eligible within a potential historic landmark grouping supporting the roadside architecture theme:

2765 Wagon Wheel Road (El Ranchito Restaurant)
2801 Wagon Wheel Road (Wagon Wheel Bowling Alley)

Conclusion

The four properties referenced above should be regarded as historic resources for the purposes of CEQA.

7. Project Impacts, Mitigation Measures and Residual Impacts

Impact Thresholds and Mitigation

According to PRC §21084.1, "a project that may cause a substantial change in the significance of an historical resource is a project that may have a significant effect on the environment." The Public Resources Code broadly defines a threshold for determining if the impacts of a project on an historic property will be significant and adverse. By definition, a substantial adverse change means, "demolition, destruction, relocation, or alterations," such that the significance of an historical resource would be impaired (PRC §5020.1(6)). For purposes of NRHP eligibility, reductions in a resource's integrity (the ability of the property to convey its significance) should be regarded as potentially adverse impacts.

Further, according to the CEQA Guidelines, "an historical resource is materially impaired when a project... [d]emolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources [or] that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant."

The lead agency is responsible for the identification of "potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource." The specified methodology for determining if impacts are mitigated to less than significant levels are the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings and the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (1995), publications of the National Park Service. (PRC §15064.5(b)(3-4))

Impact. The proposed project calls for the demolition of all the buildings on the project site. This should be regarded as an adverse impact on historic resources which cannot be mitigated to a less than significant and adverse level.

Mitigation Measures

A principle of environmental impact mitigation is that some measure or combination of measures may, if incorporated into a project, serve to avoid or reduce significant and adverse impacts to a historic resource. In reference to mitigating impacts on historic resources, the CEQA Guidelines state:

> Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant. (PRC §15126.4 (b)(1))

These standards, developed by the National Park Service, represent design guidelines for carrying out historic preservation, restoration and rehabilitation projects. The Secretary's Standards and the supporting literature describe historic preservation principles and techniques, and offers recommended means for carrying them out. Adhering to the Standards is the only method described within CEQA for reducing project impacts on historic resources to less than significant and adverse levels.

The demolition of an historic property cannot be seen as conforming with the *Secretary of the Interior's Standards*. Therefore, the absolute loss of an historic property should generally be regarded as an adverse environmental impact which cannot be mitigated to a less than significant and adverse level. Further, the usefulness of documentation of an historic resource, through photographs and measured drawings, as mitigation for its demolition, is limited by the CEQA Guidelines, which state:

> In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur. (PRC §15126.4 (b)(2))

Implied by this language is the existence of circumstances whereby documentation may mitigate the impact of demolition to a less than significant level. However, the conditions under which this might be said to have occurred are not described in the Guidelines. It is also noteworthy that the existing CEQA case law does not appear to support the concept that the loss of an historic resource can be mitigated to less than adverse impact levels by means of documentation or commemoration. (League for Protection of Oakland's Architectural and Historic Resources v. City of Oakland [1997] 52 Cal. App. 4th 896)

Taken in their totality, the CEQA Guidelines require a project which will have potentially adverse impacts on historic resources to conform to the *Secretary of the Interior's Standard*s, in order for the impacts to be mitigated to below significant and adverse levels. However, CEQA also mandates the adoption of feasible mitigation measures which will reduce adverse impacts, even if the residual impacts after mitigation remain significant. Means other than the application of the Standards would necessarily be required to achieve this level of mitigation. In determining what type of additional mitigation measures would reduce impacts to the greatest extent feasible, best professional practice dictates considering the level of eligibility of the property, as well as by what means it derives its significance.

Mitigation programs for impacts on historic resources tend to fall into three broad categories: documentation, design and interpretation. Documentation techniques involve the recordation of the site according to accepted professional standards, such that the data will be available to future researchers, or for future restoration efforts. Design measures could potentially include direct or indirect architectural references to a lost historic property, e.g., the incorporation of historic artifacts, into the new development, or the relocation of the historic property to another suitable site. Interpretative measures could include commemorating a significant historic event or the property's connection to historically significant themes.

Mitigation Measures

This historic resources to be demolished derive their significance and eligibility from both architectural and historical themes. Consequently, a mitigation program should include documentation, design and interpretive measures. The following measures shall be incorporated into the project design, mitigation program, and/or environmental document produced for this project:

1. A Documentation Report shall be prepared by a qualified historic preservation professional, consisting of archival quality photographs and measured drawings of the significant buildings and structures to be demolished and a historic resources report prepared for the property. Copies of the Documentation Report shall be submitted to an appropriate repository upon completion.

2. In consultation with a qualified historic preservation professional, and based on a comprehensive inventory of historic architectural features, the design of the project shall preserve and incorporate significant features of the historic properties, which should include but not necessarily be limited to freestanding and attached signs and other notable character-defining architectural elements of the historic properties.

3. In consultation with a qualified historic preservation professional, a permanent on-site interpretive display describing the property's significant historic themes shall be designed and incorporated into the the project.

4. A video-based oral history project shall be undertaken for the purpose of documenting the recollections of individuals with knowledge of the property's history and the life and work of Martin V.

Smith. This project shall be directed by a qualified historic preservation professional and be submitted to an appropriate repository upon completion.

5. Two television programs of at least 30 minutes in length shall be produced on the history of the Wagon Wheel Junction and the life and work of Martin V. Smith for broadcast on the Oxnard public access channel. The programs shall completed in consultation with a qualified historic preservation professional and based at least in part on the historic resources report and oral history program required in mitigations measures 1 and 4, above.

Impacts After Mitigation

Significant and adverse.

8. Sources

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Applied EarthWorks Inc.

5090 North Fruit Avenue
Suite 101
Fresno, CA 93711-3064
(559) 229-1856
FAX (559) 229-2019

22 May 2007

Rincon Consultants, Inc.
Att'n: Mr. Abe Leider
790 East Santa Clara Street
Ventura, CA 93001

RE: Peer Review of Historic Resource Evaluations
Wagon Wheel Junction Site (Oxnard Village Specific Plan), Oxnard, California

Dear Mr. Leider:

Per your request, Applied EarthWorks, Inc. (Æ) has reviewed two reports concerning the historic resources of the Wagon Wheel Junction area in Oxnard. Pamela Post of Post/Hazeltine Associates produced the first of these, the *Historic Resources Report for a 64-Acre Parcel at Wagon Wheel Junction*, in 2005 on behalf of the Daly Owen Group. In 2006, Mitch Stone of San Buenaventura Research Associates (SBRA) reviewed the Post/Hazeltine report and assessed the adequacy of their resource evaluations and mitigation recommendations. These two reports contained conflicting significance evaluations of four structures within the project area:

the Junction and Wagon Wheel motels;
the Wagon Wheel Restaurant;
the El Ranchito Restaurant; and
the Wagon Wheel Bowling Alley.

You have requested Æ's assessment of these two reports to determine which evaluation of the structures best meets national, state, and local regulations concerning historic resources. You also requested that we review the suitability of mitigation measures contained in these reports and their consistency with CEQA law and practice. In this regard, Æ reviewed both the Post/Hazeltine report and the SBRA peer review. Additionally, Æ visited the Wagon Wheel site on May 2, 2007. The conditions of the properties have not changed substantially since preparation of the SBRA report. The only noticeable change, the covering of windows and doors with plywood to prevent illicit activities, has not affected the integrity of the structures. The conclusions of the two reports and Æ's independent assessment are summarized below.

The Post/Hazeltine Report (2005)

The Post/Hazeltine report contains a thorough and well-written historical context. The individual building descriptions are adequate. Post/Hazeltine identified 36 structures within the project area. Of those, only 12 were of sufficient age to be considered historic properties. These properties were found to be associated with the post-World War II commercial development of Oxnard during the period from 1947-1955 (significance criterion A/1) and with Martin V. Smith, an individual important in the history of Oxnard (significance criterion B/2). These properties also embody the

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5090 North Fruit Avenue
Suite 101
Fresno, CA 93711-3064
(559) 229-1856
FAX (559) 229-2019

distinctive characteristics of California's post-World War II roadside commercial architecture (significance criterion C/3).

Post/Hazeltine (2005:43) argued that structures moved into the area after the period of significance "have obscured the design, or introduced elements out of character with the original buildings or site." Additionally, they stated that unsympathetic alterations and modifications to the significant buildings "have significantly impacted the ability of the property to convey its association with Martin V. Smith" (Post/Hazeltine 2005:43). Therefore, Post/Hazeltine found that the integrity of the structures in the Wagon Wheel Junction area had been substantially diminished; thus they are not eligible individually for the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR). Post/Hazeltine also found that this loss of integrity made the Wagon Wheel Junction area ineligible as a cultural landscape.

Post/Hazeltine also evaluated the buildings in the project area according to County Landmarks significance criteria adopted in the 2000 County of Ventura Cultural Heritage Ordinance. Again, Post/Hazeltine found that the integrity of the structures was so diminished through alteration and modification that they had lost their ability to effectively convey their significance. In conclusion, Post/Hazeltine found that none of the structures in the project were eligible for listing in local, state, or national registers of significant cultural properties. They therefore concluded that none of the structures in the proposed development area qualified as historical resources under CEQA, and thus the proposed project would not impact cultural resources. However, they did state that

> elements of the property, most particularly the Wagon Wheel motel/restaurant complex, did play a role in the development of the City of Oxnard and Ventura County, and merit special consideration in the planning process [Post/Hazeltine 2005:50].

To this end, Post/Hazeltine gave advisory mitigation measures that would allow photodocumentation of the Wagon Wheel Motel, Wagon Wheel Restaurant, and El Ranchito Restaurant; preservation of the Wagon Wheel Hotel neon sign; donation of selected elements to the Ventura County Museum of History and Art; and a plaque commemorating the Wagon Wheel site.

San Buenaventura Research Associates (2006)

At the request of Rincon Consultants, SBRA reviewed the Post/Hazeltine report and assessed the adequacy of their resource evaluations and mitigation recommendations. SBRA also found 36 structures, fifteen of which were of sufficient age to be considered historical. Of these, SBRA found that only four met the significance criteria of the NRHP or CRHR: 2751 Wagon Wheel Road (Junction and Wagon Wheel Motels), 2755 Wagon Wheel Road (Wagon Wheel Restaurant), 275 Wagon Wheel Road (El Ranchito Restaurant), and 2801 Wagon Wheel Road (Wagon Wheel Bowling Alley). As with Post/Hazeltine, however, SBRA found that substantial alterations to these properties in the last 50 years had impacted their ability to convey their significance, resulting in a loss of integrity. Therefore, SBRA concurred with Post/Hazeltine that none of the properties were individually eligible for the NRHP or the CRHR.

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When reviewing Post/Hazeltine's evaluation of the entire building complex, SBRA determined that the group of buildings should be evaluated as a historic district rather than a cultural landscape. However, based on age alone, SBRA found that only 15 of the 36 properties would contribute to the significance of a historic district. Taking into account the design integrity of the buildings, SBRA concluded that even fewer buildings would contribute. Thus, they found that the Wagon Wheel Junction area was not eligible as either a NRHP or CRHR historic district.

SBRA then applied the local landmarks criteria, and reached a conclusion different from Post/Hazeltine. SBRA found that the Wagon Wheel Motel and the Wagon Wheel Restaurant

> are significant for their association with Martin V. Smith and particularly as the oldest known extant properties to have been owned, developed and operate by Smith. They are also notable as relatively scarce local examples of roadside architecture and may remain eligible despite alterations which occurred to the motel lobby and restaurant in 1962…The motel and restaurant complex apparently attained much of their present appearance by the mid-1950s. The 1962 enlargements and alterations appear to be limited primarily to the lobby area and the restaurant porch. These changes maintained the overall architectural scheme which was established for the property during the late 1940s and continued through the expansions of the mid-1950s, and which gives rise to one aspect of its local significance [SBRA 2006:11].

SBRA also found that the El Ranchito Restaurant and the Wagon Wheel Bowling Alley are locally significant within a potential landmark grouping that would intensely convey the roadside architecture theme. SBRA therefore concluded that all four properties, the Junction and Wagon Wheel Motel, the Wagon Wheel Restaurant, the El Ranchito Restaurant, and the Wagon Wheel Bowling alley, should be listed as local landmarks, and thus should be regarded as historic resources for the purposes of CEQA.

Æ Analysis and Recommendations

Eligibility for listing on the national, state, or local registers of important cultural properties is generally judged by two factors: significance and integrity. Significance refers to a property's association with historically important events or individuals, its architectural style or aesthetic qualities, and/or its scientific importance. Integrity refers to the property's physical authenticity and its ability to convey or communicate its significant qualities to the public. To be eligible for the NRHP or CRHR, a property must be significant and it must retain integrity.

Both Post/Hazeltine and SBRA found that certain properties within the Wagon Wheel Junction site meet the criteria of significance for the NRHP and CRHR, but they do not retain sufficient integrity to be listed either individually or as a historic district. Æ concurs with these conclusions.

The conflict between Post/Hazeltine and SBRA's conclusions regarding local landmark status is based on the application of differing local standards. To understand this conflict, the circumstances

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Suite 101
Fresno, CA 93711-3064
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of cultural heritage review in Oxnard must be examined. In April 1991 the City of Oxnard, per Resolution No. 10135, adopted the Ventura County Cultural Heritage Ordinance, substituting "County of Ventura" with "City of Oxnard". Since that time, the Ventura County Cultural Heritage Board has acted as the City of Oxnard's cultural heritage board. In 2000, the County adopted a new set of cultural resource significance criteria. However, the City never adopted this new ordinance. The primary difference between these two sets of criteria "is the addition of explicit integrity standards to the current Ventura County ordinance, but which remain absent from the Oxnard resolution" (SBRA 2006:11).

Post/Hazeltine evaluated the Wagon Wheel Junction properties using the County ordinance passed in 2000, which emphasizes integrity is a key factor in determining eligibility for county landmark status. Because the integrity of the buildings has been substantially diminished, Post/Hazeltine found them ineligible for listing as local landmarks. SBRA followed the 1991 resolution, in which integrity is not as strictly defined. Under those more relaxed criteria, the modifications of the four significant buildings in the Wagon Wheel complex are not severe enough to disqualify them for listing as local landmarks.

Æ concurs with SBRA that the ordinance adopted by the City in 1991 is the governing statute and should have been employed when the Wagon Wheel Junction buildings were evaluated as local landmarks. Æ also concurs with SBRA's eligibility determinations. Because of their association with the post-World War II development of Oxnard and with Martin V. Smith, the structures are locally significant and should be granted landmark status. Additionally, the grouping of these four structures presents a prime example of 1950s roadside architecture that was once prevalent but is now rare. Therefore, these four structures should be considered historic resources for the purposes of CEQA.

Æ also reviewed and evaluated SBRA's impact analysis and mitigation recommendations. We concur that the proposed demolition of these properties would be a significant impact on the environment. According to the CEQA Guidelines, preservation, conservation, or other treatment of historic resources consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Weeks and Grimmer 1995) will generally mitigate impacts to a less-than-significant level. SBRA correctly states that neither the CEQA Guidelines nor case law supports the notion that documentation of a structure mitigates the effects of demolition to a less-than-significant level.

SBRA offers mitigation measures that would reduce the adverse impacts of demolition, though they would not mitigate the impact to less-than-significant levels. Briefly, these include documentation through measured photographs and drawings; preservation and incorporation of significant features, including signs and other character defining architectural elements, into the design of the new project; a permanent on-site interpretive display; a video-based oral history project that documents the property's history and the work of Martin V. Smith; and two television programs of at least 30 minutes that recall the history of the Wagon Wheel Junction and the life and work of Martin V. Smith.

5090 North Fruit Avenue
Suite 101
Fresno, CA 93711-3064
(559) 229-1856
FAX (559) 229-2019

Æ agrees that these mitigation measures would reduce the impacts of the project, as they serve to document and interpret the very parts of the structures that make them important. The life of Martin V. Smith, as well as the documentary and social history of the Wagon Wheel Junction, will be recorded and readily available for future study. The roadside architecture will be remembered by the preservation and careful placement of signage and architectural details. Although these measures will not mitigate the impacts of demolition insignificance, they will help to retain an important part of Oxnard history.

Thank you for the opportunity to review and comment on these two reports. Please contact me if you have any questions on the comments offered above, or wish to discuss the project further.

Sincerely,

Wendy M. Nettles, M.A., RPA
Applied EarthWorks, Inc.

References:

Post/Hazeltine Associates
2005 Historic Resources Report for a 64-Acre Parcel at Wagon Wheel Junction. Prepared for the Daly Owens Group, Santa Barbara.

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1995 The Secretary of the Interior's Standards for the Treatment of Historic Properties, with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. U.S. Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Heritage Preservation Services, Washington, D.C.

Appendix D

Hydrology Reports

City of Oxnard

The Village
Hydrology and Water Quality Technical Appendix

Administrative Draft

May 2007

Hydrology & Water Quality Technical Appendix

Prepared for:

Rincon Consultants, Inc.

Prepared by:

DIAMOND WEST
engineering a better tomorrow
Diamond West Engineering, Inc.
26800 Agoura Road, Suite 100
Calabasas, CA 91301
telephone: (818) 444-1800
fax: (818) 223-9215

Preface

Prepared by

Mike Harrison, P.E.
RCE #57,320, Expires: December 31, 2007

Table of Contents

Nomenclature

‘	feet
"	inch
<	less than
>	greater than
ac	acre
ac-ft	acre - feet
APN	County Assessor’s parcel number
ARC	antecedent runoff condition
BMPs	best management practices
C	Rational Method runoff coefficient
Caltrans	California Department of Transportation
CDMG	California Division of Mines & Geology
cfs	cubic feet per second
City	City of Oxnard
CMP	corrugated metal pipe
CN	SCS curve number
Cnl	open channel
Consult-ant	Diamond West Engineering, Inc.
County	County of Ventura
C_p	pan coefficient
d/s	downstream
DWR	California Department of Water Resources
E	evaporation
EGL	energy grade line
FEMA	Federal Emergency Management Agency
FIP	Finance and Implementation Plan
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
ft	feet
ft/s	feet per second
g	acceleration due to gravity
gpm	U.S. gallons per minute
gpd	U.S. gallons per day
gpd/ft^2	U.S. gallons per day per square foot
H	total hydraulic head
h	horizontal
HEC	Hydrologic Engineering Center
HEC-HMS	HEC-HMS Computer Program
HEC-RAS	HEC-RAS Computer Program
HGL	hydraulic grade line
hr	hour
i	rainfall intensity
i_a	initial abstraction
i.d.	inside diameter
imp	impervious
in	inch
L_o	overland flow path length
MAP	Mean annual precipitation
max	maximum
MEP	maximum extent practicable
mi	mile
min	minimum
misc	miscellaneous
msl	mean sea level
MWC	municipal water company
MWD	municipal water district
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
o.d.	outside diameter
O&M	Operations and maintenance
ped.	Pedestrian
Q	flow quantity
Qty	quantity
R.C.E.	California, Registered Civil Engineer
RCP	reinforced concrete pipe
req’d	required
RWQCB	California Regional Water Quality Control Board
s	second
SCS	Soil Conservation Service
sf	square feet
SQUIMP	County, Storm Water Quality Urban Impact Mitigation Management Plan
t_c	storm duration (time of concentration)
t_p	time from start of storm to peak runoff
t_r	rain storm duration
T	transmissivity
TR-20	SCS Technical Release Number 20
TR-55	SCS Technical Release Number 55
UMP	Urban Management Plan
u/s	upstream
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
V	volume
v	vertical
VCRAT	County, Modified Rational Method Hydrology Program
w.s.	water surface

Executive Summary

This Technical Appendix is being prepared based on information provided by the project applicant. Diamond West Engineering, Inc. (DWEI) does not warrant the accuracy or completeness of the information provided.

DWEI is providing qualitative findings, recommendations, and mitigation measures based on standard engineering practice.

The hydrologic and hydraulic information provided was not sufficient to analyze the impacts of the development on hydrology and storm water quality as they relate to the site plan improvements and terminal drainage facilities. Therefore, additional site plan changes may be required to obtain an approved tentative map so that the project can satisfy the mitigation measures contained herein and in the remainder of the EIR.

Hydrology and Water Quality

The following sections of this report evaluate the impacts of the proposed project on hydrology/drainage and water quality in the surrounding area. The discussion of hydrology and water quality impacts presented herein is based on the assumptions, calculations, and analysis contained in this report. The assessments and technical analysis presented herein are in compliance with the local drainage policies and requirements of the City of Oxnard, Los Angeles Regional Water Quality Control Board, County of Ventura, and the California Environmental Quality Act (CEQA) of 1970, as amended. The hydrology analysis and drainage assessments have been prepared at a preliminary engineering level based upon the details of the available information. Refer to the Biological Resources section of the EIR for a discussion of potential impacts and mitigation measures related to wetlands.

Environmental Setting

The purpose of this existing conditions evaluation is to establish a baseline for comparison of the pre-project and the post-project hydrologic conditions. Baseline conditions investigated include land use, hydrology, floodplain mapping, and surface water quality. On-site as well as upstream off-site areas are considered in the analysis.

The project is located near the northern edge of the City of Oxnard, and is bounded by Highway 101 on the north, Oxnard Boulevard to the east, the Southern Pacific Railroad to the south, and North Ventura Road to the west. The study area contains roughly 70 acres and is located entirely in the City. The existing land use in the study area contains residential, commercial, and industrial uses.

The existing utilities in the area are a water system, a gas distribution system, an electric service system, a sanitary sewer system, an inadequate storm drainage system, and a telephone/fiber optic system. There are production domestic water wells within one mile of the study area.

EXISTING WATERSHED CHARACT-ERISTICS

The study area consists of approximately 70 acres that was divided into 5 sub-basin watersheds. These watersheds are defined by the physical constraints and topographic features that exist and points of interest in the study area. The land uses within the study area consist of residential, industrial, and commercial zoning. The natural slopes within the sub-basin areas relatively flat. Most of the study area has a grade of less than 2%. The maximum elevation differential of the study area is about 10 feet from an elevation of 75 feet on the southeast end to 65 feet on the northwest end. The length of the study area is about 3,350 feet.

Storm water runoff generated from the study area generally drains northwesterly as overland flow and as concentrated flow. Concentrated flow generally occurs within the lower elevations. The overland flow from the sub-basins cascades down the respective low points. At each low point, the storm water either enters a drainage system, or is further conveyed through downstream sub-basins to the north and west.

The project area is currently developed with building and surface parking lots. Most of the site is covered with impermeable surfaces, except for the intermittent landscaping with parking lots and along building frontages.

The El Rio Drain, which is a County Watershed Protection District facility, is located on the west side of the Southern Pacific Railroad. This drain currently receives only about 5% of the runoff area from the project site. Based on reviewing available documents from the County, it is our opinion the El Rio Drain is currently undersized based on design standards and the existing tributary area.

For the most part, the remainder of the project site drains to P.D. 346, which is a City drainage facility. This drain is located on-site, adjacent to the Railroad, near the northwest corner of the mobile home park. This drain also uses the Santa Clara River as its terminal outlet.

Flood Insurance Study

The project area is located on the following FEMA FIRM.

City of Oxnard, California, community panel number 060417 0010 C, October 15, 1985. The project area is located in SFHA Zone A13, Zone B, and Zone C.

Zone C and Zone X are defined as areas of minimal flooding or outside the 500-year floodplain.

Zone B and Zone X500 are defined as areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. An area inundated by 0.2% annual chance flooding.

Zone A13 is defined as an area inundated by 1% annual chance flooding, for which BFEs have been determined.

Any construction in Zone A will require a Conditional Letter of Map Revision from FEMA prior to issuance of grading permits. A Letter of Map Revision will be required prior to building occupancy.

Native Soil Properties

The soil types within the study area were identified from the current County Hydrology Manual. Individual soil types are given unique values ranging from 1-7. There are four soil types within the study area: 3, 4, 5, and 7.

EXISTING GROUNDWATER CONDITIONS

The depth to the seasonal high groundwater table is assumed not high enough to be significant. Additional design requirements may be required if it is found to encroach on any new drainage infrastructure, appurtenances, or excavations.

HYDROLOGY

Hydrologic calculations to evaluate surface water runoff associated with the design storm events were performed for both off-site and on-site areas. These calculations were performed using the City of Oxnard Cook's Method. This hydrology method only produces peak runoff rates. It is not sufficient to perform time dependent, volumetric hydrologic analysis.

Hydrologic properties such as slope, length, soil type, vegetation, and land use were characterized for each sub-basin area.

Storm Water Quality

Storm water quality is a significant concern in California. The project's major downstream watercourse, Reach 1 of the Santa Clara River, is *not* listed on the 303(d) list of the Los Angeles Regional Water Quality Control Board. This 303(d) listing raises a significant concern for certain pollutant runoff from the site. There currently are no stormwater quality systems on-site.

This section discusses typical pollutants found in stormwater runoff and discusses the types of contaminants that may be found in existing stormwater runoff from the project site.

Significant Pollutants from 303(d) Listing

Under Section 303(d) of the 1972 Clean Water Act, areas are required to declare a list of water quality-limited segments. Watercourses on this list do not meet water quality standards, even after installing the minimum level of pollutant control technology on point sources, and must develop action plans, known as Total Maximum Daily Loads (TMDL) to improve water quality.

The project site is tributary to Reach 1 of the Santa Clara River (Highway 101 Bridge to Santa Clara River Estuary). This segment is not listed on the 303(d) list, but it is labeled as being impaired. The Board indicates that certain pollutants in this watershed include nitrate/nitrite, coming from point and non-point sources.

Non-Point Source Pollutants

A net effect of urbanization can be to increase pollutant export. However, an important consideration in evaluating stormwater quality from a project is to assess if it impairs the beneficial use of the receiving waters. Non-point source pollutants have been characterized by the following major categories in order to assist in determining the pertinent data and its uses. Receiving waters can assimilate a limited quantity of various constituent elements, however there are thresholds beyond which the measured amount becomes a pollutant and results in an undesirable impact. Background of these standard water quality categories provides an understanding of typical urbanization impacts.

Sediment - Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants including nutrients, tract metals, and hydrocarbons. Construction sites area typically the largest source of sediment for urban areas under development. Another major source of sediment is streambank erosion, which may be accelerated by increases in peak rates and volumes of runoff due to urbanization.

Nutrients - Nutrients are a major concern for surface water quality. Phosphorous and nitrogen area of special concern because they can cause algal blooms and excessive vegetative growth. Of these two, phosphorus is usually the limiting nutrient that controls the growth of algae in lakes. The orthophosphorous form of phosphorus is readily available for plant growth. The ammonium form of nitrogen can also have severe effects on surface water quality. The ammonium is converted to nitrate and nitrite forms of nitrogen in a process called nitrification. This process consumes large amounts of oxygen, which can impair the dissolved oxygen levels in water. The nitrate form of nitrogen is very soluble and is found naturally at low levels in water. When nitrogen fertilizer is applied to lawns or other areas in excess of plant needs, nitrates can leach below the root zone, eventually reaching ground water. Orthophosphate from auto emissions also contributes phosphorus in areas with heavy automobile traffic. As a general rule of thumb, nutrient export is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are surface algal scums, water discolorations, odors, toxic releases, and overgrowth of plants. Common measures for nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate, and total organic carbon (TOC).

Trace Metals - Trace metals are primarily a concern because of their toxic effects on aquatic life and their potential to contaminate drinking water supplies. The most common trace metals found in urban runoff are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment and this effectively reduces the level, which is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with the sediment settle out rapidly and accumulate on soils. Also, urban runoff events typically occur over a shorter duration, which reduces the amount of exposure, which could be toxic to the aquatic environment. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the threshold concentration levels for adverse effects increases.

Oxygen-Demanding Substances - Aquatic life is dependent on the dissolved oxygen (DO) in the water and when organic matter is consumed by microorganisms then DO is consumed in the process. A rainfall event can deposit large quantities of oxygen demanding substance in lakes and streams. The biochemical oxygen demand of typical urban runoff is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A problem from low DO results when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by direct measure of DO and indirect measures such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), oils and greases, and total organic carbon (TOC).

Bacteria - Bacteria levels in undiluted urban runoff exceed public health standards for water contact reception almost without exception. Studies have found that total coliform counts exceeded EPA water quality criteria at almost every site and almost every time it rained. The coliform bacteria that are detected may not be a health risk in themselves, but are often associated with human pathogens.

Oil and Grease - Oil and grease contain a wide variety of hydrocarbons some of which could be toxic to aquatic life in low concentrations. These materials initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly become absorbed by it. The major source of hydrocarbons in urban runoff is through leakage of crankcase oil and other lubricating agents from automobiles. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses generate less hydrocarbon export, although illegal disposal of waste oil into storm waters can be a local problem.

Other Toxic Chemicals - Priority pollutants are generally related to hazardous wastes or toxic chemicals and can be sometimes detected in storm water. Priority pollutant scans have been conducted in previous studies of urban runoff, which evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria. The urban runoff scans were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous wastes). Measures of priority pollutants in storm water include – phthalate (plasticizer compound), phenols and creosols (wood preservatives), pesticides and herbicides, oils and greases, and metals.

Physical Characteristics of Surface Water Quality

Standard parameters, which can assess the quality of storm water, provide a method of measuring impairment. A background of these typical characteristics assists in understanding water quality requirements. The quantity of a material in the environment and its characteristics determine the degree of availability as a pollutant in surface runoff. In an urban environment, the quantity of certain pollutants in the environment is a function of the intensity of the land use. For instance, a high density of automobile traffic makes a number of potential pollutants (such as lead and hydrocarbons) more available. The availability of a material, such as fertilizer, is a function of the quantity and the manner in which it is applied. Applying fertilizer in quantities that exceed plant needs leaves the excess nutrients available for loss to surface or ground water.

The physical properties and chemical constituents of water traditionally have served as the primary means for monitoring and evaluating water quality. Evaluating the condition of water through a water quality standard refers to its physical, chemical, or biological characteristics. Water quality parameters for storm water comprise a long list and are classified in many ways. In many cases, the concentration of an urban pollutant, rather than the annual load of that pollutant, is needed to assess a water quality problem. Some of the physical, chemical, or biological characteristics that evaluate the quality of the surface runoff are outlined below.

Dissolved Oxygen - Dissolved oxygen in the water has a pronounced effect on the aquatic organisms and the chemical reactions that occur. It is one of the most important biological water quality characteristics in the aquatic environment. The dissolved oxygen concentration of a water body is determined by the solubility of oxygen, which is inversely related to water temperature, pressure, and biological activity. Dissolved oxygen is a transient property that can fluctuate rapidly in time and space. Dissolved oxygen represents the status of the water system at a particular point and time of sampling. The decomposition of organic debris in water is a slow process and the resulting changes in oxygen status respond slowly also. The oxygen demand is an indication of the pollutant load and includes measurements of biochemical oxygen demand or chemical oxygen demand.

Biochemical Oxygen Demand (BOD) - The biochemical oxygen demand is an index of the oxygen-demanding properties of the biodegradable material in the water. Samples area taken from the field and incubated in the laboratory at 20°C, after which the residual dissolved oxygen is measured. The BOD value commonly referenced is the standard 5-day values. These values area useful in assessing stream pollution loads and for comparison purposes.

Chemical Oxygen Demand (COD) - The chemical oxygen demand is a measure of the pollutant loading in terms of complete chemical oxidation using strong oxidizing agents. It can be determined quickly because it does not rely on bacteriological actions as with BOD. COD does not necessarily provide a good index of oxygen demanding properties in natural waters.

Total Dissolved Solids (TDS) - TDS concentration is determined by evaporation of a filtered sample to obtain residue whose weight is divided by the sample volume. The TDS of natural waters varies widely. There are several reasons why TDS is an important indicator of water quality. Dissolved solids affect the ionic bonding strength related to other pollutants such as metals in water. TDS are also a major determinant of aquatic habitat. TDS affects saturation concentration of dissolved oxygen and influences the ability of a water body to assimilate wastes. Eutrophication rates depend on TDS.

pH - The pH of water is the negative log, base 10, of the hydrogen ion (H^+) activity. A pH of 7 is neutral; a pH greater than 7 indicates alkaline water; a pH less than 7 represents acidic water. In natural water, carbon dioxide reactions are some of the most important in establishing pH. The pH at any one time is an indication of the balance of chemical equilibrium in water and affects the availability of certain chemicals or nutrients in water for uptake by plants. The pH of water directly affects fish and other aquatic life and generally toxic limits are pH values less than 4.8 and greater than 9.2.

Alkalinity - Alkalinity is the opposite of acidity, representing the capacity of water to neutralize acid. Alkalinity is also linked to pH and is caused by the presence of carbonate, bicarbonate, and hydroxide, which are formed when carbon dioxide is dissolved. A high alkalinity is associated with a high pH and excessive solids. Most streams have alkalinities less than 200 mg/l and ranges of alkalinity of 100-200 mg/l seem to support well-diversified aquatic life.

Specific Conductance - The specific conductivity of water, or its ability to conduct an electric current, is related to the total dissolved ionic solids. Long term monitoring a project waters can develop a relationship between specific conductivity and TDS. Its measurement is quick and inexpensive and can be used to approximate TDS. Specific conductivities in excess of 2,000 μohms/cm indicate a TDS level too high for most freshwater fish.

Turbidity - The clarity of water is an important indicator of water quality that relates to the ability of photosynthetic light to penetrate. Turbidity is an indicator of the property of water that causes light to become scattered or absorbed. Suspended clays and other organic particles cause turbidity. It can be used as an indicator of certain water quality constituents such as predicting the sediment concentrations.

Nitrogen (N) - Sources of nitrogen in storm water area from the additions of organic matter to water bodies or chemical additions. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Excessive nitrogen can lead to eutrophication since nitrification consumes dissolved oxygen in the water. Nitrogen occurs in many forms. Organic nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. High concentrations of nitrate-nitrogen (N/N) in water can stimulate growth of algae and other aquatic plants, but if phosphorus (P) is present, only about 0.30 mg/l of nitrate-nitrogen is needed for algae blooms. Some fish life can be affected when nitrate-nitrogen exceeds 4.2 mg/l. There are a number of ways to measure the various forms of aquatic nitrogen. Typical measurements of nitrogen include Kjeldahl nitrogen (organic nitrogen plus ammonia); ammonia, nitrite plus nitrate; nitrite; and nitrogen in plants. The principal water quality criteria for nitrogen focus on nitrate and ammonia.

Phosphorus (P) - Phosphorus is an important component of organic matter. In many water bodies, phosphorus is the limiting nutrient that prevents additional biological activity from occurring. The origin of this constituent in urban storm water discharge is generally from fertilizers and other industrial products. Orthophosphate is soluble and is considered to be the only biologically available form of phosphorus. Since phosphorus strongly associates with solid particles and is a significant part of organic material, sediments influence concentration in water and are an important component of the phosphorus cycle in streams. The primary methods of measurement include detecting orthophosphate and total phosphorus.

Regulatory Framework

The federal Clean Water Act (CWA) and the California Ocean Plan are the primary mechanisms through which pollutant discharges are regulated in California. The CWA established minimum national water quality goals and created the National Pollutant Discharge Elimination System (NPDES) permit system to regulate the quality of discharged water. All dischargers must obtain NPDES permits. Beginning in 1991, all municipal and industrial stormwater runoff are also regulated under the NPDES system. Although the CWA has established 126 "priority contaminants (metals and organic chemicals), the California Ocean Plan has established effluent limitations for 21 of these pollutants.

The U.S. Environmental Protection Agency (EPA) is the primary Federal agency responsible for implementing the CWA. The Los Angeles Regional Water Quality Control Board (RWQCB) is the primary state agency responsible for implementing the CWA and the state's Porter-Cologne Water Quality Act within state waters. The RWQCB is also responsible for water quality regulation through its work in preparing and adopting the California Ocean Plan. Local agencies also have responsibility for managing wastewater discharges. All are required to meet criteria set forth in their NPDES permits, to monitor their discharges, and to submit monthly reports to the RWQCB and the EPA.

In addition to infrastructure deficiencies, the increasing volume of storm water runoff has become the major source of pollutants discharging into the Santa Clara River. As a co-permittee under the County National Pollutant Discharge Elimination System (NPDES), the City of Oxnard is obligated to implement a Storm Water Quality Urban Impact Mitigation Management Plan and Best Management Practice procedures to regulate and reduce urban runoff. As a result, the City requires all new construction to mitigate runoff to a storm event, equal to ¾" of rainfall within a consecutive 24-hour period.

Significance Threshold Criteria

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study. The Initial Study includes questions relating to hydrology, drainage, and flooding. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in the section. Accordingly, a project may create a significant environmental impact if one or more of the following occurs.

- ✓ 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;
- ✓ Modify a wash, channel creek or river;
- ✓ Substantially degrade water quality;
- ✓ Contaminate a public water supply;
- ✓ Change the rate of flow, currents, or the course and direction of surface water;
- ✓ Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems;
- ✓ Place within 100-year flood hazard area structures, which would impede or redirect flood flows;
- ✓ 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;
- ✓ Be inundated by seiche, tsunami, or mudflow;
- ✓ 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;
- ✓ Cause a significant environmentally harmful increase in the flow velocity or erosive volume of stormwater runoff; and/or
- ✓ Cause a significant and environmentally harmful increase in erosion of the project site or surrounding areas.

The purpose of the technical evaluation presented herein is to determine the impact the proposed development has on surface water drainage and stormwater quality within the watershed tributary to Reach 1 of the Santa Clara River. Standard practice dictates that should the analysis determine that the proposed project would significantly impact surface water drainage or stormwater quality, appropriate mitigation would be identified to minimize the project impacts to a level less than significant.

The Clean Water Act amendments of 1987 established a framework for regulating stormwater discharges from municipal, industrial, and construction activities under the NPDES program. The primary objectives of the municipal stormwater program requirements are to:

1. Effectively prohibit non-stormwater discharges, and
2. Reduce the discharge of pollutants from the stormwater conveyance system to the "Maximum Extent Practicable".

For the purposes of this analysis, impacts to stormwater quality would be considered significant if the project did not address stormwater pollution to the maximum extent practicable. Currently, however, there are no definitive water quality standards for individual pollutants. Therefore, impacts to stormwater quality would be considered significant if the project failed to meet the requirements of the Los Angeles Regional Water Quality Control Board and the City of Oxnard.

Such requirements for similar developments include the following:

1. Post-development peak storm discharge rates shall not exceed the estimated pre-development rate for developments where increased peak stormwater discharge rate would result in increased potential for downstream erosion.
2. Conserve natural areas by using cluster development, limiting clearing and grading of native vegetation, maximize trees and other vegetation, promote natural vegetation, and preserve riparian area and wetlands.
3. Minimize stormwater pollutants of concern by incorporating Best Management Practices (BMPs) or combinations of BMPs best suited to maximize the reduction of pollutant loadings in runoff to the maximum extent practicable.
4. Protect slopes and channels to decrease the potential for erosion and the subsequent impacts to stormwater runoff.
5. Provide storm drain system stenciling and signage.
6. Properly design outdoor material storage areas.
7. Properly design trash storage areas.
8. Provide proof of ongoing BMP maintenance.
9. Comply with SQUIMP standards for design of structural or treatment control BMPs.
10. Properly design loading/unloading dock areas.
11. Properly design repair/maintenance bays.
12. Properly design vehicle/equipment wash areas.

13. Design parking areas to reduce impervious land coverage in order to encourage the infiltration and treatment of runoff before it enters the storm drain system.

Impacts and Mitigation Measures

The following is an analysis of the proposed project conditions, which is compared to the existing conditions analysis, to determine impacts associated with development of the property. As mentioned previously, on-site and upstream off-site areas are considered in the analysis presented herein. Proposed conditions investigated include land use, assumed roadway drainage, hydrology, floodplain mapping, and surface water quality.

IMPACT HWQ-1 - QUANTITY OF RUNOFF

The proposed project would be expected to incrementally reduce the amount of impervious surfaces onsite, which would consequently result in a reduction in the amount of storm water runoff generated from existing conditions on-site. This is considered a less than significant impact.

The proposed project can use the El Rio Drain and the Santa Clara River as a terminal discharge outlet. This could have adverse impacts on these facilities and surrounding properties. This is considered a Class II, significant but mitigable, impact.

The existing land uses at the project site include some residential, commercial and office land uses, with significant portion of the site covered by impervious surfaces. The project would result in the replacement of the large expanses of surface parking areas into more residential areas, subterranean parking garages and the subsequent development of parks and more open space. Parks and open space would help reduce the volume of urban runoff that is generated by impermeable surfaces on the site. Therefore, the project would reduce offsite storm water flows over that generated by existing conditions, and would not adversely affect the local storm drain system.

Because the project would result in a substantial decrease in the surface runoff from site, and because the project would be required to comply with the City's Urban Runoff Ordinance, impacts related to the quantity of surface water runoff are considered less than significant.

Project impacts to site drainage are considered significant if the project would substantially alter the historic drainage pattern of the site or area, including the alteration of an existing watershed boundary or the course of a stream or a river, or substantially increase the rate or amount of runoff in a manner which would result in flooding on- or off-site areas; create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage infrastructure (including terminal outlet facilities), or provide substantial additional sources of polluted runoff.

Mitigation Measures. The following mitigation measures would reduce impacts related to the water quantity of surface runoff on receiving storm water infrastructure during project operation:

HWQ-1(a) A Drainage and Flood Control Improvement Plan shall be prepared by the project applicant. This plan shall be prepared by a California registered civil engineer and shall identify all required construction related and permanent drainage and flood control improvements necessary to comply with the City's and County's standard of "no net increase" in storm flow discharge rates into the El Rio Drain and the Santa Clara River. This analysis is required to document the existing and proposed runoff rates versus time. Not only should the peak runoff rate be the same or less than the existing, but the time of the peak rate should also be substantially the same. This plan should also identify the intended use of P.D. 346. This plan shall be prepared in consultation with the City Engineer and the Ventura County Watershed Protection District to facilitate required interagency coordination. The capacity, location, and size of all culverts, collection devices, conveyance facilities, energy dissipaters, detention basins, debris basins and related improvements shall be designed to the satisfaction of the City Engineer and the Ventura County Watershed Protection District. All necessary permits required to implement the Improvement Plan shall be obtained from the Ventura County Watershed Protection District prior to City issuance of a permit for mass grading. No grading permits shall be issued until the Drainage Plan is approved and construction related improvements are in place.

Significance After Mitigation. Implementation of these mitigation measures would reduce impacts related to water quantity of surface runoff to a less than significant level.

IMPACT HWQ-2 - QUALITY OF RUNOFF

Overall, the project is expected to generate fewer pollutants in water runoff than the current land uses on the site through the conversion of impervious surface parking lots to more residential uses, open space/parks and installing subterranean parking. This is considered an overall beneficial impact. However, the proposed project could still contribute urban pollutants (e.g., oil and grease) to runoff from newly designed, although relatively small, parking areas which could continue to adversely affect water quality offsite. In addition, the proposed park/open space areas could include the use of additional herbicides and fertilizers on the site, which could adversely impact water quality. This is considered a Class II, significant but mitigable, impact.

The current land uses onsite include extensive paved surface parking lots, which contribute to runoff of pollutants such as oil and grease. The conversion of surface parking lots to residential uses, subterranean parking garages and open space/park areas would ultimately reduce the existing potential for contaminated runoff from surface parking areas to the storm drain system. Therefore, long-term surface water quality of runoff from the project site would be expected to improve over existing conditions with the removal of these facilities and replacement with open space areas and associated landscaping. This is considered an overall beneficial effect of the project.

However, newly designed parking areas could result in continued runoff of parking-lot pollutants, such as oil and grease. In addition, the proposed could potentially increase the amount of fertilizers and herbicides in runoff that could potentially enter the Santa Clara River through the storm drain system. The addition of fertilizers, pesticides and other chemicals to the park has the potential to include higher than natural concentrations of trace metals, biodegradable wastes (which affect dissolved oxygen levels), and excessive major nutrients such as nitrogen and phosphorus. While recent advances in landscape irrigation techniques generally minimize the amount of water that deep percolates, return water losses are nonetheless estimated at 15% of applied water. This percolating water has the potential to carry any leachable materials from the ground surface to the underlying groundwater.

The proposed project would be required to comply with the City's Urban Runoff Ordinance, which outlines practices for all developments in the City and runoff control requirements for all new development. Good housekeeping practices include: (1) collection, storage, and minimization of urban runoff; (2) maintenance of equipment; (3) removal of debris; and (4) prohibition of the use of any pesticides and fungicides that are banned by the US Environmental Protection Agency. As part of the runoff control requirements for new developments, all new developments in the City must prepare an Storm Water Quality Urban Impact Mitigation Management Plan that must address one or more of the following goals: (1) maximization of permeable areas for infiltration of runoff; (2) maximization of the amount of runoff directed toward permeable areas or stored for reuse; and (3) removal of pollutants through installation of treatment control BMPs. Compliance with the City's Urban Runoff Ordinance would ensure that the project does not adversely affect offsite water quality.

In summary, the overall effect of the proposed project would be to ultimately reduce pollutants from surface parking lots that enter the storm drain system, resulting in an overall beneficial effect. However, because of the continued potential for adverse impacts to surface and groundwater quality due to the application of pesticides and fertilizers on the park, and from oil and grease from newly designed parking lots, mitigation is recommended to reduce these impacts to a level less than significant.

Mitigation Measures. The following mitigation measures would reduce impacts related to the water quality of surface runoff during project operation:

HWQ-2(a) The applicant shall construct oil and grease traps within catch basin(s) for any new surface parking lots in the project area. The catch basin(s) shall include a trap that prevents floatables from discharging with the drainage water.

HWQ-2(b) Where feasible, a biofilter, bioswale or bioretention area shall be designed and constructed for the park and new surface parking lots to allow for treatment of stormwater runoff from the site. Such system shall be designed by a registered civil engineer specializing in water quality or other qualified professional to ensure that retention is adequate to reduce concentrations of targeted pollutants. The biofilter, bioswale or bioretention area shall be depicted on grading and drainage plans and shall include a maintenance plan.

HWQ-2(c) The applicant shall submit a park maintenance plan to the City that limits the use of herbicides and inorganic fertilizers applied to the field to those quantities necessary to treat specific problems. The park maintenance plan shall include, but not be limited to: provisions for mechanical weed control to be used wherever and whenever possible as the first choice; determination of the probable cause of a disease problem and correction as necessary (i.e.: soil nutrient problems, irrigation, water quality, plant type, etc.) prior to chemical use; provisions that herbicides are to be used only when necessary to cure a problem and not as a preventative measure or as a regular, periodic application; and, guidelines for use of chemical forms that have a low potential for leaching from the site.

Significance After Mitigation. With implementation of the above mitigation measures, project impacts related to water quality runoff during project operation would be improved when compared to existing conditions.

IMPACT HWQ-3 - GROUNDWATER INTRUSION

During excavation for subterranean parking structures or utility improvements (including storm water impoundments), groundwater may be encountered. In addition, there is the potential for groundwater intrusion to occur over the life of the project in such structures and facilities. This is considered a Class II, significant but mitigable impact.

The depth of groundwater is unknown. If the bottom of any sub-grade parking lot or structure is within 40 feet from the groundwater table, there could also be a risk of liquefaction. According to the City, the project area is in an area where there has been a historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

The proposed project would replace surface parking lots with subterranean parking. Subterranean parking structures are anticipated to be three levels or less below grade. As the expected groundwater depth would be below the proposed depth of excavation for the two-three-level subterranean garages, it is not anticipated that excavation would encounter groundwater. However, it is possible that future groundwater levels may rise above the base of the parking structure excavation. The potential for intrusion of groundwater is considered a potentially significant impact. Further geotechnical investigation would be required to address the issue of potential groundwater and seawater intrusion.

Depth to groundwater, potential groundwater intrusion, and potential liquefaction are also addressed in the Geology section of the EIR. Refer to this section for applicable measures to groundwater as mitigation for this impact and include requirements for geotechnical reports and groundwater pumping.

Mitigation Measures. Refer to Geology section for mitigation measures.

Significance After Mitigation. Implementation of these mitigation measures would reduce impacts related to groundwater intrusion to a less than significant level.

IMPACT HWQ-4 - CONSTRUCTION-RELATED RUNOFF

Project construction would involve excavation and grading of onsite surface parking areas and new commercial and residential areas. This would potentially result in soil erosion and concrete residue, with temporary adverse impacts to surface water quality. This is considered a Class II, significant but mitigable impact.

Implementation of the proposed project would involve the development commercial buildings arranged around various landscaped, grassy courtyards and open space areas, and development of a park. The project would also result in the removal of large expanses of paved surface parking lots, replacing them with residential uses, subterranean parking structures and open space/park uses.

Excavation and grading associated with project construction could result in erosion of soils on- site and sedimentation, with consequent temporary impacts to surface water quality. The project would involve the removal of soil from the site for the construction of subterranean parking garages. This would likely necessitate temporary onsite storage of excavated soils. During grading and soil storage, there is a potential for soil migration off-site via wind and/or water erosion. In addition, concrete residue from demolition of surface parking lots could potentially migrate off-site and adversely impact water quality. This is considered a potentially significant impact.

The City requires standard erosion control practices to be implemented for all new construction in the City. Requirements of the ordinance include: the use of drainage controls such as down drains, detention ponds, filter berms, or infiltration pits; removal of any sediment tracked offsite within the same day that it is tracked; containment of polluted runoff onsite; use of plastic covering to minimize erosion from exposed areas; and restrictions on the washing of construction equipment.

Additionally, the applicant would be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for the construction site in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) and subject to the oversight of the Regional Water Quality Control Board. The SWPPP must include best management practices (BMPs) to reduce or eliminate erosion and sedimentation of material on the site, and must be available on the project site at all times. Implementation of these standard requirements would ensure that construction-related water quality impacts are less than significant.

Project landscaping would provide stabilization for the underlying soil. Therefore, operational activities are not expected to result in significant soil erosion.

Due to construction and associated earth moving there will be additional impacts to storm water quality. Construction of the proposed development has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers, sanitary wastes, fuel, and lubricants.

Mitigation Measures. The following mitigation measures would reduce impacts related to the construction-related water quality of surface runoff during project operation:

HWQ-4(a) The project developer shall prepare and submit a Notice of Intent to comply with the Construction General Permit to the State Water Resources Control Board.

HWQ-4(b) The project developer shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and erosion control plan per the requirements of the Construction General NPDES Permit.

HWQ-4(c) The project developer shall comply with construction and post-construction Best Management Practices (BMPs) required by the City as defined in the Storm Water Quality Urban Impact Mitigation Management Plan (SQUIMP).

Significance After Mitigation. Implementation of the recommended mitigation measures would reduce construction-related water quality impacts associated with excavation and grading to a less than significant level.

Cumulative Impacts

The development projects in the same watershed as the proposed project may impact watershed drainage, hydrology, and water quality. However, as part of the future environmental process associated with the development of each of the individual projects the impacts would be mitigated on-site in a manner similar to mitigation measures presented in this section to address project-specific impacts. Generally speaking, each individual project would be required to mitigate increased runoff from the project, comply with federal requirements, comply with the Storm Water Quality Urban Impact Mitigation Management Plan (SQUIMP), City Design Standards and City stormwater quality requirements for construction and post-construction BMPs. As such, impacts due to cumulative project development are considered less than significant.

Unavoidable Significant Impacts

All impacts related to hydrology/drainage and water quality would be reduced to a level less than significant with implementation of applicable mitigation measures. As such, no unavoidable significant impacts to hydrology/drainage and water quality would result.

Preliminary Drainage/Water Quality Report

for

The Village at Oxnard
Oxnard, CA

Located at
Wagon Wheel Rd &
Oxnard Blvd.

Prepared for:

DALYOWENSGROUP

Prepared by:

HUITT-ZOLLARS
Huitt-Zollars, Inc. Westlake Village
2535 Townsgate Road
Suite 101
Westlake Village, California 91361
Phone (805) 418-1802 Fax (805) 418-1819

Randy Chapman, PE Date: April 29, 2008

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Introduction

The Wagon Wheel project is an existing multiple-use site consisting of approximately 63 acres in the city of Oxnard, California. The site is fully developed, and contains a mobile home park, an ice skating rink, a bowling alley, a motel and restaurant, and various miscellaneous warehouses and businesses. This project proposes to convert the existing use to a new multi-family and commercial development consistent with the Historic Enhancement and Revitalization of Oxnard (HERO) project area goals and policies.

The project site is bounded by the 101 freeway to the northeast, Oxnard Boulevard to the east, Ventura Road to the west, and the Union Pacific Railroad to the southwest. The property is described as a portion of Subdivisions 9 and 10 of Ranch El Rio de Santa Clara O'la Colonia according to the partition maps filed in the Office of the County Clerk of Ventura County, California, in an action entitled "Thomas A. Scott, et al., Pltfs vs Rafael Gonzales, Defts".

Of the 63 acres onsite, the mobile home park utilizes 10 acres and the remaining area is divided amongst the remaining commercial and industrial uses. With the exception of the mobile home park, the bowling alley, and the ice skating rink, a majority of the remaining site is vacant and poorly maintained. Additionally, a majority of the site appears to sheet flow and is likely subject to flooding due to the lack of drainage facilities and the proximity of the Santa Clara River to the site. The site currently outfalls to the south and west through two apparent drains that appear to convey flow through the Union Pacific Railroad right-of-way and into the El Rio Drain. A portion of the site sheet flows to the west and bypasses the El Rio Drain to flow directly into the Santa Clara River.

Proposed development will significantly increase pervious onsite areas and will increase "effective perviousness" through the use of non-traditional natural and mechanical drainage systems and approved best management practices. Major storm drain runoff will be collected with storm drain inlets and pipes and natural systems, and will discharge allowable (meaning that downstream systems have capacity to handle site flows) quantities into the Santa Clara River. As the flow is naturally reduced by design and the flow is outletted directly into the Santa Clara River, the significant concern posed by the City and Ventura County Flood Control District is stormwater quality. The result of site development will be significantly improved downstream flow conditions, in both quantity and quality of stormwater flow.

References

a. "Modified Cook's Method for Stormwater Runoff Calculations", City of Oxnard Public Works Department, Standard Plan Plate #59.
b. "Ventura County Hydrology Manual", Ventura County Flood Control and Water Resources Department, Reprinted 1991.

Objectives

The purpose of this report is to approximate existing and proposed stormwater flow rates based on existing topography and proposed conceptual grading and development concepts. It is anticipated that the details of the drainage system design will change significantly between the approval of this report and final build-out of the site due to ever-changing NPDES requirements, possible changes to fully engineered schematic development plans, and Ventura County and City of Oxnard criteria. Therefore, this report is limited to providing a preliminary design concept to ensure project feasibility that will allow the project to be fully engineered and designed in a manner that is consistent with goals outlined by both the developer and the City of Oxnard.

Additionally, this report is intended to provide a backbone drainage design concept for the Wagon Wheel site. Many of the specific details of the interior tract design will be determined at the time of final design of specific lots and buildings. The backbone system will provide a means to drain the entire site to the Santa Clara River. This drainage concept will relieve pressure on the over-capacity El Rio Drain, and will provide flexibility for the site design.

Procedure

Per City of Oxnard criteria, the hydrology was calculated using the Modified Cook's Method as outlined in Sections 50 and 60 of the City of Oxnard's "Standard Plates and Design Criteria for Public Works Construction". Separate analyses were completed for each outfall point, and watersheds were labeled from "A" to "E" from the western edge of the site to the eastern edge. Significant infiltration, possible detention, and stormwater treatment is anticipated for this site. For future planning purposes, detention locations are shown on the attached map. Additionally, this report lays out various best management practices that will be considered for use onsite to ensure that stormwater quality meets local and regional criteria and goals.

Additionally, to ensure that drainage facilities are properly maintained, a funding mechanism will be set up to ensure that facilities are cared for in perpetuity. This will ensure that the natural and mechanical drainage facilities will be maintained and the site will be cleaned regularly.

Hydrology

The hydrology of the existing and the proposed projects was analyzed using the Modified Cook's Method. The proposed project changes 52 acres from commercial/industrial to residential. This shift to more residential use reduces the volume of site runoff. The 10-

year runoff is reduced from 92 cfs to 77 cfs, which is approximately a 16% reduction. Further reduction in runoff is anticipated given that various Best Management Practices will be utilized as part of site redevelopment.

The El Rio Drain is operating significantly overcapacity. As this is a regional problem requiring a well-considered approach, this project proposes to direct all on-site flow directly to the Santa Clara River as part of site development. This will eliminate all on-site flow draining into the El Rio Drain.

The existing site's drainage concept had flow draining into the El Rio Drain through existing connections. Due to the existing over-capacity status of the drain, the development proposes to drain directly into the Santa Clara River utilizing existing onsite drainage infrastructure located in the western portion of the site. Subsequent research has shown various possibilities for this connection. These are discussed as follows:

- **Connection to existing 48" storm drain:** A majority of the current site is currently tributary to an existing storm drain that runs along the southern portion of the project, and this appears to be the most logical place to connect. This is part of the city's P.D. – 346 project that appears to have been constructed at the same time as the ice rink, approved in 1980. This system is still relatively functional but would require cleaning of the pipe outlet to ensure proper drainage as well as a review of capacity and possible upsizing. As the connection is existing, environmental permitting would face minimal scrutiny as conditions will not be worsened based on the development's hydrologic impacts.

- **Connection and rehabilitation of overflow channel adjacent to railroad overpass**: This location provides several advantages from a design standpoint. The connection to the river is already in place, which will reduce environmental impacts to the channel and will likely make environmental permitting a less than significant issue. Challenges to this involve providing a design that functions effectively, as the overflow channel appears continuously silted up. By adding regular flows to this channel as an outlet to the Wagon Wheel site, the functionality of this channel may actually be improved due to self-cleaning.

- **New connection to Santa Clara River Channel:** This provides an excellent design option and provides a fair amount of flexibility for the channel outlet; however, the challenges associated with acquiring new environmental permits (Army Corps and Fish & Game 404/1602 permits) will potentially make this option bureaucratically challenging. The specific location for a new connection could be provided at a number of locations.

- **Connection to Existing CalTrans Drain:** This also provides a relatively simple and clean connection and appears feasible based on initial review of elevation; however, various challenges would arise in coordinating with CalTrans, and the drains were likely sized not anticipating increased flow from the Wagon Wheel site. This may imply additional drainage facilities being required, which would involve significant environmental permitting concerns.

In discussion with the City of Oxnard, the proposed discharge point (being the river in this case) needs to have adequate capacity to handle the ultimate outflow from the project site. Additionally, the project must treat the discharge to current NPDES standards. These will be dictated by the SQUIMP in effect at the time of formal Tentative and/or Final Map submittals governed by the Regional Water Quality Control Board of the state. At this time, detention is not required given the reduction in site drainage upon site development. Based on the reduction of flow and progressive treatment onsite, the project will significantly improve flow conditions in the area and offsite in the surrounding area. As the new SQUIMP is updated and revised, project requirements may change and additional drainage improvements may be required. All parties involved are aware of these implications.

Per City of Oxnard criteria, commercial and industrial applications utilize a "C"-factor of 70. Residential applications utilize a "C"-factor of 60. For the purposes of this report, the "C"-factor of 70 was used for the existing site, and a "C"-factor of 65 was used for the proposed development. Each of these numbers provide for a conservative design. In the case of the existing development, the site is nearly 100% impervious. The only pervious areas are located sporadically throughout the mobile home park, and many of these areas are covered by vehicles or debris, which increases the "effective imperviousness". In the case of the proposed development, a higher "C"-value was used to mitigate the increased density of structures. The effective imperviousness will be drastically reduced by the use of infiltration swales, possible underground detention/retention systems, and pervious pavement in large parking areas. Thus, it can be assumed that the 16% reduction in flow is a lower limit on what will actually occur as the design progresses. This reduction will also meet and exceed the California Regional Water Quality Control Board's current directive to maintain or reduce the runoff flow rate and volume from a 2-year storm.

Flooding of Ventura Road has been and continues to be an issue of major concern for the City of Oxnard. While the proposed development will not exacerbate this concern, the city has looked to the developer to help solve some of the flooding issues. The approach for this regional issue needs to be two-pronged. The ultimate solution for this condition will be a levee similar to that on the north side of the 101 Freeway that will protect the entire east bank from river flooding; however, this will involve numerous players, including adjacent property owners, FEMA, the County of Ventura, and regulatory approval agencies. The developer of the Wagon Wheel site is willing to entertain discussion of participation in such an arrangement; however, this large-scale facility is beyond the scope and influence of this project.

Until such time that this facility is built, the developer of the Wagon Wheel site is willing to provide interim solutions to "minor storm" flooding. The following mitigation measures are solutions that may provide limited improvements in this area:

- Flapgates at the project outlet to prevent backwater effects from Santa Clara River flows from impacting the project site.

- Pumping of low-point flows back into the main river channel to more quickly drain flooded areas.

- Redirection of El Rio Drain overflows downstream through improvements to the overflow structure.

- Direction of onsite flows downstream to direct water away from the project.

As can be seen, various steps can be taken relatively easily to mitigate some of this concern until such time that the ultimate levee facility can be built.

Computations

The hydrology of the existing and the proposed projects were analyzed using the Modified Cooks Method. The calculations are attached at the end of this report. Existing and proposed topography naturally divide the project site into five subareas each. The attached maps demonstrate flow lengths and elevations used in the calculations.

The storm drain layout was used to determine flow length; however, the storm drain is only laid out conceptually at this phase and is subject to significant change. It is not anticipated that the storm drain layout will vary enough to drastically change proposed drainage patterns, however.

Backup calculations were also performed using the Ventura County Rational Method program (VCRAT) for acceptance to county-maintained facilities. As the methodology for this is different, the overall results are also slightly different. Overall; however, the resulting flow into the El Rio drain is eliminated and overall site peak flow and volumes are reduced.

Stormwater Quality

In order to satisfy existing and potential stormwater quality criteria, significant natural and mechanical treatment measures are proposed for this project. Surface water will drain across as many natural areas as feasible prior to entering impervious roadways. Various sump locations will be provided onsite to encourage additional percolation. Additionally, pervious paving and pervious retention systems will be incorporated to allow percolation in traditionally impervious systems (such as parking lots). These are partially outlined in the Best Management Practices outlined below. It should be noted that designs will evolve as more detailed plans are developed for the project, and many additional non-BMP treatments will be creatively proposed for this site.

- Pervious Pavements (SD-20): Proposed use in parking areas and potentially in other areas where drainage will collect in sumps that will justify their use.

- Infiltration Basins (TC-11): Potential use in grassy open space areas throughout the site. Concept may have to be modified somewhat to adjust for intricacies of the specific site and areas.

- Vegetated Swales (TC-30): Proposed use in medians along main collector road. Additional use in swales draining building areas.

- Vegetated Buffer Strip (TC-31): Potential limited use in areas fronting main collector road, depending on final roadway cross-section.

- Bioretention (TC-32): Potential use in and around building areas. Will require coordination with landscape architect and landscape plan.

- Vortex Separator (MP-51): Likely use at all storm drain outfalls, to be combined with additional BMPs upstream.

Currently the site is poorly maintained, so development of the proposed project should improve the quality of the runoff significantly.

As an overall concept, the final Stormwater Quality design, concurrent with City desires, will involve pre-treatment devices upstream of any infiltration-based treatment structures to reduce the chances of infiltration/plugging. Typical treatment devices in this situation include Contech CDS and Contech Vortechnics units. These are units that treat to a lesser degree than the StormFilter units; however, the infiltration aspect will generate the remaining treatment to meet NPDES standards. In addition, pursuant to current city policies and proposed permit requirements, Low Impact Development criteria are to be considered for this project. The developer and the City have agreed in concept to a number of these items and they are more fully addressed in the Specific Plan.

Results/Conclusions

As demonstrated herein and justified in the calculations of this report, the proposed use of the Wagon Wheel site will significantly enhance the quality and reduce the quantity of stormwater draining offsite. The current site is poorly maintained, unattractive, and underutilized. The proposed development will provide an attractive, useful, and well-maintained site.

The El Rio Drain is currently operating beyond its intended capacity. As a result, this development cannot increase flow to this channel. Currently, Area "E" is the only onsite area that is tributary to the channel. In the existing state, 13.3 cfs of flow drains to the channel. Future development will eliminate this onsite flow contribution. The diversion of flow into the river will not create issues, as all flow reaches the Santa Clara River adjacent to the site, and any site impacts to the small stretch affected are negligible.

Per the VCRAT calculations, currently 61 acres drain approximately 146 cfs to the Santa Clara River (per City of Oxnard 50-year calculations). When complete, the project proposes to direct the entire site to the Santa Clara River, ultimately discharging the same or less quantity of flow as currently exists (calculated as 132 cfs per the City of Oxnard 50-year calculations), to the Santa Clara River. These are raw numbers that do not account for BMP implementation. The reductions proposed will be considerably more significant.

The ultimate development will also seek to mitigate flooding concerns along Ventura Road. While the ultimate solution will be a regional solution likely involving construction of a levee, steps will be taken in the interim to attempt to make the persistent flooding of this area less of a concern.

Attachments:

1. Supporting City of Oxnard Hydrology Criteria
2. Oxnard Cook's Method Existing Condition Calculations
3. Oxnard Cook's Method Proposed Condition Calculations
4. Summary of Oxnard Hydrologic Calculations
5. Ventura County VCRAT Time of Concentration Calculations
6. Ventura County VCRAT Existing Condition Calculations
7. Ventura County VCRAT Proposed Condition Calculations
8. Drainage Exhibits
    a. Existing Hydrology
    b. Proposed Hydrology
    c. Proposed Water Quality concept

Attachment 1:
Supporting City of Oxnard Criteria

MODIFIED RATIONAL FORMULA

" C " FACTORS*

ITEMS	RUNOFF PRODUCING CHARACTERISTICS			
RELIEF	40 Steep, slopes exceed 30%	30 Hilly, slopes 10% to 30%	20 Rolling, slopes 5% to 10%	10 Flat, slopes 0 to 5%
SURFACE STORAGE	20 Negligible, surface depressions few and shallow. Drainageways steep & small, no ponds or marshes.	15 Low, well defined system of small drainageways, no ponds or marshes.	10 Normal, considerable surface depression storage, lakes and ponds less than 2% of drainage area.	5 High, surface depression storage high, drainage system not sharply defined.
SOIL	20 Rock or thin soil mantle. Negligible infiltration capacity.	15 Clay or other soil of low infiltration capacity.	10 Normal, deep permeable soils.	5 High, sands, loamy sands & other loose open soils.
SCS CLASS	D	C	B	A
VEGETAL COVER	20 No effective soil cover, bare or very sparse cover.	15 Clean cultivated crops or poor natural cover, less than 10% of drainage area under good cover.	10 50% of drainage area in good grassland or woodland, 50% of area in clean cultivated crops.	5 About 90% of drainage area in good grassland woodland or equivalent cover.

" C " FACTOR
(FOR CITY OF OXNARD)

C = 40 - 45	FOR UNDEVELOPED
C = 60	FOR RESIDENTIAL
C = 70	FOR COMMERCIAL AND INDUSTRIAL

NOTE:

In hydrologic Calculations, use values of "C" given in lower table.
Use of values of "C" given in upper table have to be approved by the City Engineer.

REV. | APPR BY | DATE

CITY OF Oxnard

GENERAL REQUIREMENTS – DRAINAGE

DRAWN SOHER | ENG. Jay Pfalil | APPR. BY Benjamin Y. Wong

Public Works Department

STANDARD PLAN

PLATE 60

SHEET OF

FREQUENCY FACTORS – %

RETURN FREQUENCY	RETURN PERIOD	FACTOR
50%	2	25
20%	5	65
10%	10	100
4%	25	135
2%	50	170
1%	100	200
0.1%	1,000	400

RAINFALL INTENSITY CORRECTION FACTOR

OXNARD AREA = 123%

SHAPE CORRECTION FACTORS – %

L/W \ AREA	0.01 S.M.	0.1 S.M.	1 S.M.	10 S.M.	100 S.M.	1,000 S.M.
1	115	125	132	141	154	172
1.5	112	115	119	124	131	141
2	108	110	110	113	117	122
3	100	100	100	100	100	100
4	98	95	94	91	89	86
5 or greater	95	91	88	85	82	78

1 S.M. = 1 Square Mile = 640 Acres | Just for information only

REV. APPR. BY DATE

CITY OF Oxnard

GENERAL REQUIREMENTS – DRAINAGE

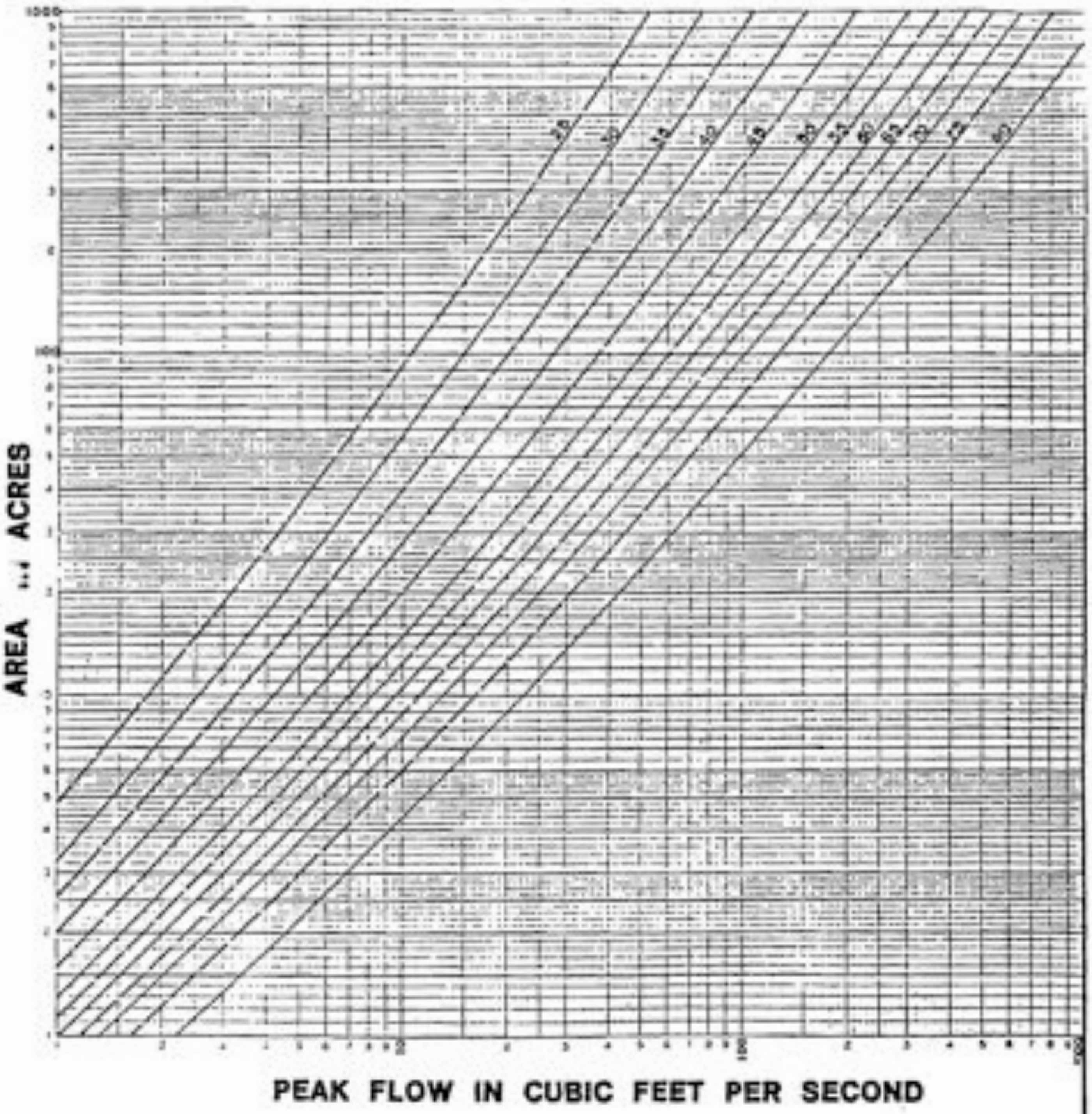
DRAWN SCUED CKD Guy Polel APPR. BY Benjamin Y. Wong

Public Works Department

STANDARD PLAN

PLATE 61

SHEET OF



CITY OF Oxnard

GENERAL REQUIREMENTS – DRAINAGE

DRAWN SOHER	CKD	APPR. BY	STANDARD PLAN
Public Works Department			PLATE 62
			SHEET OF

Attachment 2:

Oxnard Cook's Method Existing Condition Calculations

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	A			Designed	RC	Date	3/23/2007
Concentration Point	MHP			Checked		Date	

Watershed Constants:

Drainage Area	2.5018	Acres					
Length	603	feet	Fall	12	feet	Slope	1.99%
Width	= (Area x 43560)/Length =		180.7	feet			
Length/Width	3.34	Shape Correction Factor	100%				
Soil Type	"B" assumed	RI Correction Factor	123%				

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	45	0%	0%
Residential	60	0%	0%
Commercial/Ind.	70	100%	100%

Runoff: Q (curve) =	3.3	cfs
x L/W factor	3.3	cfs
x RI Correc. Factor	4.1	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	2.6	cfs
10% (10 year)	100%	4.1	cfs
4% (25 year)	135%	5.5	cfs
2% (50 year)	170%	6.9	cfs
1% (100 year)	200%	8.1	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	B		Designed	RC	Date	3/23/2007	
Concentration Point	MHP		Checked		Date		

Watershed Constants:

Drainage Area	6.2745	Acres					
Length	739	feet	Fall	6	feet	Slope	0.81%
Width	= (Area x 43560)/Length =		369.8	feet			
Length/Width	2.00	Shape Correction Factor		108%			
Soil Type	"B" assumed	RI Correction Factor		123%			

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	45	0%	0%
Residential	60	0%	0%
Commercial/Ind.	70	100%	100%

Runoff: Q (curve) =	8.7	cfs
x L/W factor	9.4	cfs
x RI Correc. Factor	11.6	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	7.5	cfs
10% (10 year)	100%	11.6	cfs
4% (25 year)	135%	15.6	cfs
2% (50 year)	170%	19.6	cfs
1% (100 year)	200%	23.1	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	C			Designed	RC	Date	3/23/2007
Concentration Point	MHP			Checked		Date	

Watershed Constants:

Drainage Area	4.8817	Acres					
Length	650	feet	Fall	4	feet	Slope	0.62%
Width	= (Area x 43560)/Length =		327.1	feet			
Length/Width	1.99	Shape Correction Factor		108%			
Soil Type	"B" assumed	RI Correction Factor		123%			

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	45	0%	0%
Residential	60	0%	0%
Commercial/Ind.	70	100%	100%

Runoff: Q (curve) =	6.5	cfs
x L/W factor	7.0	cfs
x RI Correc. Factor	8.6	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	5.6	cfs
10% (10 year)	100%	8.6	cfs
4% (25 year)	135%	11.7	cfs
2% (50 year)	170%	14.7	cfs
1% (100 year)	200%	17.3	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	D		Designed	RC	Date	3/23/2007	
Concentration Point	MHP		Checked		Date		

Watershed Constants:

Drainage Area	46.94	Acres					
Length	2415	feet	Fall	7	feet	Slope	0.29%
Width	= (Area x 43560)/Length =		846.7	feet			
Length/Width	2.85	Shape Correction Factor		100%			
Soil Type	"B" assumed	RI Correction Factor		123%			

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	45	0%	0%
Residential	60	0%	0%
Commercial/Ind.	70	100%	100%

Runoff: Q (curve) =	50	cfs
x L/W factor	50	cfs
x RI Correc. Factor	62	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	40	cfs
10% (10 year)	100%	62	cfs
4% (25 year)	135%	83	cfs
2% (50 year)	170%	105	cfs
1% (100 year)	200%	123	cfs

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1
Watershed	E	Designed	RC	Date	3/23/2007
Concentration Point	SE Corner	Checked		Date	

Watershed Constants:

Drainage Area	3.5675	Acres					
Length	600	feet	Fall	6.5	feet	Slope	1.08%
Width	= (Area x 43560)/Length =		259.0	feet			
Length/Width	2.32	Shape Correction Factor	108%				
Soil Type	"B" assumed	RI Correction Factor	123%				

Computation of "C"

Type of Development	"C" Factor	Present	Future
Undeveloped	45	0%	0%
Residential	60	0%	0%
Commercial/Ind.	70	100%	100%

Runoff: Q (curve) =	5	cfs
x L/W factor	5.4	cfs
x RI Correc. Factor	6.6	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	4.3	cfs
10% (10 year)	100%	6.6	cfs
4% (25 year)	135%	9.0	cfs
2% (50 year)	170%	11.3	cfs
1% (100 year)	200%	13.3	cfs

Attachment 3:

Oxnard Cook's Method Proposed Condition Calculations

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	A		Designed	RC	Date	3/23/2007	
Concentration Point	SE Corner		Checked		Date		

Watershed Constants:

Drainage Area	25.0684	Acres					
Length	2102	feet	Fall	7	feet	Slope	0.33%
Width	= (Area x 43560)/Length =		519.5	feet			
Length/Width	4.05	Shape Correction Factor		98%			
Soil Type	"B" assumed	RI Correction Factor		123%			

Computation of "C"

Type of Development	"C" Factor	Present	Future	
Undeveloped	45	0%	0%	
Residential	60	0%	0%	--> Use 65
Commercial/Ind.	70	100%	100%	

Runoff: Q (curve) =	26.0	cfs
x L/W factor	25.5	cfs
x RI Correc. Factor	31.3	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	20.4	cfs
10% (10 year)	100%	31.3	cfs
4% (25 year)	135%	42.3	cfs
2% (50 year)	170%	53.3	cfs
1% (100 year)	200%	62.7	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	B		Designed	RC	Date	3/23/2007	
Concentration Point	SE Corner		Checked		Date		

Watershed Constants:

Drainage Area	23.9539	Acres					
Length	2643	feet	Fall	5	feet	Slope	0.19%
Width	= (Area x 43560)/Length =		394.8	feet			
Length/Width	6.69	Shape Correction Factor	95%				
Soil Type	"B" assumed	RI Correction Factor	123%				

Computation of "C"

Type of Development	"C" Factor	Present	Future	
Undeveloped	45	0%	0%	
Residential	60	0%	0%	--> Use 65
Commercial/Ind.	70	100%	100%	

Runoff: Q (curve) =	25.0	cfs
x L/W factor	23.8	cfs
x RI Correc. Factor	29.2	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	19.0	cfs
10% (10 year)	100%	29.2	cfs
4% (25 year)	135%	39.4	cfs
2% (50 year)	170%	49.7	cfs
1% (100 year)	200%	58.4	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	C			Designed	RC	Date	3/23/2007
Concentration Point	SE Corner			Checked		Date	

Watershed Constants:

Drainage Area	1.335	Acres					
Length	440	feet	Fall	2	feet	Slope	0.45%
Width	= (Area x 43560)/Length =		132.2	feet			
Length/Width	3.33	Shape Correction Factor		100%			
Soil Type	"B" assumed	RI Correction Factor		123%			

Computation of "C"

Type of Development	"C" Factor	Present	Future	
Undeveloped	45	0%	0%	
Residential	60	0%	0%	--> Use 65
Commercial/Ind.	70	100%	100%	

Runoff: Q (curve) =	1.5	cfs
x L/W factor	1.5	cfs
x RI Correc. Factor	1.8	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	1.2	cfs
10% (10 year)	100%	1.8	cfs
4% (25 year)	135%	2.5	cfs
2% (50 year)	170%	3.1	cfs
1% (100 year)	200%	3.7	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	D		Designed	RC	Date	3/23/2007	
Concentration Point	SE Corner		Checked		Date		

Watershed Constants:

Drainage Area	8.5674	Acres					
Length	1105	feet	Fall	3	feet	Slope	0.27%
Width	= (Area x 43560)/Length =		337.7	feet			
Length/Width	3.27	Shape Correction Factor	100%				
Soil Type	"B" assumed	RI Correction Factor	123%				

Computation of "C"

Type of Development	"C" Factor	Present	Future	
Undeveloped	45	0%	0%	
Residential	60	0%	0%	--> Use 65
Commercial/Ind.	70	100%	100%	

Runoff: Q (curve) =	10.0	cfs
x L/W factor	10.0	cfs
x RI Correc. Factor	12.3	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	8.0	cfs
10% (10 year)	100%	12.3	cfs
4% (25 year)	135%	16.6	cfs
2% (50 year)	170%	20.9	cfs
1% (100 year)	200%	24.6	cfs

Huitt-Zollars, Inc.
Cook's Method Calculations

March 23, 2007

Project	Wagon Wheel	Job No	19-0024-01	Sheet	1 of 1		
Watershed	E		Designed	RC	Date	3/23/2007	
Concentration Point	SE Corner		Checked		Date		

Watershed Constants:

Drainage Area	2.0429	Acres					
Length	664	feet	Fall	3	feet	Slope	0.45%
Width	= (Area x 43560)/Length =		134.0	feet			
Length/Width	4.95	Shape Correction Factor		95%			
Soil Type	"B" assumed	RI Correction Factor		123%			

Computation of "C"

Type of Development	"C" Factor	Present	Future	
Undeveloped	45	0%	0%	
Residential	60	0%	0%	--> Use 65
Commercial/Ind.	70	100%	100%	

Runoff: Q (curve) =	2.3	cfs
x L/W factor	2.2	cfs
x RI Correc. Factor	2.7	cfs

Frequency	Freq. Factor	Q	
20% (5 year)	65%	1.7	cfs
10% (10 year)	100%	2.7	cfs
4% (25 year)	135%	3.6	cfs
2% (50 year)	170%	4.6	cfs
1% (100 year)	200%	5.4	cfs

<u>Attachment 4:</u>
Summary of Oxnard Cook's Method Calculations

March 23, 2007

Huitt-Zollars, Inc.
Drainage Calculation Summary

Drainage Area	Existing Q_5 (cfs)	Existing Q_{10} (cfs)	Existing Q_{25} (cfs)	Existing Q_{50} (cfs)	Existing Q_{100} (cfs)	Proposed Q_5 (cfs)	Proposed Q_{10} (cfs)	Proposed Q_{25} (cfs)	Proposed Q_{50} (cfs)	Proposed Q_{100} (cfs)
A	2.6	4.1	5.5	6.9	8.1	20.4	31.3	42.3	53.3	62.7
B	7.5	11.6	15.6	19.6	23.1	19.0	29.2	39.4	49.7	58.4
C	5.6	8.6	11.7	14.7	17.3	1.2	1.8	2.5	3.1	3.7
D	40.0	61.5	83.0	104.6	123.0	8.0	12.3	16.6	20.9	24.6
E	4.3	6.6	9.0	11.3	13.3	1.7	2.7	3.6	4.6	5.4
Total	**60.1**	**92.4**	**124.7**	**157.1**	**184.8**	**50.3**	**77.4**	**104.5**	**131.6**	**154.8**

	Decrease in Flow	
Q_5	9.8	cfs
Q_{10}	15.0	cfs
Q_{25}	20.3	cfs
Q_{50}	25.5	cfs
Q_{100}	30.0	cfs

Attachment 5:
Ventura County VCRAT Time of Concentration Calculations

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION **EXISTING CONDITIONS**
TC Program Version: 1.0.2007.2
Project: Village at Oxnard
Date: 12:00:00 AM
Engineer: Randy Chapman
Consultant: Huitt-Zollars Inc

Watershed Name: SC River

Sub-Area Name: 1A
Tc: 5.986 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 5.986 min. = 6 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 8.7
Flood Zone: 2
Rainfall Zone: K
Storm Frequency (years): 50
Development Type: Commercial
Soil Type: 4.00
Percent Impervious: 95
SUB AREA OUTPUT

Intensity (in/hr): 4.100
C Total: 0.941
Sum Q Segments (cfs): 33.57
Q Total (cfs): 33.57
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 359.15
Time of Concentration (min): 5.986

DATA FOR FLOW PATH 1

Flow Path Name: Overland
FLOW PATH TRAVEL TIME (min): 1.3333
Flow Type: Overland
Length (ft): 80
Top Elevation (ft): 68.2
Bottom Elevation (ft): 68.1
Contributing Area (acres): 0.05
Percent of Sub-Area (%): 0.6
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0013
Effective Slope: 0.0013
Q for Flow Path (cfs): 0.19
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Street

FLOW PATH TRAVEL TIME (min): 4.6525
Flow Type: Street
Length (ft): 1100
Top Elevation (ft): 68.1
Bottom Elevation (ft): 56
Contributing Area (acres): 8.65
Percent of Sub-Area (%): 99.4
Street Width (ft): 32
Curb Height (in): 6
Map Slope: 0.0110
Q for Flow Path (cfs): 33.38
Q Top (cfs): 0.19
Q Bottom (cfs): 33.57
Velocity Top (ft/s): 1.13
Velocity Bottom (ft/s): 4.13
Avg Velocity (ft/s): 2.63
Wave Velocity (ft/s): 3.94
Watershed Name: El Rio Drain

Sub-Area Name: 2B
Tc: 16.619 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 16.619 min. = 17 min.

SUB AREA INPUT DATA

Sub Area Name: 2B
Total Area (ac): 47.04
Flood Zone: 2
Rainfall Zone: K
Storm Frequency (years): 50
Development Type: Commercial
Soil Type: 4.00
Percent Impervious: 95
SUB AREA OUTPUT

Intensity (in/hr): 2.471
C Total: 0.937
Sum Q Segments (cfs): 108.89
Q Total (cfs): 108.89
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 997.13
Time of Concentration (min): 16.619

DATA FOR FLOW PATH 1

Flow Path Name: Overland
FLOW PATH TRAVEL TIME (min): 3.3333
Flow Type: Overland
Length (ft): 200
Top Elevation (ft): 74.1
Bottom Elevation (ft): 72.8
Contributing Area (acres): 0.1
Percent of Sub-Area (%): 0.2
Overland Type: Valley
Development Type: Commercial

Map Slope: 0.0065
Effective Slope: 0.0065
Q for Flow Path (cfs): 0.23
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Street
FLOW PATH TRAVEL TIME (min): 13.2855
Flow Type: Street
Length (ft): 2500
Top Elevation (ft): 73.8
Bottom Elevation (ft): 66
Contributing Area (acres): 46.94
Percent of Sub-Area (%): 99.8
Street Width (ft): 32
Curb Height (in): 6
Map Slope: 0.0031
Q for Flow Path (cfs): 108.66
Q Top (cfs): 0.23
Q Bottom (cfs): 108.89
Velocity Top (ft/s): 0.73
Velocity Bottom (ft/s): 3.45
Avg Velocity (ft/s): 2.09
Wave Velocity (ft/s): 3.14

Project: Village at Oxnard
Date: 12:00:00 AM
Engineer: Randy Chapman
Consultant: Huitt-Zollars Inc

Sub-Area Name: 3B
Tc: 6.356 Minutes
DATA FOR SUB AREA 2

SUB AREA TIME OF CONCENTRATION: 6.356 min. = 6 min.

SUB AREA INPUT DATA

Sub Area Name: 3B
Total Area (ac): 5.1
Flood Zone: 2
Rainfall Zone: K
Storm Frequency (years): 50
Development Type: Commercial
Soil Type: 4.00
Percent Impervious: 95
SUB AREA OUTPUT

Intensity (in/hr): 4.100
C Total: 0.941
Sum Q Segments (cfs): 19.68
Q Total (cfs): 19.68
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 381.36
Time of Concentration (min): 6.356

DATA FOR FLOW PATH 1

Flow Path Name: Overland
FLOW PATH TRAVEL TIME (min): 3.3333
Flow Type: Overland
Length (ft): 200
Top Elevation (ft): 69.8
Bottom Elevation (ft): 68.5
Contributing Area (acres): 0.1
Percent of Sub-Area (%): 2.0
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0065
Effective Slope: 0.0065
Q for Flow Path (cfs): 0.39
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Street
FLOW PATH TRAVEL TIME (min): 3.0226
Flow Type: Street
Length (ft): 500
Top Elevation (ft): 68.5

Bottom Elevation (ft): 66
Contributing Area (acres): 5
Percent of Sub-Area (%): 98.0
Street Width (ft): 32
Curb Height (in): 6
Map Slope: 0.0050
Q for Flow Path (cfs): 19.29
Q Top (cfs): 0.39
Q Bottom (cfs): 19.68
Velocity Top (ft/s): 1.00
Velocity Bottom (ft/s): 2.68
Avg Velocity (ft/s): 1.84
Wave Velocity (ft/s): 2.76

VENTURA COUNTY WATERSHED PROTECTION DISTRICT
TIME OF CONCENTRATION **PROPOSED CONDITIONS**
TC Program Version: 1.0.2007.2
Project: Village at Oxnard
Date: 12:00:00 AM
Engineer: Randy Chapman
Consultant: Huitt-Zollars Inc

Watershed Name: Watershed A

Sub-Area Name: 1A
Tc: 7.876 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 7.876 min. = 8 min.

SUB AREA INPUT DATA

Sub Area Name: 1A
Total Area (ac): 23.5
Flood Zone: 2
Rainfall Zone: K
Storm Frequency (years): 50
Development Type: Commercial
Soil Type: 4.00
Percent Impervious: 65
SUB AREA OUTPUT

Intensity (in/hr): 3.525
C Total: 0.881
Sum Q Segments (cfs): 72.98
Q Total (cfs): 72.98
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 472.58
Time of Concentration (min): 7.876

DATA FOR FLOW PATH 1

Flow Path Name: Overland
FLOW PATH TRAVEL TIME (min): 1.3333
Flow Type: Overland
Length (ft): 80
Top Elevation (ft): 110
Bottom Elevation (ft): 109.6
Contributing Area (acres): 0.05
Percent of Sub-Area (%): 0.2
Overland Type: Valley
Development Type: Commercial
Map Slope: 0.0050
Effective Slope: 0.0050
Q for Flow Path (cfs): 0.16
Avg Velocity (ft/s): 1.00
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Swale

FLOW PATH TRAVEL TIME (min): 3.0881
Flow Type: Channel
Length (ft): 200
Top Elevation (ft): 109.6
Bottom Elevation (ft): 108.8
Contributing Area (acres): 0.5
Percent of Sub-Area (%): 2.1
Bottom Width (ft): 10
Side Slope (H:V): 3
Manning's N: 0.03
Map Slope: 0.0040
Q for Flow Path (cfs): 1.55
Q Top (cfs): 0.16
Q Bottom (cfs): 1.71
Velocity Top (ft/s): 0.37
Velocity Bottom (ft/s): 0.94
Avg Velocity (ft/s): 0.65
Wave Velocity (ft/s): 1.08

DATA FOR FLOW PATH 3

Flow Path Name: Pipe
FLOW PATH TRAVEL TIME (min): 3.4548
Flow Type: Pipe
Length (ft): 1100
Top Elevation (ft): 108.8
Bottom Elevation (ft): 105.5
Contributing Area (acres): 22.95
Percent of Sub-Area (%): 97.7
Initial Pipe Diameter (in): 60
Calculated Pipe Diameter (in): 48
Used Pipe Diameter (in): 60
Manning's N: 0.013
Map Slope: 0.0030
Q for Flow Path (cfs): 71.27
Q Top (cfs): 1.71
Q Bottom (cfs): 72.98
Avg Velocity (ft/s): 3.94
Wave Velocity (ft/s): 5.31

Project: Village at Oxnard
Date: 12:00:00 AM
Engineer: Randy Chapman
Consultant: Huitt-Zollars Inc

Sub-Area Name: 2A
Tc: 9.733 Minutes
DATA FOR SUB AREA 2

SUB AREA TIME OF CONCENTRATION: 9.733 min. = 10 min.

SUB AREA INPUT DATA

Sub Area Name: 2A
Total Area (ac): 25.87
Flood Zone: 2
Rainfall Zone: K
Storm Frequency (years): 50
Development Type: Commercial
Soil Type: 4.00
Percent Impervious: 65
SUB AREA OUTPUT

Intensity (in/hr): 3.161
C Total: 0.875
Sum Q Segments (cfs): 71.53
Q Total (cfs): 71.53
Sum Percent Area (%): 100.0
Sum of Flow Path Travel Times (sec): 584.00
Time of Concentration (min): 9.733

DATA FOR FLOW PATH 1

Flow Path Name: Overland
FLOW PATH TRAVEL TIME (min): 2.0882
Flow Type: Overland
Length (ft): 75
Top Elevation (ft): 110
Bottom Elevation (ft): 109.6
Contributing Area (acres): 0.05
Percent of Sub-Area (%): 0.2
Overland Type: Valley
Development Type: Residential
Map Slope: 0.0053
Effective Slope: 0.0053
Q for Flow Path (cfs): 0.14
Avg Velocity (ft/s): 0.60
Passed Scour Check: N/A

DATA FOR FLOW PATH 2

Flow Path Name: Street
FLOW PATH TRAVEL TIME (min): 1.7912
Flow Type: Street
Length (ft): 200
Top Elevation (ft): 109.7

Bottom Elevation (ft): 108.5
Contributing Area (acres): 0.75
Percent of Sub-Area (%): 2.9
Street Width (ft): 32
Curb Height (in): 6
Map Slope: 0.0060
Q for Flow Path (cfs): 2.07
Q Top (cfs): 0.14
Q Bottom (cfs): 2.21
Velocity Top (ft/s): 0.82
Velocity Bottom (ft/s): 1.66
Avg Velocity (ft/s): 1.24
Wave Velocity (ft/s): 1.86

DATA FOR FLOW PATH 3

Flow Path Name: Pipe
FLOW PATH TRAVEL TIME (min): 5.8539
Flow Type: Pipe
Length (ft): 1850
Top Elevation (ft): 108.5
Bottom Elevation (ft): 103
Contributing Area (acres): 25.07
Percent of Sub-Area (%): 96.9
Initial Pipe Diameter (in): 60
Calculated Pipe Diameter (in): 48
Used Pipe Diameter (in): 60
Manning's N: 0.013
Map Slope: 0.0030
Q for Flow Path (cfs): 69.32
Q Top (cfs): 2.21
Q Bottom (cfs): 71.53
Avg Velocity (ft/s): 3.91
Wave Velocity (ft/s): 5.27
Watershed Name: Watershed B

Sub-Area Name: 3B
Tc: 7.257 Minutes
DATA FOR SUB AREA 1

SUB AREA TIME OF CONCENTRATION: 7.257 min. = 7 min.

SUB AREA INPUT DATA

Sub Area Name: 3B
Total Area (ac): 13.3
Flood Zone: 3
Rainfall Zone: K
Storm Frequency (years): 50
Development Type: Commercial
Soil Type: 4.00
Percent Impervious: 65
SUB AREA OUTPUT

Intensity (in/hr): 3.771
C Total: 0.884
Sum Q Segments (cfs): 44.35

Attachment 6:

Ventura County VCRAT Existing Condition Calculations

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Modified Rational Model Results Report

Job: 1 Project: Existing

Project Description

Existing Wagon Wheel VCRAT Output

VCRat version: 2.5.2007.2
VCRain version: 200604
DOS EXE version: PC 2.2-200604

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Page: 2

Job: 1 Project: Existing

Model Results

NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	ACCUMULATED AREA (AC)	ACCUMULATED FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A : Combined areas feeding Santa Clara River																		
1A	040	K50	6	90	10	38	10	38	1153	-------	----	-------	---	----	-----	-----	--	--
2B : Combined Areas Feeding El Rio Drain																		
2B	040	K50	17	90	55	126	55	126	1154	-------	----	-------	---	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

HYDROGRAPH PRINTOUT AT: 28

DESCRIPTION: Combined Areas Feeding El Rio Drain
TOTAL AREA TO HYDROGRAPH: 55 acres
HYDROGRAPH PEAK: 126 cfs
TIME OF PEAK: 1154 minutes
HYDROGRAPH VOLUME: 29.82 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.	100	3.	200	5.	300	6.	400	8.
500	10.	600	13.	700	15.	800	17.	900	20.
1000	25.	1050	25.	1100	30.	1110	31.	1120	36.
1130	40.	1131	40.	1132	41.	1133	41.	1134	41.
1135	41.	1136	43.	1137	45.	1138	46.	1139	48.
1140	49.	1141	51.	1142	54.	1143	56.	1144	58.
1145	61.	1146	64.	1147	67.	1148	70.	1149	73.
1150	80.	1151	94.	1152	112.	1153	124.	1154	126.
1155	125.	1156	124.	1157	123.	1158	121.	1159	119.
1160	117.	1161	114.	1162	111.	1163	108.	1164	104.
1165	101.	1166	96.	1167	89.	1168	74.	1169	56.
1170	41.	1171	37.	1172	35.	1173	34.	1174	33.
1175	32.	1176	31.	1177	30.	1178	30.	1179	30.
1180	29.	1181	29.	1182	29.	1183	29.	1184	29.
1185	29.	1186	28.	1187	28.	1188	28.	1189	28.
1190	28.	1191	28.	1192	28.	1193	27.	1194	27.
1195	27.	1196	27.	1197	26.	1198	26.	1199	26.
1200	26.	1201	25.	1202	25.	1203	25.	1204	25.
1205	24.	1206	24.	1207	24.	1208	24.	1209	24.
1210	24.	1211	24.	1212	23.	1213	23.	1214	23.
1215	23.	1216	22.	1217	22.	1218	22.	1219	22.
1220	21.	1221	21.	1222	21.	1223	21.	1224	20.
1225	20.	1226	20.	1227	20.	1228	20.	1229	20.
1230	20.	1231	20.	1232	19.	1233	19.	1234	19.
1235	19.	1236	19.	1237	19.	1238	18.	1239	18.
1240	18.	1241	18.	1242	18.	1243	18.	1244	17.
1245	17.	1246	17.	1247	17.	1248	17.	1249	17.
1250	17.	1251	17.	1252	17.	1253	17.	1254	17.
1255	17.	1256	17.	1257	17.	1258	17.	1259	17.
1260	17.	1261	17.	1262	17.	1263	17.	1264	17.
1265	17.	1266	16.	1267	16.	1268	16.	1269	16.
1270	16.	1271	16.	1272	16.	1273	16.	1274	16.
1275	16.	1276	16.	1277	16.	1278	16.	1279	16.
1280	16.	1281	16.	1282	16.	1283	16.	1284	16.
1285	16.	1286	16.	1287	16.	1288	16.	1289	16.
1290	16.	1291	16.	1292	16.	1293	16.	1294	16.
1295	16.	1296	16.	1297	16.	1298	16.	1299	16.
1300	16.	1310	13.	1320	11.	1330	11.	1340	11.
1350	9.	1360	7.	1370	7.	1380	7.	1390	7.
1400	7.	1420	4.	1440	4.	1460	0.	1500	0.

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Job: 1 Project: Existing

VCRat Model Input

Model Lines

```
--------------------------------------------------------------------------------------------------
005     1  001A Header place holder
005     1  002B Header place holder
999
999
006     1  001A 040090001006K50                          01
006     1  002B 040090005517K50                        1  2
999
```

Attachment 7:

Ventura County VCRAT Proposed Condition Calculations

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Modified Rational Model Results Report

Job: 1 Project: Proposed

Project Description

Proposed Wagon Wheel VCRAT Output

VCRat version: 2.5.2007.2
VCRain version: 200604
DOS EXE version: PC 2.2-200604

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Job: 1 Project: Proposed

Model Results

SUBAREA DATA AND RESULTS							ACCUMULATED DATA			ROUTING AFTER ACCUMULATION								
NODE ID	SOIL TYPE	RAIN ZONE	TC (MIN)	% IMP	AREA (AC)	FLOW (CFS)	AREA (AC)	FLOW (CFS)	TIME (MIN)	CHANNEL TYPE	LENGTH (FT)	SLOPE (FT/FT)	SIZE (FT)	H:V (Z)	N VALUES CHNL	N VALUES SIDES	VEL (FT/S)	DEPTH (FT)
1A : Upper Main Drainage Area																		
1A	040	K50	8	65	35	109	35	109	1153	PIPE	1200	0.00300	4.50	----	-----	-----	--	--
2A : Lower Main Drainage Area																		
2A	040	K50	10	65	25	69	60	161	1158	PIPE	500	0.00300	5.25	----	-----	-----	--	--

Issue/Warning Messages

TYPE	ERR NO	PROCEDURE	LOCATION	MESSAGE

NO ISSUES OR WARNINGS DETECTED

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Job: 1 Project: Proposed

Hydrograph Printouts

HYDROGRAPH PRINTOUT AT: 2A

DESCRIPTION: Lower Main Drainage Area
TOTAL AREA TO HYDROGRAPH: 60 acres
HYDROGRAPH PEAK: 161 cfs
TIME OF PEAK: 1158 minutes
HYDROGRAPH VOLUME: 24.34 acre-ft

TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)	TIME (min)	FLOW (cfs)
0	0.	100	2.	200	4.	300	5.	400	7.
500	8.	600	10.	700	12.	800	13.	900	15.
1000	19.	1050	20.	1100	23.	1110	25.	1120	31.
1130	35.	1131	35.	1132	35.	1133	36.	1134	36.
1135	36.	1136	38.	1137	39.	1138	40.	1139	42.
1140	45.	1141	48.	1142	51.	1143	55.	1144	58.
1145	63.	1146	66.	1147	70.	1148	73.	1149	77.
1150	82.	1151	94.	1152	108.	1153	122.	1154	132.
1155	143.	1156	153.	1157	159.	1158	161.	1159	159.
1160	153.	1161	136.	1162	111.	1163	86.	1164	70.
1165	57.	1166	49.	1167	43.	1168	38.	1169	35.
1170	32.	1171	29.	1172	28.	1173	27.	1174	26.
1175	25.	1176	25.	1177	24.	1178	24.	1179	23.
1180	23.	1181	23.	1182	23.	1183	23.	1184	22.
1185	22.	1186	22.	1187	22.	1188	22.	1189	22.
1190	22.	1191	22.	1192	22.	1193	22.	1194	22.
1195	21.	1196	21.	1197	21.	1198	21.	1199	20.
1200	20.	1201	20.	1202	19.	1203	19.	1204	19.
1205	19.	1206	19.	1207	19.	1208	19.	1209	19.
1210	19.	1211	19.	1212	19.	1213	19.	1214	18.
1215	18.	1216	18.	1217	18.	1218	17.	1219	17.
1220	17.	1221	16.	1222	16.	1223	16.	1224	16.
1225	16.	1226	16.	1227	16.	1228	16.	1229	16.
1230	16.	1231	16.	1232	15.	1233	15.	1234	15.
1235	15.	1236	15.	1237	15.	1238	14.	1239	14.
1240	14.	1241	14.	1242	14.	1243	14.	1244	14.
1245	14.	1246	13.	1247	13.	1248	13.	1249	13.
1250	13.	1251	13.	1252	13.	1253	13.	1254	13.
1255	13.	1256	13.	1257	13.	1258	13.	1259	13.
1260	13.	1261	13.	1262	13.	1263	13.	1264	13.
1265	13.	1266	13.	1267	13.	1268	13.	1269	13.
1270	13.	1271	13.	1272	12.	1273	12.	1274	12.
1275	12.	1276	12.	1277	12.	1278	12.	1279	12.
1280	12.	1281	12.	1282	12.	1283	12.	1284	12.
1285	12.	1286	12.	1287	12.	1288	12.	1289	12.
1290	12.	1291	12.	1292	12.	1293	12.	1294	12.
1295	12.	1296	12.	1297	12.	1298	12.	1299	12.
1300	12.	1310	10.	1320	9.	1330	9.	1340	9.
1350	7.	1360	6.	1370	6.	1380	6.	1390	6.
1400	6.	1420	4.	1440	3.	1460	1.	1500	1.

Ventura County Watershed Protection District
Modified Rational Method Hydrology Program (VCRat v2.5)

Job: 1 Project: Proposed

VCRat Model Input

Model Lines

```
--------------------------------------------------------------------------------------------
005     :  001A Header place holder
005     :  002A Header place holder
999
999
006     1  001A 040065003508K50401200000300                        G1
006     1  002A 040065002510K50400500000300                      1  2
999
```

Appendix E

Noise Data

ROADWAY TRAFFIC NOISE

Project:	Oxnard Village Specific Plan	Project No.	06-59800
Date:	21-May-08		
Roadway:	Vineyard Rd (Oxnard Blvd - Ventura Rd)		

PROJECT DATA and ASSUMPTIONS

Vehicle Reference Energy Mean Emission Levels (FHWA 1977, TNM®, or CALVENO):	TNM
Distance to Receptor:	50 feet
Site Condition (Hard or Soft):	Soft
Upgrade longer than 1 mile:	0 %
Existing Total Traffic Volume (ADT):	19,465 vehicles
Ambient Growth Factor:	0.0%
Future Year :	2014
Total Project Volume (ADT):	40 vehicles
Total Cumulative Growth Volume (ADT):	2275 vehicles
Source of Traffic Data: Kaku/Fehr & Peers	

Daily Vehicle Mix

	Existing	*Project*	*Future*
Automobile	90.0%	90.0%	90.0%
Medium Truck	5.0%	5.0%	5.0%
Heavy Truck	5.0%	5.0%	5.0%

Source: Assumed given land use and road characteristics

Percentage of Daily Traffic

	Existing and Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	77.5%	12.9%	9.6%
Medium Truck	84.8%	4.9%	10.3%
Heavy Truck	86.5%	2.7%	10.8%

Source: Default Assumption

	Project		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	100.0%	0.0%	0.0%
Medium Truck	100.0%	0.0%	0.0%
Heavy Truck	100.0%	0.0%	0.0%

Source: Default Assumption

Average Speed

	Existing		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

	Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

ROADWAY TRAFFIC NOISE

Project: Oxnard Village Specific Plan   Project No. 06-59800
Date: 21-May-08

Roadway: Vineyard Rd (Oxnard Blvd - Ventura Rd)

Vehicle Noise Emission Levels*: TNM

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)

	Ldn at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	70.3 dBA	#N/A	52	113	244	525
Existing + Project	70.3 dBA	#N/A	53	113	244	525
Future with Ambient Growth	70.3 dBA	#N/A	52	113	244	525
Future with Ambient Growth and Project	70.3 dBA	#N/A	53	113	244	525
Future with Ambient Growth and Cumulative Projects	70.8 dBA	19	56	122	262	565
Future with Ambient, Cumulative, and Project Growth	70.8 dBA	19	57	122	262	565

Change in Noise Levels

Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.5 dBA
Due to All Future Growth	0.5 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)

	CNEL at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	70.7 dBA	18	55	119	257	553
Existing + Project	70.7 dBA	18	55	119	257	553
Future with Ambient Growth	70.7 dBA	18	55	119	257	553
Future with Ambient Growth and Project	70.7 dBA	18	55	119	257	553
Future with Ambient Growth and Cumulative Projects	71.1 dBA	21	60	128	276	596
Future with Ambient, Cumulative, and Project Growth	71.1 dBA	21	60	128	276	596

Change in Noise Levels

Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.5 dBA
Due to All Future Growth	0.5 dBA

*NOTES: Based on algorithms from the Federal Highway Administration "Traffic Noise Model ®", FHWA-PD-96-010, January, 1998.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project:	Oxnard Village Specific Plan	Project No.	06-59800
Date:	21-May-08		
Roadway:	Oxnard Blvd (Vineyard Rd - Spur Dr)		

PROJECT DATA and ASSUMPTIONS

Vehicle Reference Energy Mean Emission Levels (FHWA 1977, TNM®, or CALVENO):	TNM
Distance to Receptor:	50 feet
Site Condition (Hard or Soft):	Soft
Upgrade longer than 1 mile:	0 %
Existing Total Traffic Volume (ADT):	21,820 vehicles
Ambient Growth Factor:	0.0%
Future Year :	2014
Total Project Volume (ADT):	920 vehicles
Total Cumulative Growth Volume (ADT):	5855 vehicles
Source of Traffic Data: Kaku/ Fehr & Peers	

Daily Vehicle Mix

	Existing	*Project*	*Future*
Automobile	90.0%	90.0%	90.0%
Medium Truck	5.0%	5.0%	5.0%
Heavy Truck	5.0%	5.0%	5.0%

Source: Assumed given land use and road characteristics

Percentage of Daily Traffic

	Existing and Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	77.5%	12.9%	9.6%
Medium Truck	84.8%	4.9%	10.3%
Heavy Truck	86.5%	2.7%	10.8%

Source: Default Assumption

	Project		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	100.0%	0.0%	0.0%
Medium Truck	100.0%	0.0%	0.0%
Heavy Truck	100.0%	0.0%	0.0%

Source: Default Assumption

Average Speed

	Existing		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

	Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

ROADWAY TRAFFIC NOISE

Project: Oxnard Village Specific Plan — Project No. 06-59800
Date: 21-May-08

Roadway: Oxnard Blvd (Vineyard Rd - Spur Dr)

Vehicle Noise Emission Levels*: TNM

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)

	Ldn at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	70.8 dBA	19	57	122	263	566
Existing + Project	70.9 dBA	19	57	124	267	575
Future with Ambient Growth	70.8 dBA	19	57	122	263	566
Future with Ambient Growth and Project	70.9 dBA	19	57	124	267	575
Future with Ambient Growth and Cumulative Projects	71.8 dBA	24	66	143	308	664
Future with Ambient, Cumulative, and Project Growth	71.9 dBA	25	67	145	312	671

Change in Noise Levels	
Due to Project	0.1 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	1.0 dBA
Due to All Future Growth	1.1 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)

	CNEL at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	71.2 dBA	21	60	129	277	597
Existing + Project	71.2 dBA	21	60	130	281	605
Future with Ambient Growth	71.2 dBA	21	60	129	277	597
Future with Ambient Growth and Project	71.2 dBA	21	60	130	281	605
Future with Ambient Growth and Cumulative Projects	72.2 dBA	26	70	151	324	699
Future with Ambient, Cumulative, and Project Growth	72.3 dBA	27	71	152	328	706

Change in Noise Levels	
Due to Project	0.1 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	1.0 dBA
Due to All Future Growth	1.1 dBA

*NOTES: Based on algorithms from the Federal Highway Administration "Traffic Noise Model ®", FHWA-PD-96-010, January, 1998.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project:	Oxnard Village Specific Plan	Project No.	06-59800
Date:	21-May-08		

Roadway: Oxnard Blvd (Spur Dr. - HWY 101 Ramps)

PROJECT DATA and ASSUMPTIONS

Vehicle Reference Energy Mean Emission Levels (FHWA 1977, TNM®, or CALVENO):	TNM
Distance to Receptor:	50 feet
Site Condition (Hard or Soft):	Soft
Upgrade longer than 1 mile:	0 %
Existing Total Traffic Volume (ADT):	24,215 vehicles
Ambient Growth Factor:	0.0%
Future Year :	2014
Total Project Volume (ADT):	2370 vehicles
Total Cumulative Growth Volume (ADT):	9480 vehicles
Source of Traffic Data: Kaku/Fehr & Peers	

Daily Vehicle Mix

	Existing	*Project*	*Future*
Automobile	90.0%	90.0%	90.0%
Medium Truck	5.0%	5.0%	5.0%
Heavy Truck	5.0%	5.0%	5.0%

Source: Assumed given land use and road characteristics

Percentage of Daily Traffic

	Existing and Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	77.5%	12.9%	9.6%
Medium Truck	84.8%	4.9%	10.3%
Heavy Truck	86.5%	2.7%	10.8%

Source: Default Assumption

	Project		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	100.0%	0.0%	0.0%
Medium Truck	100.0%	0.0%	0.0%
Heavy Truck	100.0%	0.0%	0.0%

Source: Default Assumption

Average Speed

	Existing		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

	Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

ROADWAY TRAFFIC NOISE

Project: Oxnard Village Specific Plan   Project No. 08-59800
Date: 21-May-08

Roadway: Oxnard Blvd (Spur Dr. - HWY 101 Ramps)

Vehicle Noise Emission Levels*: TNM

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	71.3 dBA	21	61	131	282	607
Existing + Project	71.5 dBA	22	63	135	291	627
Future with Ambient Growth	71.3 dBA	21	61	131	282	607
Future with Ambient Growth and Project	71.5 dBA	22	63	135	291	627
Future with Ambient Growth and Cumulative Projects	72.7 dBA	29	76	163	351	757
Future with Ambient, Cumulative, and Project Growth	72.9 dBA	31	77	167	360	775

Change in Noise Levels	
Due to Project	0.2 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	1.4 dBA
Due to All Future Growth	1.6 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	71.6 dBA	23	64	138	297	640
Existing + Project	71.8 dBA	24	66	142	306	659
Future with Ambient Growth	71.6 dBA	23	64	138	297	640
Future with Ambient Growth and Project	71.8 dBA	24	66	142	306	659
Future with Ambient Growth and Cumulative Projects	73.0 dBA	32	80	172	370	797
Future with Ambient, Cumulative, and Project Growth	73.2 dBA	33	81	176	378	815

Change in Noise Levels	
Due to Project	0.2 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	1.4 dBA
Due to All Future Growth	1.6 dBA

*NOTES: Based on algorithms from the Federal Highway Administration "Traffic Noise Model ®", FHWA-PD-96-010, January, 1998.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project:	Oxnard Village Specific Plan	Project No.	06-59800
Date:	21-May-08		

Roadway: Ventura Rd (Wagon Wheel - Vineyard)

PROJECT DATA and ASSUMPTIONS

Vehicle Reference Energy Mean Emission Levels (FHWA 1977, TNM®, or CALVENO):	TNM
Distance to Receptor:	50 feet
Site Condition (Hard or Soft):	Soft
Upgrade longer than 1 mile:	0 %
Existing Total Traffic Volume (ADT):	13,040 vehicles
Ambient Growth Factor:	0.0%
Future Year :	2014
Total Project Volume (ADT):	610 vehicles
Total Cumulative Growth Volume (ADT):	13075 vehicles
Source of Traffic Data: Kaku/Fehr & Peers	

Daily Vehicle Mix

	Existing	*Project*	*Future*
Automobile	90.0%	90.0%	90.0%
Medium Truck	5.0%	5.0%	5.0%
Heavy Truck	5.0%	5.0%	5.0%

Source: Assumed given land use and road characteristics

Percentage of Daily Traffic

	Existing and Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	77.5%	12.9%	9.6%
Medium Truck	84.8%	4.9%	10.3%
Heavy Truck	86.5%	2.7%	10.8%

Source: Default Assumption

	Project		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	100.0%	0.0%	0.0%
Medium Truck	100.0%	0.0%	0.0%
Heavy Truck	100.0%	0.0%	0.0%

Source: Default Assumption

Average Speed

	Existing		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

	Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

ROADWAY TRAFFIC NOISE

Project: Oxnard Village Specific Plan   Project No. 06-59800
Date: 21-May-08

Roadway: Ventura Rd (Wagon Wheel - Vineyard)

Vehicle Noise Emission Levels*: TNM

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	68.6 dBA	#N/A	36	87	186	402
Existing + Project	68.7 dBA	#N/A	37	88	190	408
Future with Ambient Growth	68.6 dBA	#N/A	36	87	186	402
Future with Ambient Growth and Project	68.7 dBA	#N/A	37	88	190	408
Future with Ambient Growth and Cumulative Projects	71.6 dBA	23	64	138	296	638
Future with Ambient, Cumulative, and Project Growth	71.6 dBA	23	64	139	299	644

Change in Noise Levels	
Due to Project	0.1 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	3.0 dBA
Due to All Future Growth	3.1 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet 75	70	65	60	55
Existing	68.9 dBA	#N/A	39	91	196	423
Existing + Project	69.0 dBA	#N/A	40	93	199	430
Future with Ambient Growth	68.9 dBA	#N/A	39	91	196	423
Future with Ambient Growth and Project	69.0 dBA	#N/A	40	93	199	430
Future with Ambient Growth and Cumulative Projects	71.9 dBA	25	67	145	312	673
Future with Ambient, Cumulative, and Project Growth	72.0 dBA	25	68	146	314	678

Change in Noise Levels	
Due to Project	0.1 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	3.0 dBA
Due to All Future Growth	3.1 dBA

*NOTES: Based on algorithms from the Federal Highway Administration "Traffic Noise Model ®", FHWA-PD-96-010, January, 1998.

#N/A = Not Applicable

ROADWAY TRAFFIC NOISE

Project:	Oxnard Village Specific Plan	Project No.	06-59800
Date:	21-May-08		

Roadway: HWY 101 (Oxnard Blvd - Johnson Dr)

PROJECT DATA and ASSUMPTIONS

Vehicle Reference Energy Mean Emission Levels (FHWA 1977, TNM8, or CALVENO):	TNM
Distance to Receptor:	50 feet
Site Condition (Hard or Soft):	Soft
Upgrade longer than 1 mile:	0 %
Existing Total Traffic Volume (ADT):	115,060 vehicles
Ambient Growth Factor:	0.0%
Future Year :	2014
Total Project Volume (ADT):	1700 vehicles
Total Cumulative Growth Volume (ADT):	3430 vehicles
Source of Traffic Data: Kaku/Fehr & Peers	

Daily Vehicle Mix

	Existing	*Project*	*Future*
Automobile	90.0%	90.0%	90.0%
Medium Truck	5.0%	5.0%	5.0%
Heavy Truck	5.0%	5.0%	5.0%

Source: Assumed given land use and road characteristics

Percentage of Daily Traffic

	Existing and Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	77.5%	12.9%	9.6%
Medium Truck	84.8%	4.9%	10.3%
Heavy Truck	86.5%	2.7%	10.8%

Source: Default Assumption

	Project		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	100.0%	0.0%	0.0%
Medium Truck	100.0%	0.0%	0.0%
Heavy Truck	100.0%	0.0%	0.0%

Source: Default Assumption

Average Speed

	Existing		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

	Future		
	Day (7 am-7 pm)	*Evening (7-10 pm)*	*Night (10 pm - 7 am)*
Automobile	35	35	35
Medium Truck	35	35	35
Heavy Truck	35	35	35

Source: Assumed average speed

ROADWAY TRAFFIC NOISE

Project: Oxnard Village Specific Plan Project No. 06-59600
Date: 21-May-08

Roadway: HWY 101 (Oxnard Blvd - Johnson Dr)

Vehicle Noise Emission Levels*: TNM

RESULTS

DAY-NIGHT AVERAGE LEVEL (Ldn)	Ldn at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet				
		75	70	65	60	55
Existing	78.0 dBA	80	172	370	798	1718
Existing + Project	78.1 dBA	80	172	372	800	1724
Future with Ambient Growth	78.0 dBA	80	172	370	798	1718
Future with Ambient Growth and Project	78.1 dBA	80	172	372	800	1724
Future with Ambient Growth and Cumulative Projects	78.2 dBA	81	175	377	812	1750
Future with Ambient, Cumulative, and Project Growth	78.2 dBA	82	176	379	816	1758

Change in Noise Levels

Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.1 dBA
Due to All Future Growth	0.2 dBA

COMMUNITY NOISE EXPOSURE LEVEL (CNEL)	CNEL at Site 50 feet from road centerline	Distance to dBA Contour Line from roadway centerline, feet				
		75	70	65	60	55
Existing	78.4 dBA	84	181	389	839	1807
Existing + Project	78.4 dBA	84	182	391	843	1816
Future with Ambient Growth	78.4 dBA	84	181	389	839	1807
Future with Ambient Growth and Project	78.4 dBA	84	182	391	843	1816
Future with Ambient Growth and Cumulative Projects	78.5 dBA	86	184	397	856	1843
Future with Ambient, Cumulative, and Project Growth	78.5 dBA	86	185	399	859	1852

Change in Noise Levels

Due to Project	0.0 dBA
Due to Ambient Growth	0.0 dBA
Due to Ambient and Cumulative	0.1 dBA
Due to All Future Growth	0.2 dBA

*NOTES: Based on algorithms from the Federal Highway Administration "Traffic Noise Model ®", FHWA-PD-96-010, January, 1998.

#N/A = Not Applicable

RAILROAD NOISE CALCULATION

Project: Oxnard Village Specific Plan

INPUT DATA

Passenger Trains		CORRECTION FACTORS		Assumed dBA
Number of locomotives (Default=1)	1	Grade-crossing with bells?	no	90
Number of cars (Default=8)	8	Horns?	no	96
Train speed in mph (Default=35)	35	Maximum of following adds to train car SENEL		
Distance to tracks, feet	64	Rough welded rail?	no	
Number of trains during day (7am-7pm)	12	Rough wheels?	no	
Number of trains during evening (7pm-10pm)	4	Old, corrugated rail?	no	
Number of trains during night (10pm-7am)	5	Wheels with flats?	no	
		Jointed rail?	no	
		Switch?	no	
		dBA added to car SENEL:	+ 0	
		Barrier adjustment for locomotive:	-15.3 dBA	
		Barrier adjustment for cars:	-15.3 dBA	

Freight Trains		CORRECTION FACTORS		Assumed dBA
Number of locomotives (Default=2)	2	Grade-crossing with bells?	no	90
Number of cars (Default=50)	50	Horns?	no	100
Train speed in mph (Default=35)	35	Maximum of following adds to train car SENEL		
Distance to tracks, feet	64	Rough welded rail?	no	
Number of trains during day (7am-7pm)	13	Rough wheels?	no	
Number of trains during evening (7pm-10pm)	2	Old, corrugated rail?	no	
Number of trains during night (10pm-7am)	2	Wheels with flats?	no	
		Jointed rail?	no	
		Switch?	no	
		dBA added to car SENEL:	+ 0	
		Barrier adjustment for locomotive:	-15.3 dBA	
		Barrier adjustment for cars:	-15.3 dBA	

CALCULATION RESULTS

Passenger Train CNEL value:	53.1 dBA
Freight Train CNEL value:	54.2 dBA
Combined CNEL value:	56.7 dBA
Distance to contour lines:	
80 dBA CNEL	Not Applicable
75 dBA CNEL	Not Applicable
70 dBA CNEL	Not Applicable
65 dBA CNEL	Not Applicable
60 dBA CNEL	Not Applicable
55 dBA CNEL	76 feet
50 dBA CNEL	146 feet

Note: Sound level calculations do not account for terrain, reflective conditions, or barrier features unless otherwise no

Reference: Harris, C.M. (1979), *Handbook of Noise Control, 2nd. Ed*

RAILROAD NOISE CALCULATION

Project: Oxnard Village Specific Plan 2ndd Story

INPUT DATA

Passenger Trains

Number of locomotives (Default=1)	1
Number of cars (Default=8)	8
Train speed in mph (Default=35)	35
Distance to tracks, feet	64
Number of trains during day (7am-7pm)	12
Number of trains during evening (7pm-10pm)	4
Number of trains during night (10pm-7am)	5

CORRECTION FACTORS		Assumed dBA
Grade-crossing with bells?	no	90
Horns?	no	96
Maximum of following adds to train car SENEL		
Rough welded rail?	no	
Rough wheels?	no	
Old, corrugated rail?	no	
Wheels with flats?	no	
Jointed rail?	no	
Switch?	no	
dBA added to car SENEL:	+ 0	
Barrier adjustment for locomotive:	0.0 dBA	
Barrier adjustment for cars:	0.0 dBA	

Freight Trains

Number of locomotives (Default=2)	2
Number of cars (Default=50)	50
Train speed in mph (Default=35)	35
Distance to tracks, feet	64
Number of trains during day (7am-7pm)	13
Number of trains during evening (7pm-10pm)	2
Number of trains during night (10pm-7am)	2

CORRECTION FACTORS		Assumed dBA
Grade-crossing with bells?	no	90
Horns?	no	100
Maximum of following adds to train car SENEL		
Rough welded rail?	no	
Rough wheels?	no	
Old, corrugated rail?	no	
Wheels with flats?	no	
Jointed rail?	no	
Switch?	no	
dBA added to car SENEL:	+ 0	
Barrier adjustment for locomotive:	0.0 dBA	
Barrier adjustment for cars:	0.0 dBA	

CALCULATION RESULTS

Passenger Train CNEL value:	68.4 dBA
Freight Train CNEL value:	69.6 dBA
Combined CNEL value:	72.0 dBA
Distance to contour lines:	
80 dBA CNEL	Not Applicable
75 dBA CNEL	Not Applicable
70 dBA CNEL	79 feet
65 dBA CNEL	152 feet
60 dBA CNEL	292 feet
55 dBA CNEL	560 feet
50 dBA CNEL	1074 feet

Note: Sound level calculations do not account for terrain, reflective conditions, or barrier features unless otherwise no

Reference: Harris, C.M. (1979), Handbook of Noise Control, 2nd. Ed

RAILROAD NOISE CALCULATION

Project: Oxnard Village Specific Plan 3rd Story

INPUT DATA

Passenger Trains

Number of locomotives (Default=1)	1
Number of cars (Default=8)	8
Train speed in mph (Default=35)	35
Distance to tracks, feet	64
Number of trains during day (7am-7pm)	12
Number of trains during evening (7pm-10pm)	4
Number of trains during night (10pm-7am)	5

CORRECTION FACTORS		Assumed dBA
Grade-crossing with bells?	no	90
Horns?	no	96
Maximum of following adds to train car SENEL		
Rough welded rail?	no	
Rough wheels?	no	
Old, corrugated rail?	no	
Wheels with flats?	no	
Jointed rail?	no	
Switch?	no	
dBA added to car SENEL:	+ 0	
Barrier adjustment for locomotive:	0.0 dBA	
Barrier adjustment for cars:	0.0 dBA	

Freight Trains

Number of locomotives (Default=2)	2
Number of cars (Default=50)	50
Train speed in mph (Default=35)	35
Distance to tracks, feet	64
Number of trains during day (7am-7pm)	13
Number of trains during evening (7pm-10pm)	2
Number of trains during night (10pm-7am)	2

CORRECTION FACTORS		Assumed dBA
Grade-crossing with bells?	no	90
Horns?	no	100
Maximum of following adds to train car SENEL		
Rough welded rail?	no	
Rough wheels?	no	
Old, corrugated rail?	no	
Wheels with flats?	no	
Jointed rail?	no	
Switch?	no	
dBA added to car SENEL:	+ 0	
Barrier adjustment for locomotive:	0.0 dBA	
Barrier adjustment for cars:	0.0 dBA	

CALCULATION RESULTS

Passenger Train CNEL value:	68.4	dBA
Freight Train CNEL value:	69.6	dBA
Combined CNEL value:	72.0	dBA
Distance to contour lines:		
80 dBA CNEL	Not Applicable	
75 dBA CNEL	Not Applicable	
70 dBA CNEL	79	feet
65 dBA CNEL	152	feet
60 dBA CNEL	292	feet
55 dBA CNEL	560	feet
50 dBA CNEL	1074	feet

Note: Sound level calculations do not account for terrain, reflective conditions, or barrier features unless otherwise no

Reference: *Harris, C.M. (1979), Handbook of Noise Control, 2nd. Ed*

City of Oxnard
Patrick Nichols

21 May 2008
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: Existing Traffic
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Townhome 1 floor 1	1	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
Townhome 1 floor 2	2	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
Townhome 1 floor 3	3	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
Townhome 2 floor 1	4	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
Townhome 2 floor 2	5	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
Townhome 2 floor 3	6	1	0.0	76.1	66	76.1	10	Snd Lvl	76.1	0.0	8	-8.0
Townhome 3 floor 1	7	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
Townhome 3 floor 2	8	1	0.0	73.9	66	73.9	10	Snd Lvl	73.9	0.0	8	-8.0
Townhome 3 floor 3	9	1	0.0	78.5	66	78.5	10	Snd Lvl	78.5	0.0	8	-8.0
Townhome 4 floor 1	10	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
Townhome 4 floor 2	11	1	0.0	78.6	66	78.6	10	Snd Lvl	78.6	0.0	8	-8.0
Townhome 4 floor 3	12	1	0.0	79.9	66	79.9	10	Snd Lvl	79.9	0.0	8	-8.0
Townhome 5 floor 1	13	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
Townhome 5 floor 2	14	1	0.0	77.4	66	77.4	10	Snd Lvl	77.4	0.0	8	-8.0
Townhome 5 floor 3	15	1	0.0	77.9	66	77.9	10	Snd Lvl	77.9	0.0	8	-8.0
Townhome 6 floor 1	16	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
Townhome 6 floor 2	17	1	0.0	79.5	66	79.5	10	Snd Lvl	79.5	0.0	8	-8.0
Townhome 6 floor 3	18	1	0.0	79.6	66	79.6	10	Snd Lvl	79.6	0.0	8	-8.0
Townhome 7 floor 1	19	1	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
Townhome 7 floor 2	20	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
Townhome 7 floor 3	21	1	0.0	72.9	66	72.9	10	Snd Lvl	72.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max

		dB	dB	dB
All Selected	21	0.0	0.0	0.0
All Impacted	16	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

City of Oxnard
Patrick Nichols

21 May 2008
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: Existing Traffic

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
HWY 101 NB Ln 1	15.0	Ln 1 S	1	200.0	23.0	12.00				Average	
		point79	79	478.1	103.7	12.00				Average	
		point80	80	1,466.7	391.0	12.00				Average	
		Ln 1 N	2	2,100.0	575.0	12.00					
HWY 101 NB Ln 2	15.0	Ln 2 S	3	200.0	31.0	12.00				Average	
		point77	77	474.3	110.5	12.00				Average	
		point78	78	1,466.7	399.0	12.00				Average	
		Ln 2 N	4	2,100.0	583.0	12.00					
HWY 101 NB Ln 3	15.0	Ln 3 S	5	200.0	39.0	12.00				Average	
		point75	75	471.2	117.8	12.00				Average	
		point76	76	1,466.7	407.0	12.00				Average	
		Ln 3 N	6	2,100.0	591.0	12.00					
HWY 101 NB Ln 4	15.0	Ln 4 S	7	200.0	47.0	12.00				Average	
		point73	73	463.7	123.4	12.00				Average	
		point74	74	1,466.7	415.0	12.00				Average	
		Ln4 N	8	2,100.0	599.0	12.00					
HWY 101 NB Ln 5	15.0	Ln 5 S	9	200.0	55.0	12.00				Average	
		point71	71	460.0	130.7	12.00				Average	
		point72	72	1,466.7	423.0	12.00				Average	
		Ln 5 N	10	2,100.0	607.0	12.00					
HWY 101 NB Ln 6	15.0	Ln 6 S	11	200.0	63.0	12.00				Average	
		point69	69	458.1	138.1	12.00				Average	
		point70	70	1,466.7	431.0	12.00				Average	
		Ln 6 N	12	2,100.0	615.0	12.00					
HWY 101 SB Ln 1	15.0	Ln 1 N	13	2,100.0	640.0	12.00				Average	

		point67	67	1,466.7	455.0	12.00				Average	
		point68	68	447.6	157.4	12.00				Average	
		Ln 1 S	14	200.0	85.0	12.00					
HWY 101 SB Ln 2	15.0	Ln 2 N	15	2,100.0	648.0	12.00				Average	
		point65	65	1,466.7	463.0	12.00				Average	
		point66	66	443.2	164.1	12.00				Average	
		Ln 2 S	16	200.0	93.0	12.00					
HWY 101 SB Ln 3	15.0	Ln 3 N	17	2,100.0	656.0	12.00				Average	
		point63	63	1,466.7	471.0	12.00				Average	
		point64	64	438.2	170.9	12.00				Average	
		Ln 3 S	18	200.0	101.0	12.00					
HWY 101 SB Ln 4	15.0	Ln 4 N	19	2,100.0	664.0	12.00				Average	
		point61	61	1,466.7	479.0	12.00				Average	
		point62	62	436.4	178.3	12.00				Average	
		Ln 4 S	20	200.0	109.0	12.00					
HWY 101 SB Ln 5	15.0	Ln 5 N	21	2,100.0	672.0	12.00				Average	
		point59	59	1,466.7	487.0	12.00				Average	
		point60	60	432.3	184.8	12.00				Average	
		Ln 5 S	22	200.0	117.0	12.00					
HWY 101 SB Ln 6	15.0	Ln 6 N	23	2,100.0	680.0	12.00				Average	
		point58	58	1,467.2	495.0	12.00				Average	
		point57	57	430.0	191.7	12.00				Average	
		Ln 6 S	24	200.0	125.0	12.00					
101 SB Offramp (OxBlvd) Ln 1	12.0	Ln1 N	25	1,120.0	400.0	12.00				Average	
		Ln1 S	26	465.0	300.0	16.00					
101 SB Offramp (OxBlvd) bothlanes	12.0	N	27	1,182.0	413.0	12.00				Average	
		S	28	1,120.0	406.0	12.00					
101 SB Offramp (Ox Blvd) Ln 1 Split	12.0	Ln 1 N	29	465.0	300.0	16.00				Average	
		Ln 1 S	30	375.0	272.3	26.00					
Ox Blvd Overpass WBnd	12.0	W bnd E	31	550.0	0.0	28.00	Signal	0.00	100	Average	Y
		point57	32	351.0	260.0	23.00					
Ox Blvd Overpass E bound	12.0	Ebnd W	34	200.0	340.0	18.00				Average	Y
		E bnd E	35	475.0	0.0	28.00					
Ox blvd Offramp connect	12.0	point40	36	320.0	340.0	18.00				Average	
		point39	37	286.4	353.1	14.00					
Ox Blvd offramp connect2	12.0	point42	38	375.0	272.0	26.00				Average	
		point41	39	353.7	260.4	28.00					
Oxnard Blvd	12.0	W bnd W	40	278.5	360.0	18.00				Average	

		W bnd E	41	0.0	575.0	0.00						
Oxnard Blvd E bound	12.0	E bnd E	42	0.0	510.0	0.00				Average		
		E bnd W	43	198.3	343.1	18.00						
101 SB Offramp (Ventura Rd)	12.0	9	44	2,030.2	661.7	12.00				Average		
		8	45	2,000.0	660.0	11.00				Average		
		7	46	1,850.0	650.0	10.00				Average		
		6	47	1,800.0	650.0	9.00				Average		
		5	48	1,760.0	700.0	8.00				Average		
		4	49	1,775.0	750.0	6.00				Average		
		3	50	1,800.0	775.0	4.00				Average		
		2	51	1,850.0	785.0	2.00				Average		
		1	52	2,000.0	808.0	0.00						
101 SB Offramp (OxBlvd) Ln 2-101 SB Offram	12.0	Ln 2 N	53	1,120.0	408.0	12.00				Average		
		Ln 2 S	54	465.0	325.0	16.00				Average		
		Ln 2 N	55	464.9	324.9	16.00				Average		
		Ln 2 S	56	320.0	340.0	18.00						
Ox Blvd Overpass WBnd-2	12.0	point81	81	351.0	260.0	23.00	Signal	0.00	100	Average	Y	
		W bnd W	33	280.9	355.2	18.00						

City of Oxnard 21 May 2008
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INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: Existing Traffic

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
HWY 101 NB Ln 1	Ln 1 S	1	874	55	39	45	39	45	10	45	10	55
	point79	79	874	45	39	40	39	40	10	40	10	40
	point80	80	874	45	39	40	39	40	10	40	10	40
	Ln 1 N	2										
HWY 101 NB Ln 2	Ln 2 S	3	874	55	39	45	39	45	10	45	10	55
	point77	77	874	48	39	43	39	43	10	43	10	48
	point78	78	874	48	39	43	39	43	10	43	10	48
	Ln 2 N	4										
HWY 101 NB Ln 3	Ln 3 S	5	874	60	39	55	39	55	10	55	10	60
	point75	75	874	51	39	46	39	46	10	46	10	51
	point76	76	874	51	39	46	39	46	10	46	10	51
	Ln 3 N	6										
HWY 101 NB Ln 4	Ln 4 S	7	874	60	39	55	39	55	10	55	10	60
	point73	73	874	54	39	49	39	49	10	49	10	54
	point74	74	874	54	39	49	39	49	10	49	10	54
	Ln4 N	8										
HWY 101 NB Ln 5	Ln 5 S	9	874	70	39	65	39	65	10	65	10	70
	point71	71	874	57	39	52	39	52	10	52	10	57
	point72	72	874	57	39	52	39	52	10	52	10	57
	Ln 5 N	10										
HWY 101 NB Ln 6	Ln 6 S	11	874	70	39	65	39	65	10	65	10	70
	point69	69	874	60	39	55	39	55	10	55	10	60

INPUT: TRAFFIC FOR LAeq1h Volumes **Oxnard Village Specific Plan**

	point70	70	874	60	39	55	39	55	10	55	10	60
	Ln 6 N	12										
HWY 101 SB Ln 1	Ln 1 N	13	1059	70	47	65	47	65	12	65	12	70
	point67	67	1059	70	47	65	47	65	12	65	12	70
	point68	68	1059	70	47	65	47	65	12	65	12	70
	Ln 1 S	14										
HWY 101 SB Ln 2	Ln 2 N	15	1059	70	47	65	47	65	12	65	12	70
	point65	65	1059	70	47	65	47	65	12	65	12	70
	point66	66	1059	70	47	65	47	65	12	65	12	70
	Ln 2 S	16										
HWY 101 SB Ln 3	Ln 3 N	17	1059	60	47	55	47	55	12	55	12	60
	point63	63	1059	60	47	55	47	55	12	55	12	60
	point64	64	1059	60	47	55	47	55	12	55	12	60
	Ln 3 S	18										
HWY 101 SB Ln 4	Ln 4 N	19	1059	60	47	55	47	55	12	55	12	60
	point61	61	1059	60	47	55	47	55	12	55	12	60
	point62	62	1059	60	47	55	47	55	12	55	12	60
	Ln 4 S	20										
HWY 101 SB Ln 5	Ln 5 N	21	1059	55	47	45	47	45	12	45	12	55
	point59	59	1059	55	47	45	47	45	12	45	12	55
	point60	60	1059	55	47	45	47	45	12	45	12	55
	Ln 5 S	22										
HWY 101 SB Ln 6	Ln 6 N	23	1059	55	47	45	47	45	12	12	12	55
	point58	58	1059	55	47	45	47	45	12	45	12	55
	point57	57	1059	55	47	45	47	45	12	45	12	55
	Ln 6 S	24										
101 SB Offramp (OxBlvd) Ln 1	Ln1 N	25	54	25	2	25	2	25	0	0	0	0
	Ln1 S	26										
101 SB Offramp (OxBlvd) bothlanes	N	27	1047	45	46	40	46	40	0	0	0	0
	S	28										
101 SB Offramp (Ox Blvd) Ln 1 Split	Ln 1 N	29	54	10	2	10	2	10	0	0	0	0
	Ln 1 S	30										
Ox Blvd Overpass WBnd	W bnd E	31	493	25	21	25	21	25	0	0	0	0
	point57	32										

INPUT: TRAFFIC FOR LAeq1h Volumes **Oxnard Village Specific Plan**

Ox Blvd Overpass E bound	Ebnd W	34	709	25	31	25	31	25	0	0	0	0
	E bnd E	35										
Ox blvd Offramp connect	point40	36	993	15	43	10	43	10	0	0	0	0
	point39	37										
Ox Blvd offramp connect2	point42	38	54	10	2	10	2	10	0	0	0	0
	point41	39										
Oxnard Blvd	W bnd W	40	1374	25	60	25	60	25	0	0	0	0
	W bnd E	41										
Oxnard Blvd E bound	E bnd E	42	870	25	38	25	38	25	0	0	0	0
	E bnd W	43										
101 SB Offramp (Ventura Rd)	9	44	0	0	0	0	0	0	0	0	0	0
	8	45	0	0	0	0	0	0	0	0	0	0
	7	46	0	0	0	0	0	0	0	0	0	0
	6	47	0	0	0	0	0	0	0	0	0	0
	5	48	0	0	0	0	0	0	0	0	0	0
	4	49	0	0	0	0	0	0	0	0	0	0
	3	50	0	0	0	0	0	0	0	0	0	0
	2	51	0	0	0	0	0	0	0	0	0	0
	1	52										
101 SB Offramp (OxBlvd) Ln 2-101 SB Offr	Ln 2 N	53	993	20	43	20	43	20	0	0	0	0
	Ln 2 S	54	993	20	43	20	43	20	0	0	0	0
	Ln 2 N	55	993	20	43	20	43	20	0	0	0	0
	Ln 2 S	56										
Ox Blvd Overpass WBnd-2	point81	81	372	25	16	25	16	25	0	0	0	0
	W bnd W	33										

City of Oxnard 21 May 2008
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INPUT: RECEIVERS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: Existing Traffic

Receiver

Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Townhome 1 floor 1	1	1	410.0	460.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 1 floor 2	2	1	410.5	460.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 1 floor 3	3	1	411.0	460.0	0.10	22.00	0.00	66	10.0	8.0	Y
Townhome 2 floor 1	4	1	600.0	400.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 2 floor 2	5	1	600.5	400.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 2 floor 3	6	1	600.8	400.0	0.10	22.00	0.00	66	10.0	8.0	Y
Townhome 3 floor 1	7	1	800.0	400.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 3 floor 2	8	1	800.5	400.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 3 floor 3	9	1	800.7	400.0	0.10	22.00	0.00	66	10.0	8.0	Y
Townhome 4 floor 1	10	1	1,000.0	425.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 4 floor 2	11	1	1,000.5	425.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 4 floor 3	12	1	1,000.7	425.0	0.10	22.00	0.00	66	10.0	8.0	Y
Townhome 5 floor 1	13	1	1,170.0	520.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 5 floor 2	14	1	1,170.5	520.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 5 floor 3	15	1	1,170.7	520.0	0.10	22.00	0.00	66	10.0	8.0	Y
Townhome 6 floor 1	16	1	1,600.0	600.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 6 floor 2	17	1	1,600.5	600.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 6 floor 3	18	1	1,600.7	600.0	0.10	22.00	0.00	66	10.0	8.0	Y
Townhome 7 floor 1	19	1	1,950.0	850.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 7 floor 2	20	1	1,950.5	850.0	0.10	13.00	0.00	66	10.0	8.0	Y
Townhome 7 floor 3	21	1	1,950.7	850.0	0.10	22.00	0.00	66	10.0	8.0	Y

City of Oxnard
Patrick Nichols

21 May 2008
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: 2014 Predicted Traffic
BARRIER DESIGN: unsaved

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier				
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal	
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB	
Townhome 1 floor 1	1	1	0.0	62.3	66	62.3	10	----	58.0	4.3	8	-3.7	
Townhome 1 floor 2	2	1	0.0	69.7	66	69.7	10	Snd Lvl	59.0	10.7	8	2.7	
Townhome 1 floor 3	3	1	0.0	73.4	66	73.4	10	Snd Lvl	62.3	11.1	8	3.1	
Townhome 2 floor 1	4	1	0.0	61.7	66	61.7	10	----	58.3	3.4	8	-4.6	
Townhome 2 floor 2	5	1	0.0	73.5	66	73.5	10	Snd Lvl	58.6	14.9	8	6.9	
Townhome 2 floor 3	6	1	0.0	77.0	66	77.0	10	Snd Lvl	64.4	12.6	8	4.6	
Townhome 3 floor 1	7	1	0.0	63.5	66	63.5	10	----	59.6	3.9	8	-4.1	
Townhome 3 floor 2	8	1	0.0	77.5	66	77.5	10	Snd Lvl	59.8	17.7	8	9.7	
Townhome 3 floor 3	9	1	0.0	79.1	66	79.1	10	Snd Lvl	65.9	13.2	8	5.2	
Townhome 4 floor 1	10	1	0.0	63.1	66	63.1	10	----	58.8	4.3	8	-3.7	
Townhome 4 floor 2	11	1	0.0	80.1	66	80.1	10	Snd Lvl	60.0	20.1	8	12.1	
Townhome 4 floor 3	12	1	0.0	80.4	66	80.4	10	Snd Lvl	66.1	14.3	8	6.3	
Townhome 5 floor 1	13	1	0.0	66.8	66	66.8	10	Snd Lvl	61.0	5.8	8	-2.2	
Townhome 5 floor 2	14	1	0.0	78.1	66	78.1	10	Snd Lvl	61.9	16.2	8	8.2	
Townhome 5 floor 3	15	1	0.0	78.4	66	78.4	10	Snd Lvl	65.0	13.4	8	5.4	
Townhome 6 floor 1	16	1	0.0	66.8	66	66.8	10	Snd Lvl	61.2	5.6	8	-2.4	
Townhome 6 floor 2	17	1	0.0	80.0	66	80.0	10	Snd Lvl	61.7	18.3	8	10.3	
Townhome 6 floor 3	18	1	0.0	80.0	66	80.0	10	Snd Lvl	66.4	13.6	8	5.6	
Townhome 7 floor 1	19	1	0.0	59.1	66	59.1	10	----	53.3	5.8	8	-2.2	
Townhome 7 floor 2	20	1	0.0	72.9	66	72.9	10	Snd Lvl	53.4	19.5	8	11.5	
Townhome 7 floor 3	21	1	0.0	73.8	66	73.8	10	Snd Lvl	60.6	13.2	8	5.2	

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max

RESULTS: SOUND LEVELS

Oxnard Village Specific Plan

		dB	dB	dB
All Selected	21	3.4	11.5	20.1
All Impacted	16	5.6	13.8	20.1
All that meet NR Goal	14	10.7	14.9	20.1

City of Oxnard
Patrick Nichols

21 May 2008
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INPUT: ROADWAYS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: 2014 Predicted Traffic

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement) X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
HWY 101 NB Ln 1	15.0	Ln 1 S	1	200.0	23.0	12.00				Average	
		point79	79	478.1	103.7	12.00				Average	
		point80	80	1,466.7	391.0	12.00				Average	
		Ln 1 N	2	2,100.0	575.0	12.00					
HWY 101 NB Ln 2	15.0	Ln 2 S	3	200.0	31.0	12.00				Average	
		point77	77	474.3	110.5	12.00				Average	
		point78	78	1,466.7	399.0	12.00				Average	
		Ln 2 N	4	2,100.0	583.0	12.00					
HWY 101 NB Ln 3	15.0	Ln 3 S	5	200.0	39.0	12.00				Average	
		point75	75	471.2	117.8	12.00				Average	
		point76	76	1,466.7	407.0	12.00				Average	
		Ln 3 N	6	2,100.0	591.0	12.00					
HWY 101 NB Ln 4	15.0	Ln 4 S	7	200.0	47.0	12.00				Average	
		point73	73	463.7	123.4	12.00				Average	
		point74	74	1,466.7	415.0	12.00				Average	
		Ln4 N	8	2,100.0	599.0	12.00					
HWY 101 NB Ln 5	15.0	Ln 5 S	9	200.0	55.0	12.00				Average	
		point71	71	460.0	130.7	12.00				Average	
		point72	72	1,466.7	423.0	12.00				Average	
		Ln 5 N	10	2,100.0	607.0	12.00					
HWY 101 NB Ln 6	15.0	Ln 6 S	11	200.0	63.0	12.00				Average	
		point69	69	458.1	138.1	12.00				Average	
		point70	70	1,466.7	431.0	12.00				Average	
		Ln 6 N	12	2,100.0	615.0	12.00					
HWY 101 SB Ln 1	15.0	Ln 1 N	13	2,100.0	640.0	12.00				Average	

		point67	67	1,466.7	455.0	12.00				Average	
		point68	68	447.6	157.4	12.00				Average	
		Ln 1 S	14	200.0	85.0	12.00					
HWY 101 SB Ln 2	15.0	Ln 2 N	15	2,100.0	648.0	12.00				Average	
		point65	65	1,466.7	463.0	12.00				Average	
		point66	66	443.2	164.1	12.00				Average	
		Ln 2 S	16	200.0	93.0	12.00					
HWY 101 SB Ln 3	15.0	Ln 3 N	17	2,100.0	656.0	12.00				Average	
		point63	63	1,466.7	471.0	12.00				Average	
		point64	64	438.2	170.9	12.00				Average	
		Ln 3 S	18	200.0	101.0	12.00					
HWY 101 SB Ln 4	15.0	Ln 4 N	19	2,100.0	664.0	12.00				Average	
		point61	61	1,466.7	479.0	12.00				Average	
		point62	62	436.4	178.3	12.00				Average	
		Ln 4 S	20	200.0	109.0	12.00					
HWY 101 SB Ln 5	15.0	Ln 5 N	21	2,100.0	672.0	12.00				Average	
		point59	59	1,466.7	487.0	12.00				Average	
		point60	60	432.3	184.8	12.00				Average	
		Ln 5 S	22	200.0	117.0	12.00					
HWY 101 SB Ln 6	15.0	Ln 6 N	23	2,100.0	680.0	12.00				Average	
		point58	58	1,467.2	495.0	12.00				Average	
		point57	57	430.0	191.7	12.00				Average	
		Ln 6 S	24	200.0	126.0	12.00					
101 SB Offramp (OxBlvd) Ln 1	12.0	Ln1 N	25	1,120.0	400.0	12.00				Average	
		Ln1 S	26	465.0	300.0	16.00					
101 SB Offramp (OxBlvd) bothlanes	12.0	N	27	1,182.0	413.0	12.00				Average	
		S	28	1,120.0	406.0	12.00					
101 SB Offramp (Ox Blvd) Ln 1 Split	12.0	Ln 1 N	29	465.0	300.0	16.00				Average	
		Ln 1 S	30	375.0	272.3	26.00					
Ox Blvd Overpass WBnd	12.0	W bnd E	31	550.0	0.0	28.00	Signal	0.00	100	Average	Y
		point57	32	351.0	260.0	23.00					
Ox Blvd Overpass E bound	12.0	Ebnd W	34	200.0	340.0	18.00				Average	Y
		E bnd E	35	475.0	0.0	28.00					
Ox blvd Offramp connect	12.0	point40	36	320.0	340.0	18.00				Average	
		point39	37	286.4	353.1	14.00					
Ox Blvd offramp connect2	12.0	point42	38	375.0	272.0	26.00				Average	
		point41	39	353.7	260.4	28.00					
Oxnard Blvd	12.0	W bnd W	40	278.5	360.0	18.00				Average	

		W bnd E	41	0.0	575.0	0.10					
Oxnard Blvd E bound	12.0	E bnd E	42	0.0	510.0	0.10				Average	
		E bnd W	43	196.3	343.1	18.00					
101 SB Offramp (Ventura Rd)	12.0	9	44	2,030.2	861.7	12.00				Average	Y
		8	45	2,000.0	860.0	11.00				Average	Y
		7	46	1,850.0	650.0	10.00				Average	Y
		6	47	1,800.0	650.0	9.00				Average	Y
		5	48	1,760.0	700.0	8.00				Average	Y
		4	49	1,775.0	750.0	6.00				Average	Y
		3	50	1,800.0	775.0	4.00				Average	Y
		2	51	1,850.0	785.0	2.00				Average	
		1	52	2,000.0	808.0	0.10					
101 SB Offramp (OxBlvd) Ln 2-101 SB Offram	12.0	Ln 2 N	53	1,120.0	408.0	12.00				Average	
		Ln 2 S	54	465.0	325.0	16.00				Average	
		Ln 2 N	55	464.9	324.9	16.00				Average	
		Ln 2 S	56	320.0	340.0	18.00					
Ox Blvd Overpass WBnd-2	12.0	point81	81	351.0	260.0	23.00	Signal	0.00	100	Average	Y
		W bnd W	33	280.9	355.2	18.00					

City of Oxnard 21 May 2008
Patrick Nichols TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: 2014 Predicted Traffic

Roadway	Points												
Name	Name	No.	Segment										
			Autos		MTrucks		HTrucks		Buses		Motorcycles		
			V	S	V	S	V	S	V	S	V	S	
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
HWY 101 NB Ln 1	Ln 1 S	1	964	55	43	45	43	45	11	45	11	55	
	point79	79	964	55	43	45	43	45	11	45	11	55	
	point80	80	964	55	43	45	43	45	11	45	11	55	
	Ln 1 N	2											
HWY 101 NB Ln 2	Ln 2 S	3	964	55	43	45	43	45	11	45	11	55	
	point77	77	964	55	43	45	43	45	11	45	11	55	
	point78	78	964	55	43	45	43	45	11	45	11	55	
	Ln 2 N	4											
HWY 101 NB Ln 3	Ln 3 S	5	964	60	43	55	43	55	11	55	11	60	
	point75	75	964	60	43	55	43	55	11	55	11	60	
	point76	76	964	60	43	55	43	55	11	55	11	60	
	Ln 3 N	6											
HWY 101 NB Ln 4	Ln 4 S	7	964	60	43	55	43	55	11	55	11	60	
	point73	73	964	60	43	55	43	55	11	55	11	60	
	point74	74	964	60	43	55	43	55	11	55	11	60	
	Ln4 N	8											
HWY 101 NB Ln 5	Ln 5 S	9	964	70	43	65	43	65	11	65	11	70	
	point71	71	964	70	43	65	43	65	11	65	11	70	
	point72	72	964	70	43	65	43	65	11	65	11	70	
	Ln 5 N	10											
HWY 101 NB Ln 6	Ln 6 S	11	964	70	43	65	43	65	11	65	11	70	
	point69	69	964	70	43	65	43	65	11	65	11	70	

	point70	70	964	70	43	65	43	65	11	65	11	70
	Ln 6 N	12										
HWY 101 SB Ln 1	Ln 1 N	13	953	70	42	65	42	65	11	65	11	70
	point67	67	953	70	42	65	42	65	11	65	11	70
	point68	68	953	70	42	65	42	65	11	65	11	70
	Ln 1 S	14										
HWY 101 SB Ln 2	Ln 2 N	15	953	70	42	65	42	65	11	65	11	70
	point65	65	953	70	42	65	42	65	11	65	11	70
	point66	66	953	70	42	65	42	65	11	65	11	70
	Ln 2 S	16										
HWY 101 SB Ln 3	Ln 3 N	17	953	60	42	55	42	55	11	55	11	60
	point63	63	953	60	42	55	42	55	11	55	11	60
	point64	64	953	60	42	55	42	55	11	55	11	60
	Ln 3 S	18										
HWY 101 SB Ln 4	Ln 4 N	19	953	60	42	55	42	55	11	55	11	60
	point61	61	953	60	42	55	42	55	11	55	11	60
	point62	62	953	60	42	55	42	55	11	55	11	60
	Ln 4 S	20										
HWY 101 SB Ln 5	Ln 5 N	21	953	55	42	45	42	45	11	45	11	55
	point59	59	953	55	42	45	42	45	11	45	11	55
	point60	60	953	55	42	45	42	45	11	45	11	55
	Ln 5 S	22										
HWY 101 SB Ln 6	Ln 6 N	23	953	55	42	45	42	45	11	45	11	55
	point58	58	953	55	42	45	42	45	11	45	11	55
	point57	57	953	55	42	45	42	45	11	45	11	55
	Ln 6 S	24										
101 SB Offramp (OxBlvd) Ln 1	Ln1 N	25	988	25	43	25	43	25	0	0	0	0
	Ln1 S	26										
101 SB Offramp (OxBlvd) bothlanes	N	27	2145	45	93	40	93	40	0	0	0	0
	S	28										
101 SB Offramp (Ox Blvd) Ln 1 Split	Ln 1 N	29	988	10	43	10	43	10	0	0	0	0
	Ln 1 S	30										
Ox Blvd Overpass WBnd	W bnd E	31	11[illegible]	25	55	25	55	25	0	0	0	0
	point57	32										

INPUT: TRAFFIC FOR LAeq1h Volumes Oxnard Village Specific Plan

Ox Blvd Overpass E bound	Ebnd W	34	2326	25	101	25	101	25	0	0	0	0
	E bnd E	35										
Ox blvd Offramp connect	point40	36	1157	15	50	10	50	10	0	0	0	0
	point39	37										
Ox Blvd offramp connect2	point42	38	988	10	43	10	43	10	0	0	0	0
	point41	39										
Oxnard Blvd	W bnd W	40	2304	25	100	25	100	25	0	0	0	0
	W bnd E	41										
Oxnard Blvd E bound	E bnd E	42	1141	25	50	25	50	25	0	0	0	0
	E bnd W	43										
101 SB Offramp (Ventura Rd)	9	44	786	15	34	15	34	15	0	0	0	0
	8	45	786	15	34	15	34	15	0	0	0	0
	7	46	786	15	34	15	34	15	0	0	0	0
	6	47	786	15	34	15	34	15	0	0	0	0
	5	48	786	15	34	15	34	15	0	0	0	0
	4	49	786	15	34	15	34	15	0	0	0	0
	3	50	786	15	34	15	34	15	0	0	0	0
	2	51	786	15	34	15	34	15	0	0	0	0
	1	52										
101 SB Offramp (OxBlvd) Ln 2-101 SB Offr	Ln 2 N	53	1157	20	50	20	50	20	0	0	0	0
	Ln 2 S	54	1157	20	50	20	50	20	0	0	0	0
	Ln 2 N	55	1157	20	50	20	50	20	0	0	0	0
	Ln 2 S	56										
Ox Blvd Overpass WBnd-2	point81	81	1146	25	50	25	50	25	0	0	0	0
	W bnd W	33										

City of Oxnard 21 May 2008
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INPUT: RECEIVERS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: 2014 Predicted Traffic

Receiver												
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Townhome 1 floor 1	1	1	410.0	460.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 1 floor 2	2	1	410.5	460.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 1 floor 3	3	1	411.0	460.0	0.10	24.92	0.00	66	10.0	8.0	Y
Townhome 2 floor 1	4	1	600.0	400.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 2 floor 2	5	1	600.5	400.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 2 floor 3	6	1	600.8	400.0	0.10	24.92	0.00	66	10.0	8.0	Y
Townhome 3 floor 1	7	1	800.0	400.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 3 floor 2	8	1	800.5	400.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 3 floor 3	9	1	800.7	400.0	0.10	24.92	0.00	66	10.0	8.0	Y
Townhome 4 floor 1	10	1	1,000.0	425.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 4 floor 2	11	1	1,000.5	425.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 4 floor 3	12	1	1,000.7	425.0	0.10	24.92	0.00	66	10.0	8.0	Y
Townhome 5 floor 1	13	1	1,170.0	520.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 5 floor 2	14	1	1,170.5	520.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 5 floor 3	15	1	1,170.7	520.0	0.10	24.92	0.00	66	10.0	8.0	Y
Townhome 6 floor 1	16	1	1,600.0	600.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 6 floor 2	17	1	1,600.5	600.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 6 floor 3	18	1	1,600.7	600.0	0.10	24.92	0.00	66	10.0	8.0	Y
Townhome 7 floor 1	19	1	1,950.0	850.0	0.10	4.92	0.00	66	10.0	8.0	Y
Townhome 7 floor 2	20	1	1,950.5	850.0	0.10	14.92	0.00	66	10.0	8.0	Y
Townhome 7 floor 3	21	1	1,950.7	850.0	0.10	24.92	0.00	66	10.0	8.0	Y

City of Oxnard 21 May 2008
Patrick Nichols TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: Oxnard Village Specific Plan
RUN: 2014 Predicted Traffic

Barrier									Points										
Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Incre-ment	Perturbs #Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Sound Wall	W	0.00	99.99	0.00				0.00	point102	146	1,980.0	900.0	12.10	0.00	3.40	5	0		
									point101	145	1,975.0	850.0	12.10	0.00	3.40	5	0		
									point100	144	1,950.0	830.0	12.10	0.00	3.40	5	0		
									point99	143	1,900.0	820.0	12.10	0.00	3.40	5	0		
									point98	142	1,850.0	815.0	12.10	0.00	3.40	5	0		
									point97	141	1,800.0	800.0	12.10	0.00	3.40	5	0		
									point96	140	1,750.0	760.0	12.10	0.00	3.40	5	0		
									point95	139	1,740.0	750.0	12.10	0.00	3.40	5	0		
									point94	138	1,725.0	730.0	12.10	0.00	3.40	5	0		
									point93	137	1,730.0	700.0	12.10	0.00	3.40	5	0		
									point92	136	1,715.0	650.0	12.10	0.00	3.40	5	0		
									point91	135	1,700.0	620.0	12.10	0.00	3.40	5	0		
									point90	134	1,675.0	580.0	12.10	0.00	3.40	5	0		
									point89	133	1,650.0	575.0	12.10	0.00	3.40	5	0		
									point88	132	1,600.0	575.0	12.10	0.00	3.40	5	0		
									point87	131	1,550.0	558.0	12.10	0.00	3.40	5	0		
									point86	130	1,500.0	532.0	12.10	0.00	3.40	5	0		
									point85	129	1,450.0	520.0	12.10	0.00	3.40	5	0		
									point84	128	1,400.0	513.0	12.10	0.00	3.40	5	0		
									point83	127	1,350.0	508.0	12.10	0.00	3.40	5	0		
									point82	126	1,300.0	500.0	12.10	0.00	3.40	5	0		
									point81	125	1,250.0	480.0	12.10	0.00	3.40	5	0		
									point80	124	1,200.0	470.0	12.10	0.00	3.40	5	0		
									point79	123	1,150.0	458.0	12.10	0.00	3.40	5	0		
									point78	122	1,100.0	445.0	12.10	0.00	3.40	5	0		
									point104	121	1,050.0	430.0	12.10	0.00	3.40	5	0		
									point77	120	1,000.0	420.0	12.10	0.00	3.40	5	0		
									point76	119	950.0	405.0	12.10	0.00	3.40	5	0		
									point75	118	900.0	395.0	12.10	0.00	3.40	5	0		
									point74	117	850.0	387.0	12.10	0.00	3.40	5	0		
									point73	116	800.0	385.0	12.10	0.00	3.40	5	0		
									point72	115	750.0	380.0	12.10	0.00	3.40	5	0		
									point71	114	700.0	380.0	12.10	0.00	3.40	5	0		
									point70	113	650.0	386.0	12.10	0.00	3.40	5	0		
									point69	112	625.0	390.0	12.10	0.00	3.40	5	0		

INPUT: BARRIERS

Oxnard Village Specific Plan

point68	111	600.0	382.0	12.10	0.00	3.40	5	0
point67	110	575.0	378.0	12.10	0.00	3.40	5	0
point66	109	550.0	372.0	12.10	0.00	3.40	5	0
point65	108	525.0	365.0	12.10	0.00	3.40	5	0
point64	107	500.0	360.0	12.10	0.00	3.40	5	0
point63	106	475.0	360.0	12.10	0.00	3.40	5	0
point62	105	450.0	370.0	12.10	0.00	3.40	5	0
point61	104	425.0	386.0	12.10	0.00	3.40	5	0
point60	155	400.0	422.0	12.10	0.00	3.40	5	0
point59	154	375.0	445.0	12.10	0.00	3.40	5	0
point58	153	350.0	450.0	12.10	0.00	3.40	5	0
point57	152	325.0	449.0	12.10	0.00	3.40	5	0
point56	151	300.0	448.0	12.10	0.00	3.40	5	0
point55	150	270.0	450.0	12.10	0.00	3.40	5	0
point54	149	250.0	466.0	12.10	0.00	3.40	5	0
point53	148	227.0	500.0	12.10	0.00			

Appendix F

Traffic Studies

TRAFFIC IMPACT STUDY FOR THE OXNARD VILLAGE DEVELOPMENT PROJECT EIR

OXNARD, CALIFORNIA

MAY 2008

PREPARED FOR

CITY OF OXNARD

PREPARED BY

FEHR & PEERS

KAKU ASSOCIATES

TRAFFIC IMPACT STUDY
FOR THE
OXNARD VILLAGE DEVELOPMENT PROJECT EIR

OXNARD, CALIFORNIA

May 2008

Prepared for:

CITY OF OXNARD

Prepared by:

FEHR & PEERS/KAKU ASSOCIATES
201 Santa Monica Boulevard, Suite 500
Santa Monica, California 90401
(310) 458-9916

Ref: LA06-2067

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I. INTRODUCTION

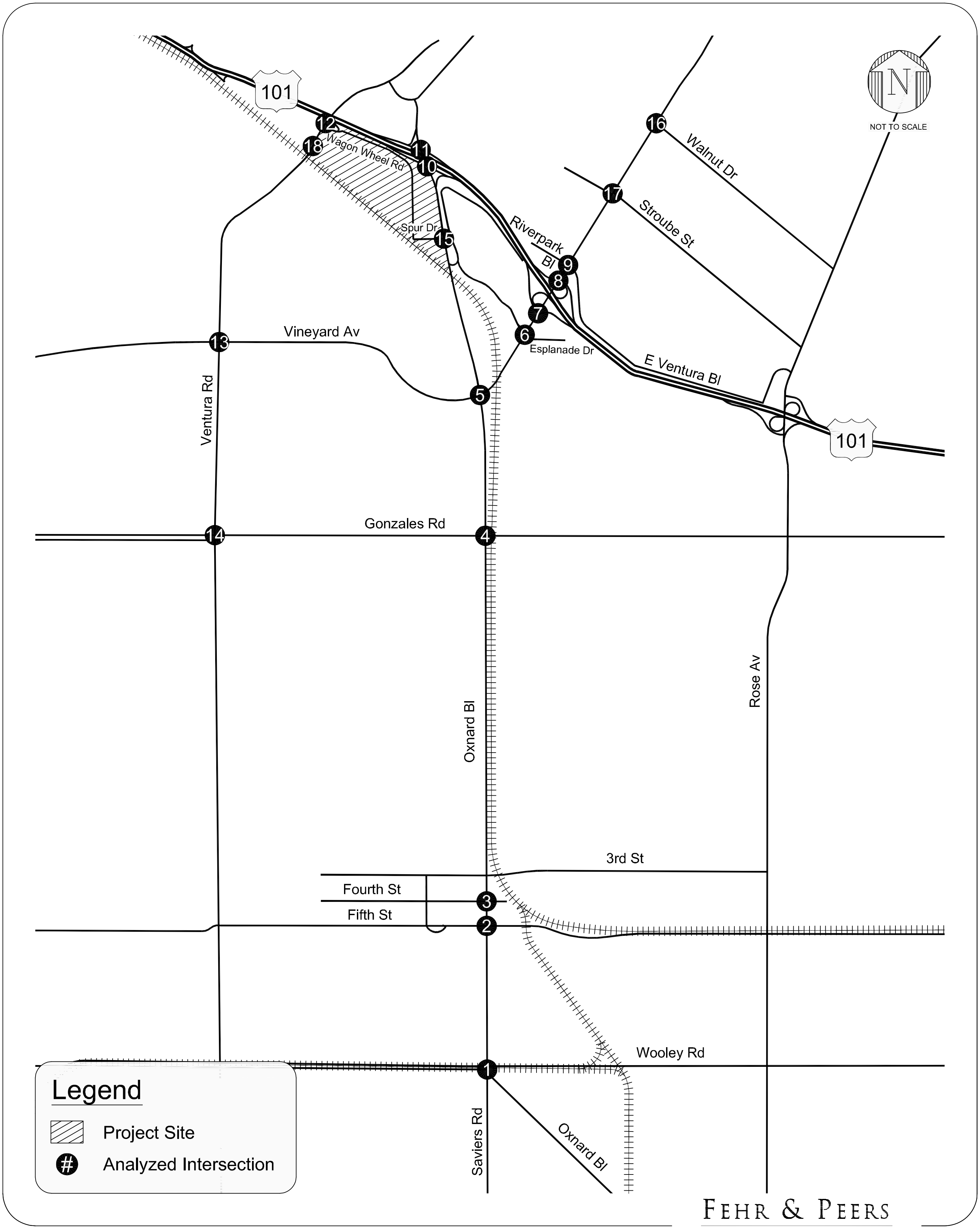
This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers/Kaku Associates to evaluate the potential traffic and parking impacts of the proposed residential and commercial Oxnard Village Development in the City of Oxnard, California.

PROJECT DESCRIPTION

The project site is south of US 101 between Oxnard Boulevard and Ventura Road. Railroad right-of-way forms the southern edge of the project site. The site is currently occupied by a mobile home park, aging industrial and commercial facilities, and a sparsely occupied neighborhood shopping center. The proposed project involves the development of residential condominiums, live/work condominiums, retail space, commercial office space and park space. The following information describes the sizes of these uses in detail:

- 1,486 residential units consisting of townhomes, apartments, and condominiums
- Live/work condominiums with 14 residential spaces and 4,000 gross square feet (gsf) of commercial work space
- 46,400 gsf of retail space
- 4,000 gsf of commercial office space
- Three acres of park space
- A transit center including 50 park and ride parking spaces

All existing land uses will be removed to make room for the proposed project land uses. Figure 1 illustrates the location of the proposed project in relation to the surrounding street system, and Figure 2 illustrates the ground-level site plan of the proposed project.



FEHR & PEERS
KAKU ASSOCIATES

FIGURE 1
STUDY AREA AND ANALYZED INTERSECTIONS

Source: Daly Owens Group

FEHR & PEERS
KAKU ASSOCIATES

FIGURE 2
SITE PLAN

STUDY SCOPE

The scope of analysis for this study was developed in conjunction with the City of Oxnard. The base assumptions, technical methodologies, and geographic coverage of the study were all identified as part of the study approach. The study, which analyzes potential project-generated traffic impacts on the adjacent street system, expects that the project will be completed by 2014. The analysis of future year traffic forecasts is based on projected conditions in 2014 both with and without the addition of the project traffic. Four traffic scenarios have been developed and analyzed as part of this study:

- Existing Conditions – The analysis of existing traffic conditions provides a basis for the remainder of the study. The existing conditions analysis includes a description of the street system serving the site, current traffic volumes, and an assessment of the operating conditions at these locations.

- 2014 Existing plus Project Conditions – The traffic generated from the project was added to the projected background traffic expected for the year 2014. This analysis does not included surrounding proposed projects but provides a basis for identifying locations that are impacted by the new project.

- 2014 Existing plus Pending Projects Conditions – Future traffic conditions without the proposed project were developed for the year 2014. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and pending related projects in the vicinity of the project site by the year 2014.

- 2014 Existing plus Pending plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of project-generated traffic. The impacts of the proposed project on future traffic operating conditions are identified in this scenario.

The transportation staff of the City of Oxnard identified 18 intersections in the vicinity of the proposed development for detailed analysis:

1. Oxnard Boulevard & Saviers Road & Wooley Road
2. Oxnard Boulevard & Fifth Street
3. Oxnard Boulevard & Fourth Street
4. Oxnard Boulevard & Gonzales Road
5. Oxnard Boulevard & Vineyard Avenue
6. Vineyard Avenue & Esplanade Drive
7. US 101 southbound off-ramps & Vineyard Avenue
8. US 101 northbound on-ramps & Vineyard Avenue
9. Vineyard Avenue & Riverpark Boulevard & Ventura Boulevard (Previously Vineyard Avenue & Myrtle Avenue)

10. US 101 southbound off-ramps & Oxnard Boulevard
11. US 101 northbound off-ramps & Oxnard Boulevard
12. US 101 southbound off-ramps & Ventura Road (Currently Wagon Wheel Road & Ventura Road)
13. Ventura Road & Vineyard Avenue
14. Ventura Road & Gonzales Road
15. Oxnard Boulevard & Main Street (Currently Oxnard Boulevard & Spur Drive)
16. Vineyard Avenue & Walnut Drive
17. Vineyard Avenue & Stroube Street
18. Ventura Road & Main Street (Currently Ventura Road & Shopping Center Driveway)

The locations of the 18 analyzed intersections are illustrated in Figure 1.

The study also analyzes potential project impacts on the Congestion Management Program (CMP) intersections and freeway segments in accordance with requirements of *2004/2005 Ventura County Congestion Management Program* (Ventura County Transportation Commission, March 2005). The CMP freeway analysis was evaluated for the following three scenarios:

- Existing Conditions
- 2014 Existing plus Pending Conditions
- 2014 Existing plus Pending plus Project Conditions

Additionally, the adequacy of the site plan with respect to site access and internal circulation is addressed. Finally, the study evaluates the ability of the proposed parking supply to accommodate projected parking demands for the proposed project.

ORGANIZATION OF REPORT

This report is divided into seven chapters, including this introduction. Chapter II describes the existing circulation system and traffic conditions in the study area. Chapter III describes the methodologies used to forecast future traffic volumes. Chapter IV presents an assessment of potential traffic impacts for the future traffic conditions and the anticipated traffic generated by the proposed project and the recommended traffic mitigation measures. Chapter V assesses the internal site circulation and parking demand. The impacts on the regional transportation system are discussed in Chapter VI. Chapter VII summarizes the conclusions of the study and the recommendations intended to address significant impacts. Appendices to this report include details of the technical analysis.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study included an inventory of the street system, traffic volumes on these facilities, and operating conditions at key intersections.

EXISTING STREET SYSTEM

US 101 (Ventura Freeway) to the north and Oxnard Boulevard (SR 1) to the east provide primary regional access to the site. As illustrated in Figure 1, the project site is south of US 101 between Oxnard Boulevard and Ventura Road. For the purposes of this report, Vineyard Avenue is designated as an east-west street at all project intersections.

Access to the project site from US 101 Ventura Freeway is via the on-/off-ramps at Oxnard Boulevard and Vineyard Avenue, as well as a southbound off-ramp at Ventura Road. Access to Oxnard Boulevard is available on the east side of the project via Main Street (currently Spur Drive). Main Street will run east/west through the project and also provide access to Ventura Road to the west. The following is a brief description of the major streets serving the project site:

- <u>Ventura Road</u> – Ventura Road is a four- to six-lane north-south arterial roadway that extends north from Port Hueneme Road to Forest Park Boulevard.
- <u>Oxnard Boulevard</u> – Oxnard Boulevard is a four- to six-lane divided arterial roadway extending south from US 101 to Rose Avenue. It serves as a major arterial for the City of Oxnard and is the principal intra-city route along the California coast.
- <u>Vineyard Avenue</u> – Vineyard Avenue is a four- to six-lane east-west arterial roadway that extends north from Oxnard Boulevard to Los Angeles Avenue (SR 118) in Ventura County.

- Gonzales Road – Gonzales Road is a two- to six-lane east-west roadway that serves the central and north-central portions of the City of Oxnard. Gonzales Road extends from Harbor Boulevard to Rice Avenue.

- Fifth Street – Fifth Street is a two- to four-lane arterial roadway that serves the central portion of Oxnard, including downtown and the Oxnard Airport. The roadway extends from Harbor Boulevard to the west to Pleasant Valley Road to the east.

- Wooley Road – Wooley Road is a two- to four-lane arterial roadway that serves the south central portion of Oxnard. It extends from Harbor Boulevard to Rice Avenue.

Table 1 provides a description of each of these facilities and summarizes the physical characteristics of all key streets in the study area. Diagrams of the existing lane configurations at each of the 18 analyzed intersections are provided in Appendix A.

EXISTING TRAFFIC VOLUMES AND LEVEL OF SERVICE

This section presents the existing intersection peak hour traffic volumes, a description of the methodology used to analyze the intersection traffic conditions, and the resulting levels of service (LOS) at each study intersection. Traffic counts are provided in Appendix B.

Existing Traffic Volumes – Intersections

Traffic volumes at the 18 study intersections were collected during the morning and afternoon peak hours, from 7:00 to 9:00 AM and from 4:00 to 6:00 PM, respectively. The peak one-hour period for the morning and afternoon was found by identifying the four consecutive 15-minute periods with the highest traffic volumes.

The majority of the traffic volume counts were taken on typical weekdays in January 2008. Counts for intersections 1, 5, 6, 9, and 14 were obtained from the City of Oxnard from counts taken on typical weekdays in September 2007.

These weekday peak hour traffic volumes, illustrated in Figure 3, represent the existing conditions for the purposes of this analysis.

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

SEGMENT	FROM	TO	LANE		MEDIAN	PARKING RESTRICTIONS		SPEED
			NB/EB	SB/WB	TYPE	NB/EB	SB/WB	LIMIT
Walnut Dr	Vineyard Av	Rose Av	1	1	DY	PA	PA	25
Stroube St	Vineyard Av	Rose Av	1	1	DY	PA	PA	25
E Ventura Blvd	Vineyard Av	Rose Av	1	1	DY	NPAT	NPAT	40
Ventura Rd	Wagon Wheel Rd	Vineyard Av	2	2	RM	NPAT	NPAT	40
	Vineyard Av	Carmen Wy	2	2	RM	NSAT	NSAT	40
	Carmen Wy	Gonzales Rd	2	2	RM	PA	PA	40
	Gonzales Rd	Ivywood	3	3	RM	NSAT	NSAT	45
	Ivywood	Doris Av	2	2	2LT	NSAT	NSAT	45
	Doris Av	Second St	2	2	DY	NSAT	NSAT	45
	Second St	Fifth St	3	2	RM	NSAT	NSAT	45
	Fifth St	Ninth St	3	3	RM	NSAT	NSAT	45
	Ninth St	Wooley Rd	3	2	RM	NSAT	NSAT	45
Oxnard Bl	Wooley Rd	Robert Av	2	2	RM	NPAT	NPAT	30
	Robert Av	Gonzales Rd	2	2	RM	NPAT	NPAT	45
	Gonzales Rd	Vineyard Av	3	3	RM	NPAT	NPAT	45
	Vineyard Av	Esplanade Dr	3	3	RM	NPAT	NPAT	50
	Esplanade Dr	Town Center Dr	2	2	RM	NPAT	NPAT	50
Vineyard Av	Forest Park Blvd	Stroube St	2	2	2LT	PA	NSAT	50
	Stroube St	Riverpark Blvd	2	2	DY	PA	PA	35
	Myrtle St	Esplanade Dr	3	3	DY	NSAT	NSAT	35
	Esplanade Dr	Oxnard Bl	3	3	RM	NSAT	NSAT	35
	Oxnard Bl	H St	2	2	RM	PA	PA	40
	H St	Ventura Rd	2	2	RM	NSAT	NSAT	40
	Ventura Rd	Town Center Dr	2	2	RM	PA	PA	40
Rose Av	Fifth St	Third St	3	3	RM	NPAT	NPAT	40
	Third St	Camino Del Sol	2	2	RM	NPAT	PA	40
	Camino Del Sol	Cesar Chavez Dr	2	2	DY	NPAT	NPAT	40
	Cesar Chavez Dr	Gonzales Rd	3	3	RM	NPAT	NPAT	40
	Gonzales Rd	Lockwood Av	3	3	RM	NPAT	NPAT	40
	Lockwood	E Ventura Bl	3	3	DY	NPAT	NPAT	40
	E Ventura Bl	Stroube St	2	2	RM	NPAT	NPAT	40
Gonzales Rd	west end	Oxnard Bl	2	2	RM	NPAT	NPAT	45
	Oxnard Bl	Entrada Dr	2	3	RM	NPAT	NPAT	45
	Entrada Dr	Rose Av	3	3	RM	NPAT	NPAT	45
5th St	Rose Av	Pacific Av	1	1	DY	NPAT	NPAT	35
	Pacific Av	Diaz Av	1	1	DY	PA	PA	35
	Diaz Av	Oxnard Bl	2	2	DY	PA	PA	35
	Oxnard Bl	C St	1	1	2LT	PA	PA	25
	C St	H St	1	1	DY	PA	PA	35
	H St	K St	2	2	RM	PA	PA	35
	K St	Ventura Rd	2	2	RM	NPAT	PA	35
Wooley Rd	Ventura Rd	G St	2	2	RM	PA	NPAT	40
	G St	C St	2	2	RM	NPAT	PA	40
	C St	Oxnard Bl	2	2	RM	NPAT	NPAT	40
	C St	Oxnard Bl	2	2	RM	NPAT	NPAT	40

Notes:

MEDIAN TYPE:
- DY = Double Yellow Centerline
- SDY = Single Dashed Yellow Centerline
- 2LT = Dual Left Turn Centerline
- RM = Raised Median
- UD = Undivided Lane

PARKING:
- PA = Parking Allowed
- NSAT = No Stopping Anytime
- GZ = Green zone - Passenger loading and unloading
- RZ = Red zone - No parking allowed

LANES: # = Number of lanes

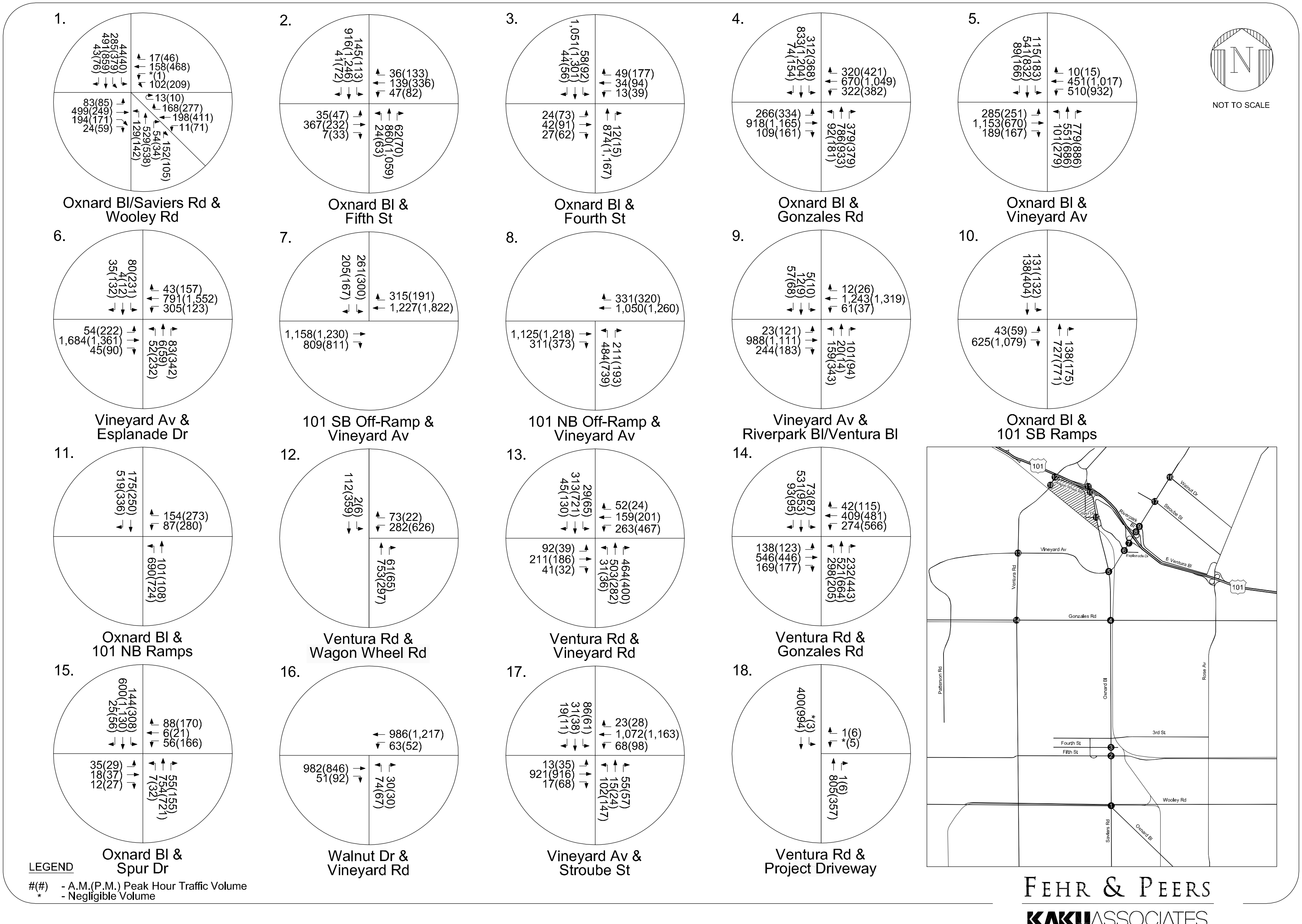


FIGURE 3
EXISTING PEAK HOUR TRAFFIC VOLUMES

Level of Service Methodology

LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. All of the study intersections are signalized and LOS definitions for signalized intersections are presented in Table 2. The LOS standard for the City of Oxnard is LOS C where it is "environmentally feasible." However, all roadways and intersections identified in the CMP are permitted to operate up to LOS E conditions, unless otherwise stated. All study intersections along Ventura Road and Oxnard Boulevard are considered CMP intersections. Even though these intersections can operate at LOS E under the CMP, they will be highlighted as locations that operate below the City of Oxnard standards if they are operating below LOS C.

For consistency, levels of service for all study area intersections were calculated using the Intersection Capacity Utilization (ICU) methodology as specified in the CMP. The following guidelines are provided for calculating ICU in Ventura County:

- Phasing/Split Phasing – Shared left/through lanes will be treated as split phased.
- Right-Turn Overlap – The overlapping left-turn volume will be subtracted from the right-turn volume and then compared to the through volume to determine the critical move.
- LOS Threshold – LOS will be calculated to two decimal points.
- Intersection Proximity – Each intersection will be analyzed separately.
- Multiple Left-Turn Lanes – Assume uniform lane distribution.
- Saturation Flow Rate – 1,850 vehicles per lane per hour with an adjustment factor of 14%-15% (the adjustment factor represents a combination of start-up delay, unequal lane distribution, and lost time during clearance. Application of this factor effectively reduces the saturation flow rate to approximately 1,600 vehicles per lane per hour).

Existing Levels of Service

The traffic volumes presented in Figure 3 were analyzed using the ICU analysis methodology described above to determine current operating conditions at the study intersections. At signalized intersections, the calculation is expressed in a vehicle-to-capacity (V/C) ratio for

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths

Source: *Highway Capacity Manual, Special Report 209* , Transportation Research Board, 2000.

critical movements where the volumes at the intersection were compared to the actual capacity of the intersection.

Table 3 summarizes the results of this analysis indicating the existing morning and evening peak hour V/C ratio and corresponding LOS at each of the analyzed intersections. Appendix C contains the LOS worksheets. The 5-legged Oxnard Boulevard & Saviers Road & Wooley Road intersection is the only study intersection that currently operates below the LOS C threshold. This intersection operates at an LOS D during the PM Peak Hour.

EXISTING TRANSIT SERVICE

The hub for bus and rail transportation in Oxnard is the Oxnard Transportation Center (OTC) at Fourth Street & Oxnard Boulevard, which is approximately 2.5 miles south of the project site. As shown in Figure 4, four bus routes provide service around the project site and eight bus routes provide service in the study area. In addition, two regional rail routes serve Oxnard. The Oxnard transit lines described below consist of Gold Coast Transit (GCT) routes, a Metrolink line, and an Amtrak line:

<u>Routes Providing Service to the Project Site</u>

- <u>GCT Route 6: Oxnard-Ventura/Main Street</u> – Route 6 provides service between the OTC and Ventura. The route uses Oxnard Boulevard and Esplanade Drive in the vicinity of the project site and would provide direct transit access to the proposed project via Spur Drive. Route 6 provides two slightly varying routes: 6A and 6B. Each route provides 40-minute headways throughout the day. More limited service is provided on Saturday and Sunday.

- <u>GCT Route 15: El Rio/Northeast</u> – Route 15 provides service between transfer stations at Vineyard Avenue/Esplanade Drive through El Rio to Neyland Acres in northeast Oxnard. The route uses Vineyard Avenue, Esplanade Drive and Oxnard Boulevard in the vicinity of the project site. The route operates on approximately 40-minute headways throughout the day daily.

- <u>GTC Route 30X: OTC-VTC Express</u> – Route 30X provides service between the Ventura Transfer Center near the Pacific View Mall and the OTC. The route uses Oxnard Blvd and US 101 with stops along Esplanade Drive, providing access near the proposed project. The route operates three trips in the morning and four trips in the afternoon Monday through Friday with limited stops.

TABLE 3
EXISTING CONDITIONS (YEAR 2008) INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	Peak Hour	2008 Existing Conditions	
			V/C	LOS
1.	Oxnard Boulevard & Saviers Road & Wooley Road	A.M. P.M.	0.67 0.82	B D
2.	Oxnard Boulevard & Fifth Street	A.M. P.M.	0.53 0.69	A B
3.	Oxnard Boulevard & Fourth Street	A.M. P.M.	0.39 0.56	A A
4.	Oxnard Boulevard & Gonzales Road	A.M. P.M.	0.67 0.79	B C
5.	Oxnard Boulevard & Vineyard Avenue	A.M. P.M.	0.59 0.76	A C
6.	Esplanade Drive & Vineyard Avenue	A.M. P.M.	0.50 0.66	A B
7.	US 101 SB Ramps & Vineyard Avenue	A.M. P.M.	0.60 0.60	A A
8.	US 101 NB Ramps & Vineyard Avenue	A.M. P.M.	0.48 0.63	A B
9.	Riverpark Blvd & Vineyard Avenue	A.M. P.M.	0.50 0.65	A B
10.	Oxnard Boulevard & US 101 SB Ramps	A.M. P.M.	0.17 0.18	A A
11.	Oxnard Boulevard & US 101 NB Ramps	A.M. P.M.	0.34 0.44	A A
12.	Ventura Road & Wagon Wheel Road	A.M. P.M.	0.32 0.31	A A
13.	Ventura Road & Vineyard Avenue	A.M. P.M.	0.43 0.50	A A
14.	Ventura Road & Gonzales Road	A.M. P.M.	0.57 0.66	A B
15.	Oxnard Boulevard & Spur Drive	A.M. P.M.	0.29 0.47	A A
16.	Walnut Drive & Vineyard Avenue	A.M. P.M.	0.43 0.39	A A
17.	Stroube Street & Vineyard Avenue	A.M. P.M.	0.51 0.58	A A
18.	Ventura Road & Village Parkway Drive	A.M. P.M.	0.17 0.31	A A

Note:
V/C ratios based on ICU calculation procedures outlined in the Ventura County CMP

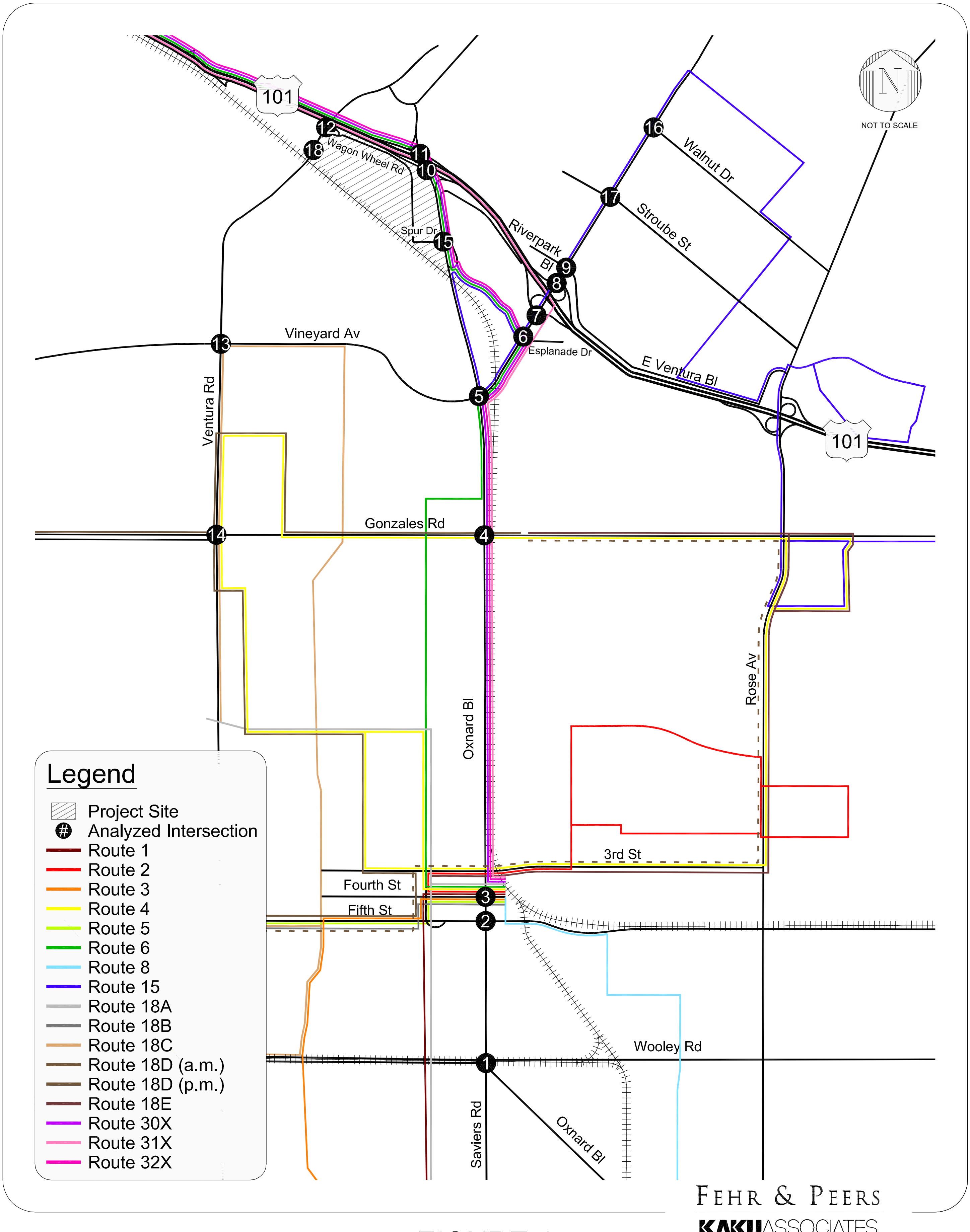


FIGURE 4
STUDY AREA AND TRANSIT SERVICE

- GTC Route 32X: OTC-Ojai Express – Route 32X provides service between Ojai Park & Ride and the OTC (an alternative northern path to route 31X). The route travels along Oxnard Boulevard and Vineyard Avenue in the study area with stops along Esplanade Drive providing access near the proposed project. The route operates one trip in the morning and one trip in the afternoon Monday through Friday with limited stops.

Routes Providing Service within the Study Area

- GCT Route 1: Port Hueneme – Route 1 is a north-south route that travels from the OTC to Port Hueneme Monday through Friday. The route travels along C Street in the study area and provides service in both clockwise (Route 1A) and counter-clockwise (Route 1B) directions. Each service direction provides headways of 40 minutes throughout the day. The route runs Monday through Friday.

- GCT Route 2: Colonia – Route 2 is an east-west route that travels from the OTC through the eastern neighborhoods of Oxnard. The route travels in the clockwise direction through the neighborhoods and provides daily service with 40-minute headways throughout the day.

- GCT Route 3: Southside – Route 3 is a north-south route that travels from the OTC through the southern neighborhoods of Oxnard, including the Centerpoint Mall. The route travels in a clockwise direction through the neighborhoods providing daily service with 40 minute headways throughout the day.

- GCT Route 4: North Oxnard – Route 4 is primarily an east-west route that travels in a loop from the OTC through the northern neighborhoods of Oxnard, including stops at St. Johns Regional Medical Center, Monday through Friday. The route travels along Ventura Road and Gonzales Road in the study area and provides service in both clockwise (Route 4A) and counter-clockwise (Route 4B) directions. Route 4A provides 40-minute headways while Route 4B provides approximately 50-minute headways throughout the day.

- GCT Route 5: Parkwest – Route 5 is an east-west route that travels from the OTC through the southwestern neighborhoods of Oxnard. The route travels in a clockwise direction with 40-minute headways throughout the day Monday through Friday. More limited service is provided on Saturday.

- GCT Route 8: Oxnard College – Route 8 provides service between the OTC and the C Street Transfer Center at Centerpoint Mall via Oxnard College. The route provides service through the neighborhoods in southeast Oxnard with 40-minute headways throughout the day Monday through Friday. More limited service is provided on Saturday and Sunday.

- GCT Route 18: Northside Parkwest Tripper – Route 18 provides service to Oxnard High School, Pacifica High School, and Ventura High School. Routes 18A-C provide service to Oxnard High School through the study area. Routes 18D-E provide service to Pacifica High School through the study area. Route 18F provides service to Ventura High School north of the study area. Each route operates once in the morning and once in the afternoon.

- GTC Route 31X: Ojai-Government Center/OTC Express – Route 31X provides service between Ojai Park & Ride and the OTC. The route travels along Oxnard Boulevard and Vineyard Avenue in the study area. The route operates one trip in the morning and one trip in the afternoon with limited stops Monday through Friday.

Regional Routes Serving Oxnard

- Metrolink Ventura County Line – The Metrolink Ventura County Line travels from Ventura County to Union Station in downtown Los Angeles. This line travels to Oxnard, Simi Valley, Northridge, Van Nuys and Glendale and with a stop at Bob Hope Airport. The station in Oxnard is at the OTC.

- Amtrak Pacific Surfliner Line – The Amtrak Pacific Surfliner provides rail service along the Pacific coast of southern California between Paso Robles and San Diego. The route mirrors the route taken by the Metrolink Ventura County line between Oxnard and Los Angeles. The station in Oxnard is at the OTC.

III. FUTURE TRAFFIC CONDITIONS

In order to evaluate the potential impact of the proposed project on the local street system, it was necessary to develop estimates of future traffic conditions both with and without the project. Three scenarios were analyzed to determine the future impact of the project. First, background growth was applied to the existing volumes and the project generated traffic was added to these volumes representing the existing plus project (2014) conditions. Second, traffic generated from surrounding proposed projects was added to the background growth to develop the existing plus pending projects (2014) conditions. Finally, the project traffic was added to the background with pending projects traffic to determine the existing plus pending plus project (2014) conditions.

FUTURE TRANSPORTATION IMPROVEMENTS

The proposed transportation system changes projected to occur between now and 2014 were included in the 2014 traffic analyses. The improvements to the study intersections are listed in detail below:

- <u>Oxnard Boulevard & Saviers Road & Wooley Road</u> – A striping modification to the eastbound approach of Wooley Road will be made to change the lane geometry from left, through, shared through/right, to shared through/left, through, right.

- <u>Oxnard Boulevard & Gonzales Road</u> – A third eastbound through lane will be added to Gonzales Road by converting the dedicated right-turn lane into a shared through/right lane. A third receiving lane will be added to the east side of the intersection. The existing bicycle lane will be not be altered by this change to the intersection.

- <u>Vineyard Avenue & Riverpark Boulevard & Ventura Boulevard</u> – Southeast-bound Riverpark Boulevard will be expanded from one lane to three lanes. The laneage will be one shared through/left lane and two right-turn lanes. A second left-turn lane will be added to northeast-bound Vineyard Avenue. In addition, the southwest-bound right lane on Vineyard Avenue will be converted to a shared through/right lane. An additional receiving lane will be added to Vineyard Avenue south of Riverpark Boulevard & Ventura Boulevard to accommodate the additional through lane.

- US 101 Northbound Off-Ramp & Oxnard Boulevard – The right turn from the US 101 northbound off-ramp will be converted to a free flow/channelized movement.

- Vineyard Avenue & Stroube Street – A third through lane will be added to southwest-bound Vineyard Avenue. An additional receiving lane will be added to Vineyard Avenue south of Stroube Street to accommodate the additional through lane.

- Ventura Road & Vineyard Avenue – An additional southbound through lane will be added to Ventura Road resulting in one left lane, two through lanes, and a through/right lane.

FUTURE TRAFFIC PROJECTIONS

Future traffic projections reflect growth in traffic from three primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, traffic generated by specific projects in the vicinity of the study area, and traffic generated by the project. These factors are described below.

Ambient Areawide Traffic Growth

City of Oxnard staff indicates that traffic volumes in the vicinity of the study area have increased at a rate of 1.5% per year. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate, at least through the year 2014. With the assumed completion date of 2014, the 2008 traffic volumes were adjusted upward by 9% to reflect areawide regional growth in addition to the planned developments in the vicinity of the study area.

Pending Project Traffic Generation and Assignment

Part of background traffic growth is the traffic generated by related, or pending, projects. Pending projects are planned developments to be completed in the same timeframe as the proposed project and are considered in terms of the extent of growth, location of growth, and origins/destinations of trips.

Given the large study area for this proposed project, information on cumulative projects was collected from the City of Oxnard, Ventura County, and the City of Ventura. A four-mile radius was selected as the boundary for pending project inclusion in the study. A total of 69 related projects were identified within the City of Oxnard. In addition, one project in unincorporated Ventura County was identified that affects the study area. Due to the distance from the project site and lack of connectivity on local roadways between the Cities of Oxnard and Ventura, no City of Ventura projects were identified as having an impact on the study area. The related projects included in the study are summarized in Table 4 and their locations are illustrated in Figure 5.

Trip generation estimates for each of the pending projects listed in Table 4 were developed. For most of the projects, *Trip Generation, 7th Edition* (Institute of Transportation Engineers (ITE), 2003) was used to determine trip generation rates. The number of trips generated by the RiverPark project were taken directly from *Traffic Analysis for the RiverPark Specific Plan Development* (Crain & Associates, 2001). Combined, the pending projects from the City of Oxnard and Ventura County are estimated to generate approximately 125,701 daily vehicles trips, of which approximately 7,921 vehicles per hour (vph) will occur during the morning peak hour and approximately 12,842 vph during the evening peak hour.

The geographic distribution of the traffic generated by the cumulative projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed developments are drawn, and the location of the projects in relation to the surrounding street system. The trip generation estimates were assigned to the local street system using the trip distribution factors described above. The trip distribution for the RiverPark project is consistent with the distribution used in the *Traffic Analysis for the RiverPark Specific Plan Development.*

The volumes generated from the pending projects were added to the existing traffic volumes after the adjustment for areawide growth to provide existing plus pending projects (2014) volumes at the study intersections. These AM and PM peak hour volumes are illustrated in Figure 6.

TABLE 4

TRIP GENERATION ESTIMATES FOR PENDING PROJECTS

ID	PROJECT NAME	PROJECT LOCATION	CROSS STREET	LAND USE	NET DAILY	TRIP GENERATION ESTIMATES					
						A.M. PEAK HOUR			P.M. PEAK HOUR		
						IN	OUT	TOTAL	IN	OUT	TOTAL
City of Oxnard Projects											
R-6	East Village Apartments	2000 E Gonzales Rd	Williams Dr	272 apartment units	1,785	27	110	137	109	59	168
R-8	Colonial House Mixed Use	747 N Oxnard Blvd	Roderick Ave	40 residential units & 16,000 sf commercial	978	4	16	20	35	33	68
R-14	Reardon Apartments	465 N A St	Deodar Ave	8 apartments, 2 commercial spaces	231	1	3	4	8	8	16
R-15	Oneida Courts	N Ventura Rd	Devonshire Dr	4 detached single-family homes	38	1	2	3	3	1	4
R-16	Ventura/Vineyard	1801 W Vineyard Ave	Ventura Rd	126 cluster homes, 75 detached single-family homes	1,456	23	88	111	92	50	142
R-21	Mendoza Units	128 N Hayes Ave	1st St	2 detached single-family homes	19	0	1	1	1	1	2
R-22	Press Courier Lofts	300 W Ninth St	B St	Convert existing 52,000 sf industrial to 52 condos	(58)	(38)	13	(25)	12	(36)	(24)
R-23	Habitat for Humanity - Duplex	315 Cooper Rd	Hayes St	Duplex	12	0	1	1	1	0	1
R-24	Arbor View (Mira Loma)	1600 W Fifth St	Mira Loma Circle	103 apartments, 188 townhomes	1,871	25	112	137	114	58	172
R-26	Courtyard Vineyard	2600 N Vineyard Ave	Olive St	259 condo units, 39 affordable units	1,746	22	109	131	104	51	155
R-28	Gateway Walk	1250 S Oxnard Blvd	Wooley Rd	190 residential units (141 townhomes, 49 single-family, 7,000 sf commercial)	1,295	20	79	99	80	43	123
R-36	Doris "7"	333 F St	3rd St	7 detached single family homes	67	1	4	5	4	3	7
R-37	Sycamore Gardens	333 F St	3rd St	40 senior adult condos	139	1	2	3	3	2	5
R-42	Sycamore Senior Village	333 F St	3rd St	229 senior housing units	797	8	10	18	15	10	25
R-57	North Shore	198 S Harbor Blvd	Teal Club Rd	292 detached single-family homes	2,787	53	160	213	177	104	281
R-64	Single Family Dwelling	525 E First St	Garfiled Ave	Single-family home	10	0	1	1	1	0	1
C-1	Vineyard Avenue	2805 Vineyard Ave	Stroube St	Demolish existing building and replace with 9,000 sf retail	399	6	4	10	11	14	25
C-5	Shops at Vineyard	244 Vineyard Ave	Oxnard Blvd	Demolish existing auto service station, construct 20,000 sf retail	486	(10)	(2)	(12)	6	4	10
C-6	Rose Ranch	Rose Ave	Gonzales Rd	Shopping center with Fresh & Easy and Walgreens	2,373	48	32	80	116	114	230
C-7	Cantera Stone & Ornamental Landscape Sales Yard	3400 N Ventura Blvd	Del Norte Blvd	Outdoor landscape ornament & display	Minimal Trip Generation						
C-10	Walgreens	481 S Ventura Rd	5th St	Demolish existing 16,000 sf commercial building to construct 14,000 sf Walgreens w/ drive-thru	547	11	10	21	30	30	60
C-11	Ventura Orthopedic	2231 Wankel Way	Lombard St	Construct new 18,000 sf office building	650	35	9	44	18	49	67
C-13	Oralia's Bakery	942 W Wooley Rd	S H St	Two story commercial bakery	38	6	2	8	3	5	8
C-15	Oxnard Crossroads	Ventura Blvd	Cortez St	Two new commercial buildings (11,000 sf retail)	488	7	4	11	13	17	30
C-16	Radio Lazer	S A St	Oxnard Blvd	Addition of 5 story (69,000 sf) office building	1,003	123	17	140	27	130	157
C-20	Homewood Suites	1950 Solar Dr	Gonzales Rd	4 story hotel with 129 guest suites	632	27	22	49	23	28	51
C-21	Oxnard Boulevard & Saviers Shopping Center	1117 S Oxnard Blvd	Saviers Rd	28,000 sf of drug store, retail, and fast-food drive-thru	3,282	110	98	208	129	128	257
C-27	Rancho Victoria	3600 W Fifth St	Victoria Ave	49,000 sf of retail	2,104	31	20	51	88	96	184
C-30	Retail	1111 S C St	Wooley Rd	5,000 sf of retail (4 tenants)	222	3	2	5	6	8	14
C-31	Trinity Baptist Church	450 N Rose Ave	Camino Del Sol	Construct church building (19,000 sf) on vacant 2.5 acres	173	7	6	13	7	6	13
C-33	Paseo Azteca	618 S A St	6th St	7,000 sf retail building with 10 tenants	310	4	3	7	8	11	19
C-34	River Park - Gateway	2775 N Ventura Rd	Town Center Dr	75,000 sf of office building	1,069	131	18	149	28	135	163
C-35	Centennial Plaza	431 S A St	Fifth St	5,000 sf of retail (4 tenants)	222	3	2	5	6	8	14
I-2	Industrial Building	1100 E Wooley Rd	Richmond Ave	142,000 sf light industrial building	990	115	16	131	17	122	139
I-11	Teal Club Self Storage	6100 S Victoria Ave	Teal Club Rd	Self-storage building, industrial condos, & 16,000 sf of retail (80,000 sf total)	1,021	30	6	36	27	57	84
I-15	Small Industrial Buildings	Sunkist Cr	Oxnard Blvd	8,000 sf for 3 industrial buildings	56	6	1	7	1	7	8
I-16	Lanet Shaw Architects	1601 Ives ave	Oxnard Blvd	30,000 sf for 2 industrial buildings	209	24	3	27	4	26	30
I-17	Rose & Eastman	Eastman Ave	Rose Ave	33,000 sf industrial building	230	27	4	31	4	28	32
I-18	Dandy Cooling/Duda Famrs	860 Pacific Ave	Mountain View Ave	66,000 sf produce cooling/distribution warehouse	327	24	5	29	8	23	31
I-21	Oxnard Arts	2201 Statham Blvd	Sunkist Cir	Convert existing building to 18 live work condos	Minimal Net Trip Generation						
I-22	Sunbelt Professional Center	2401 E Gonzales Rd	Rice Ave	107,000 sf for 2 office buildings	1,405	174	24	198	34	165	199
River Park (R-9-11, R-38-41, R-47-48, R-50-53, R-59-62, C-22-24, C-35)[1]		Oxnard Blvd	Town Center Dr	Large scale residential and commercial development	94,174			5,807			9,859
Ventura County Projects								0			0
CO-1	El Rio Self-Storage	3913 Vineyard Ave	Montgomery Ave	47,000 sf for self-storage units	118	4	3	7	6	6	12
Total Proposed Project Trips					**125,701**			**7,921**			**12,842**

Notes:

[1] Trip generation and distribution for River Park based on *River Park Specific Plan TIS* , Crain & Associates, 2001.

[2] All other trip generation and directional distribution estimates developed based on *Trip Generation, 7th Edition,* Institute of Transportation Engineers, 2003.

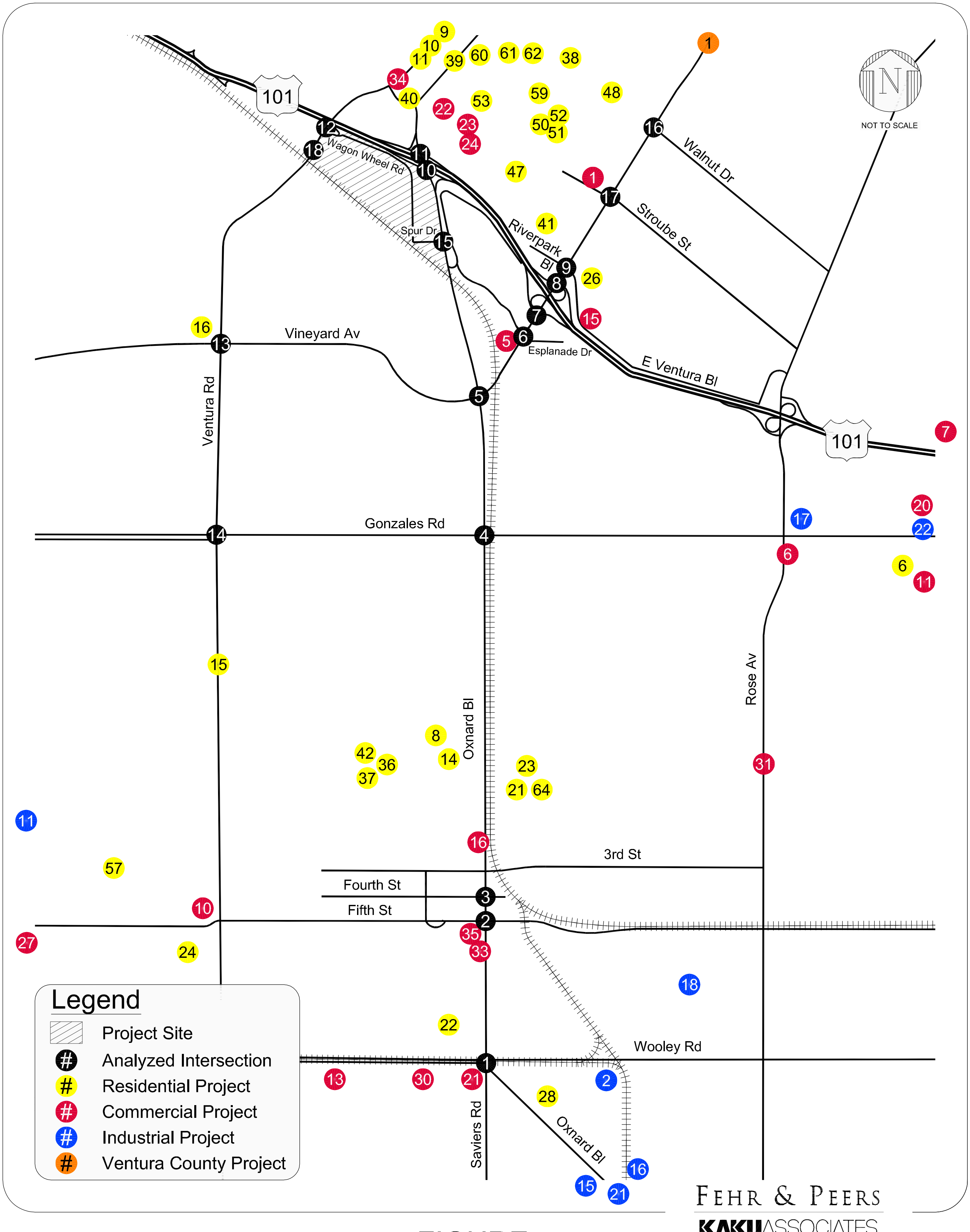
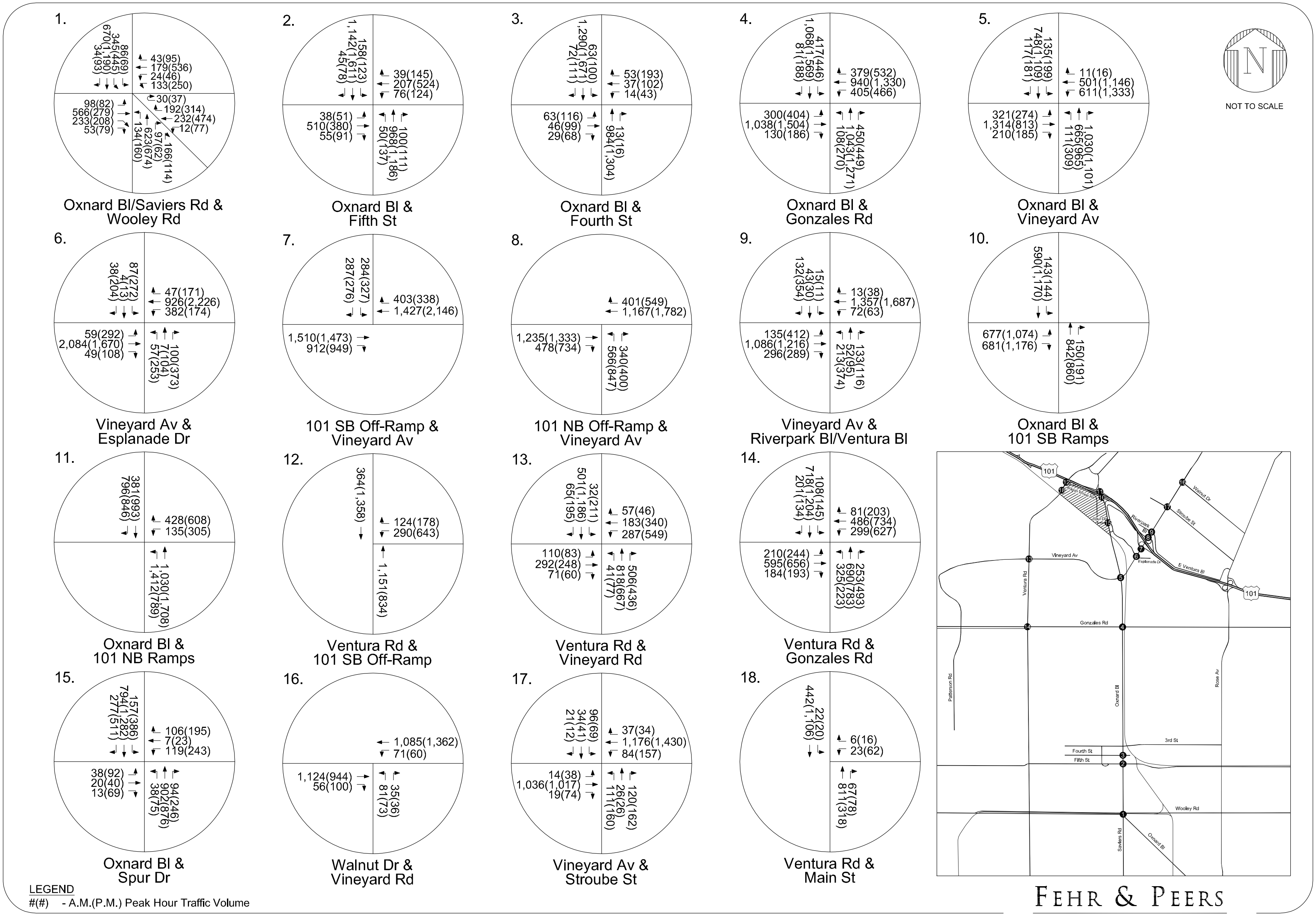


FIGURE 5
PENDING PROJECT LOCATIONS



FEHR & PEERS

KAKU ASSOCIATES

FIGURE 6

2014 EXISTING PLUS PENDING PROJECTS PEAK HOUR TRAFFIC VOLUMES

Project Traffic Volumes

The development of traffic generation estimates for the proposed project involves the use of the three-step process similar to that discussed above for the cumulative projects.

Project Traffic Generation*.* Trip generation rates from *Trip Generation, 7th Edition* were used to develop trip generation estimates for the proposed project for both the existing and proposed uses. The results are summarized in Table 5. Because the proposed project site contains existing land uses, vehicles traveling to and from the site are already accounted for in the existing traffic counts. Therefore, the trip generation estimates for the existing land uses were removed from the trip generation estimates for the proposed project to obtain net new vehicle trips. The proposed project would generate approximately 6,816 net daily vehicle trips: 439 and 462 net vehicle trips in the AM and PM peak hours, respectively.

The only internal trip reductions assumed for the proposed development were live/work trip credits for the live/work spaces. The live/work trip credits assumed that 50% of morning and 35 percent of afternoon trips are home-to-work trips and that 50% of those trips would be internal to the site. The minimal internal trip reductions resulted in a conservative estimate of the number of trips accessing the project site.

Project Traffic Distribution. The geographic distribution of the traffic generated by the proposed project depends on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed development are drawn, and the location of the project in relation to the surrounding street system.

The City of Oxnard's Travel Demand Model was used to develop the project trip distribution. The model is continuously refined to include the latest constructed developments and street network improvements in the City of Oxnard in an effort to maintain the accuracy of the model's trip assignments. The distribution pattern for this project is illustrated in Figure 7.

TABLE 5
OXNARD VILLAGE PROJECT TRIP GENERATION

LAND USE	Trip Generation Rates [a]										Estimated Trip Generation						
					A.M. Peak Hour			P.M. Peak Hour			Weekday Daily Trips	A.M. Peak Hour Trips			P.M. Peak Hour Trips		
	ITE Code	Size	Units	Daily Rate	Rate	% Inbound	% Outbound	Rate	% Inbound	% Outbound		In	Out	Total	In	Out	Total
Proposed Uses																	
Residential Condominiums	230	932	du	5.86	0.44	17%	83%	0.52	67%	33%	5,462	70	340	410	325	160	485
Residential Condominiums (High-Rise)	232	442	du	4.18	0.34	19%	81%	0.38	62%	38%	1,848	29	121	150	104	64	168
Residential Apartments	220	112	du	6.72	0.51	20%	80%	0.62	65%	35%	753	11	46	57	45	24	69
Live/Work:																	
Residential Space	230	14	du	5.86	0.44	17%	83%	0.52	67%	33%	82	1	5	6	5	2	7
Less Live-Work Credit [b]												*	*(1)*	*(1)*	*(1)*	*	*(1)*
Work Space	710	4	ksf	11.01	1.55	88%	12%	1.49	17%	83%	44	5	1	6	1	5	6
Less Live-Work Credit [b]												*(1)*	*	*(1)*	*	*(1)*	*(1)*
Retail Space	820	46.4	ksf	42.94	1.03	61%	39%	3.75	48%	52%	1,992	29	19	48	84	90	174
Parks & Recreation Center	SANDAG[c]	3.0	acres	50	0.13	50%	50%	0.09	50%	50%	150	*	*	*	*	*	*
Subtotal											**10,331**	**144**	**531**	**675**	**563**	**344**	**907**
Existing Uses to be Removed																	
Mobile Homes	240	169	du	4.99	0.44	0.20	0.80	0.59	0.62	0.38	843	15	59	74	62	38	100
Bowling Alley^	437	32	lanes	33.33	3.13	0.60	0.04	3.54	0.65	0.35	1,067	n/a	n/a	n/a	73	40	113
Used Car Dealer	841	1.6	ksf	33.34	2.05	0.74	0.26	2.64	0.39	0.61	53	2	1	3	2	2	4
Church	560	17.3	ksf	9.11	0.72	0.54	0.46	0.66	0.52	0.48	158	6	6	12	6	5	11
Ice Skating Rink	465	66.6	ksf	n/a	n/a	n/a	n/a	2.36	0.45	0.55	n/a	n/a	n/a	n/a	71	86	157
Wharehousing	188	81.9	ksf	4.96	0.45	0.82	0.18	0.47	0.25	0.75	406	30	7	37	10	28	38
Adult Day Care Center^^	565	45.0	Emp	28.13	4.91	0.53	0.47	5.19	0.47	0.53	633	59	52	111	n/a	n/a	n/a
Pet Boarding		1.0	ksf									**Trip generation estimated to be minimal**					
Specialty Retail	814	8.00	ksf	44.32	n/a	n/a	n/a	2.71	0.44	0.56	355	n/a	n/a	n/a	10	12	22
Subtotal											**3,515**	**112**	**125**	**237**	**234**	**211**	**445**
NET INCREMENTAL TRIPS											**6,816**	**33**	**406**	**439**	**329**	**133**	**462**

Notes:

ksf = 1,000 square feet. du = dwelling units. Emp - Employees. n/a = not applicable.

^ Wagon Wheel Bowl Hours: noon-11 pm, Leagues start at 6 pm (switched ITE P.M. inbound/outbound percentages to account for majority being inbound).

^^ Adult Day Care - Based on child day care ITE rate. Interviewed an employee during site visit who indicated 33 staff and 12 volunteers and closing time of 4:30 pm. Trips reduced by 50% based on discussions with the City of Oxnard staff, day care center staff, and the different modes of arrival for the staff and patrons.

[a] Source: *Trip Generation, 7th Edition*, Institute of Transportation Engineers, 2003 unless otherwise noted.
[b] Assumes 50% of morning and 35% of afternoon trips are home-to-work trips. Discounts 50% of those trips for onsite travel.
[c] San Diego Association of Governments Trip Generation Manual, May 2003.

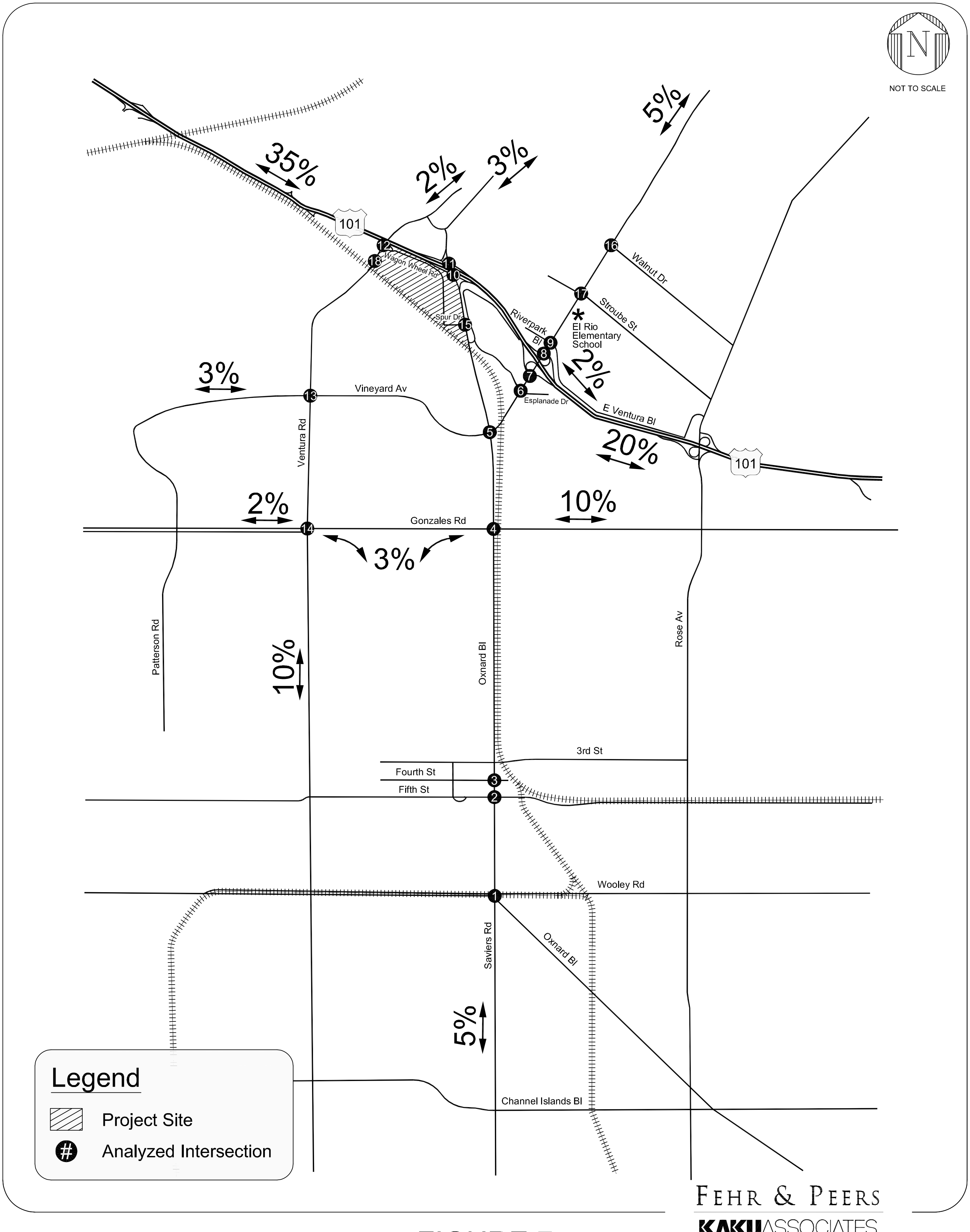


FIGURE 7
PROJECT TRIP DISTRIBUTION

Project Traffic Assignment. The traffic expected to be generated by the proposed project was assigned to the street network using the distribution pattern shown in Figure 7. Figure 8 illustrates the assignment of the net trips associated with the Oxnard Village Development to the study intersections for weekday AM and PM peak hour conditions.

EXISTING PLUS PROJECT TRAFFIC PROJECTIONS

The project-generated traffic volumes from Figure 8 were added to the existing counts with 1.5% growth per year to 2014 to develop the 2014 existing plus project peak hour traffic volumes shown in Figure 9.

EXISTING PLUS PENDING PLUS PROJECT TRAFFIC PROJECTIONS

The project-generated traffic volumes from Figure 8 were added to the 2014 existing plus pending projects traffic volumes illustrated in Figure 6 to develop the 2014 existing plus pending plus project peak hour traffic volumes shown in Figure 10.

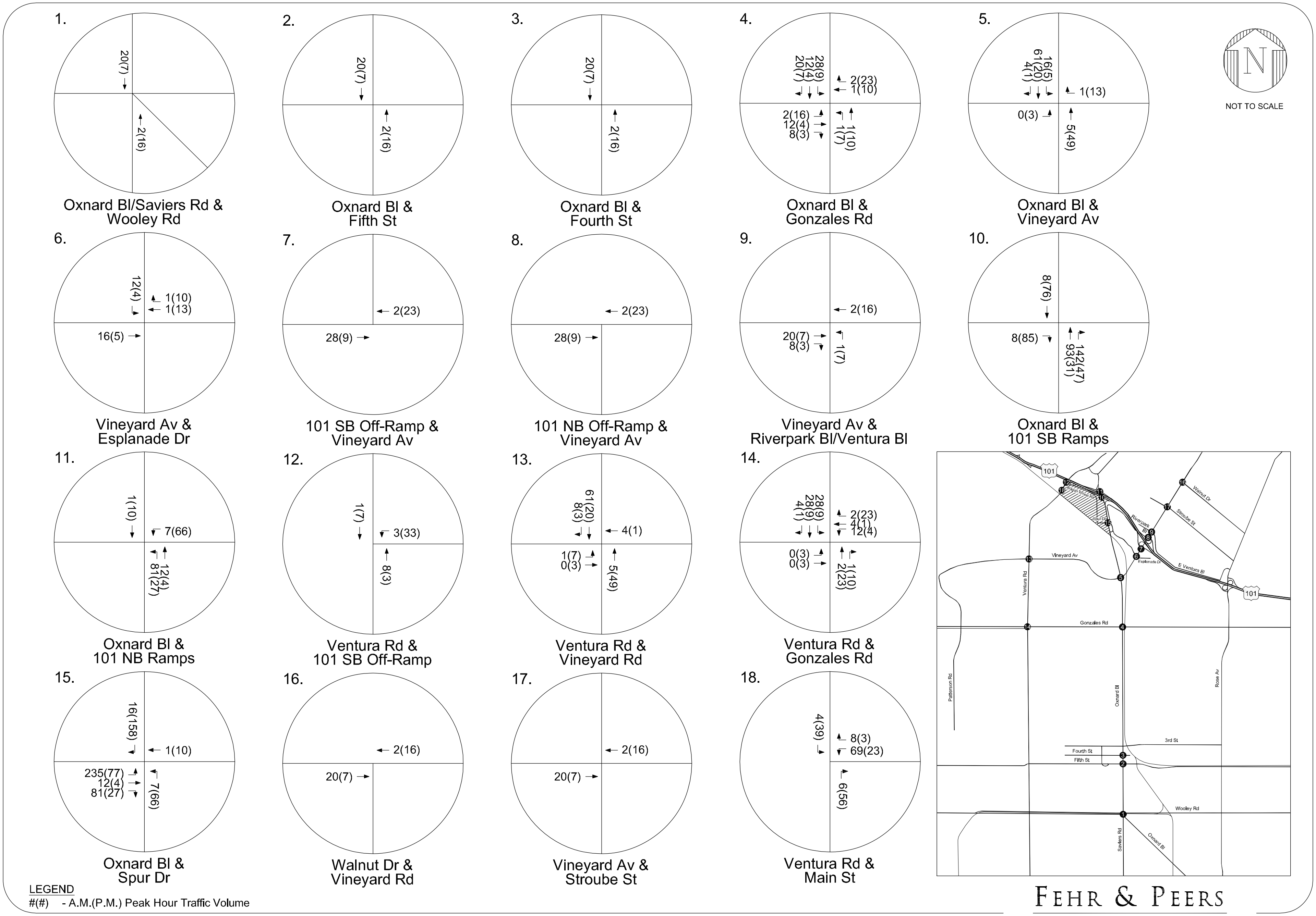


FIGURE 8
PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

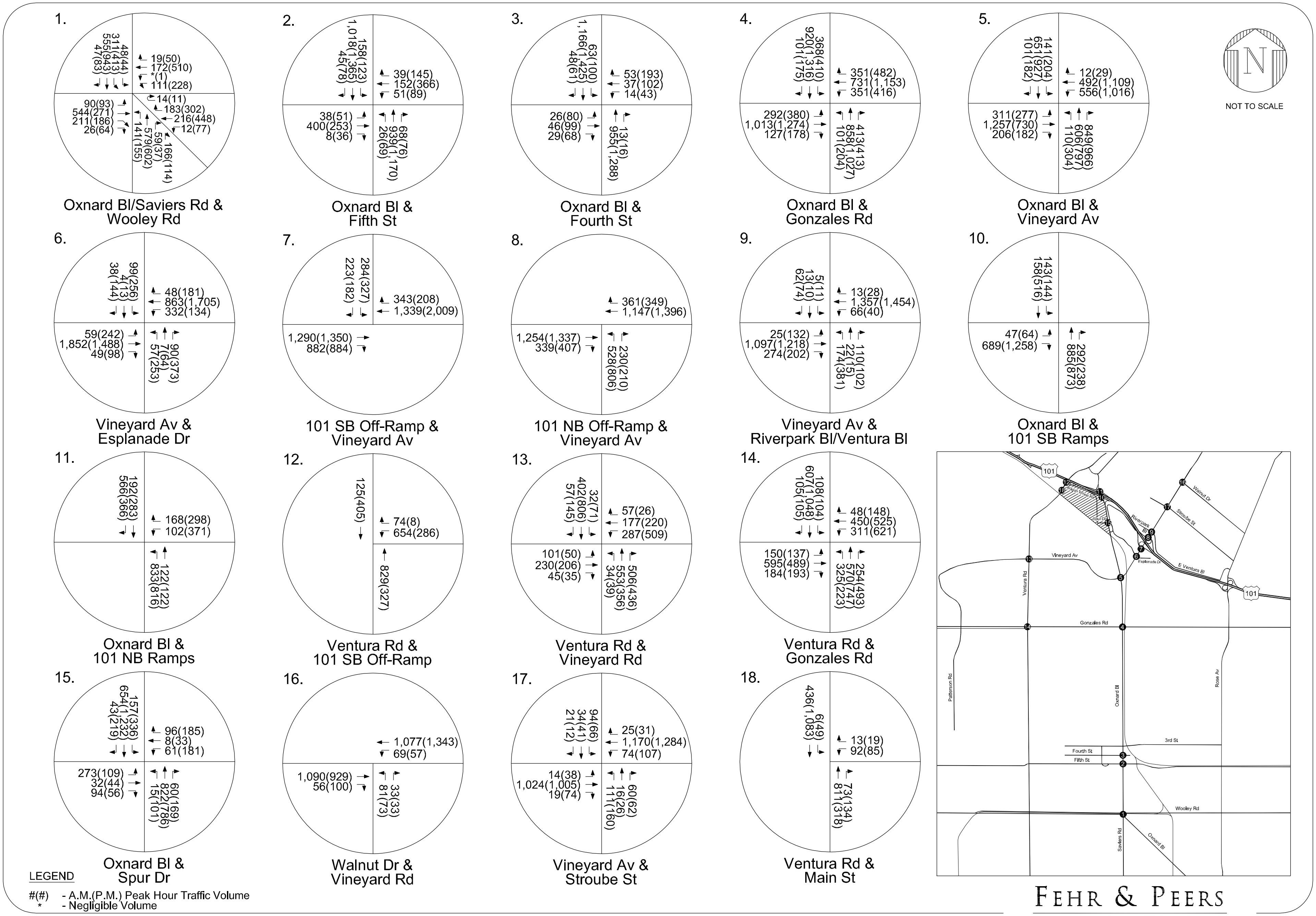


FIGURE 9
2014 EXISTING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

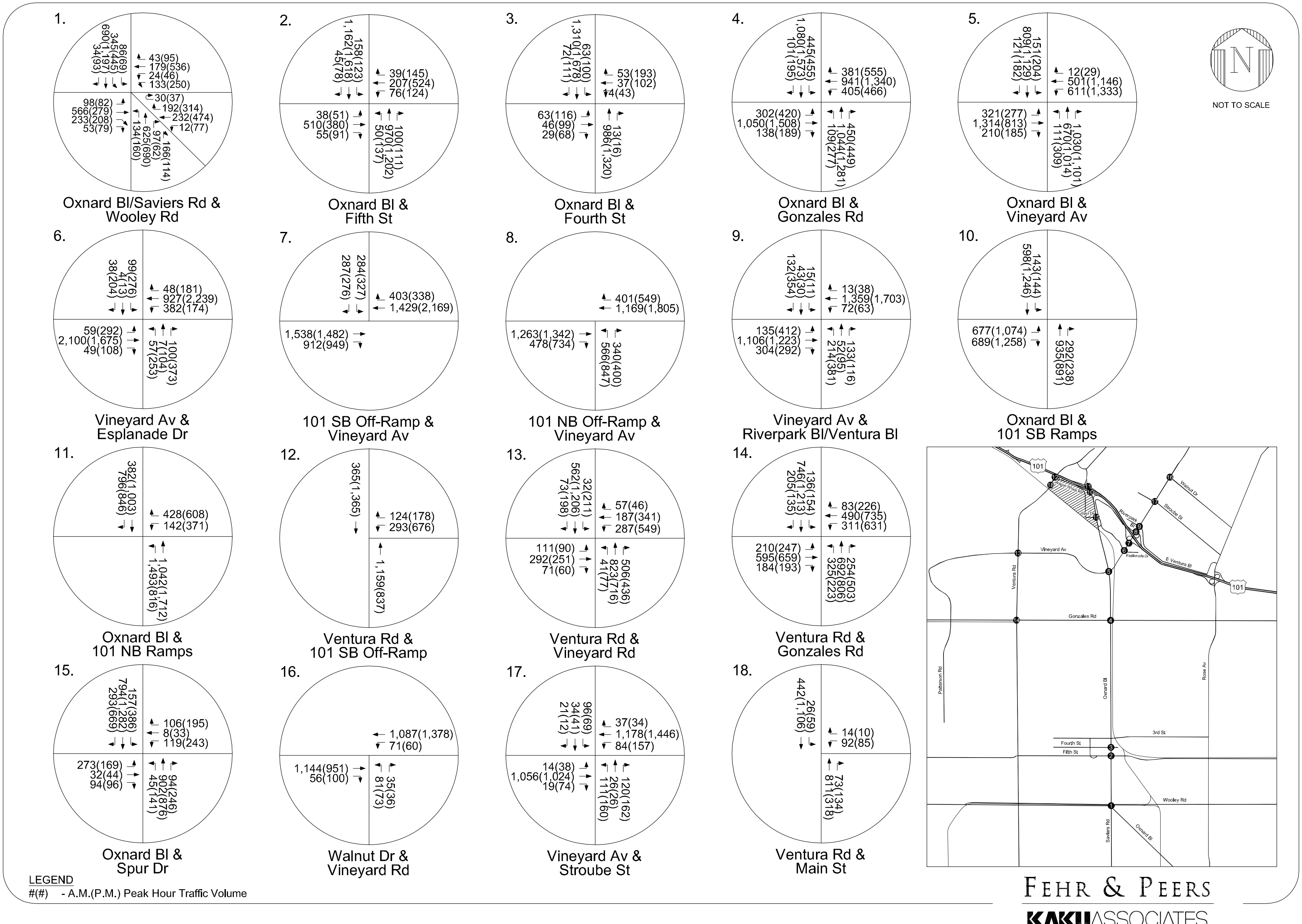


FIGURE 10
2014 EXISTING PLUS PENDING PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

IV. TRAFFIC IMPACT ANALYSIS

The traffic impact analysis compares the projected LOS at each study intersection under the existing plus pending projects (2014) and the existing plus pending plus project (2014) conditions to estimate the incremental increase in the V/C ratio caused by the proposed project. The LOS difference between these two scenarios is used to determine if the project creates a significant impact at each intersection based on the City of Oxnard's significant impact criteria. In addition, the LOS results for the existing plus project (2014) conditions are provided even though they are not used to determine significant impacts.

INTERSECTION SIGNIFICANT TRAFFIC IMPACT CRITERIA

The City's evaluation criteria for determining project impacts is based on the change in V/C between background traffic conditions (existing plus pending projects) and background plus project conditions. The City has provided the following guidelines to assist in determining impact locations in traffic studies:

- All traffic studies for the City of Oxnard must include a list of intersections where the project degrades the V/C numeric value by 0.02 or more. This list must include intersections that operate at an LOS C or worse under background traffic conditions. Intersections that operate at an LOS A or B with and without the project do not need to be included in the list.

- For intersections with a V/C increase of 0.02 to 0.039, a list of improvements to mitigate the impact must be presented. However, the City of Oxnard will determine how much participation is necessary from the project developer to mitigate these intersections. If the project will worsen the V/C numeric value by 0.04 or more, the project developer will be responsible for all mitigation measures at that intersection. The mitigation measures should be sufficient to improve the intersection operations to the V/C level identified without the project.

EXISTING PLUS PROJECT (2014) INTERSECTION ANALYSIS

The year 2014 existing plus project traffic volumes (shown in Figure 9) were analyzed to determine the projected LOS for each of the analyzed intersections. This scenario accounts for background traffic growth and the Oxnard Village project, but does not include other projects planned for the area by 2014. Table 6 includes a summary of the existing plus project LOS results and shows that only two intersections operate below the City's LOS C threshold.

The Oxnard Boulevard & Saviers Road & Wooley Road and the Oxnard Boulevard & Vineyard Avenue intersections both operate at LOS D in the PM peak hour under the existing plus project (2014) conditions. The addition of the project and background traffic growth degrades the LOS of this intersection beyond LOS D.

The Oxnard Boulevard & Vineyard Avenue intersection currently operates with an V/C of 0.76 which is near the dividing point between LOS C and LOS D. Therefore, it is not surprising that the addition of the project would drop the LOS at this intersection from a low LOS C to LOS D.

EXISTING PLUS PENDING PROJECTS (2014) INTERSECTION TRAFFIC ANALYSIS

The year 2014 existing plus pending projects traffic volumes (shown in Figure 6) were analyzed to determine the projected LOS for each of the analyzed intersections. These LOS values will serve as the baseline for determining project impacts as this scenario includes background traffic growth and traffic from surrounding projects, but does not include traffic from the Oxnard Village. Table 6 includes a summary of the existing plus pending projects LOS results. As indicated, seven intersections are projected to operate below the City's LOS C threshold during the PM peak hour:

- Oxnard Boulevard & Saviers Road & Wooley Road
- Oxnard Boulevard & Fifth Street
- Oxnard Boulevard & Gonzales Avenue
- Oxnard Boulevard & Vineyard Avenue
- Esplanade Drive & Vineyard Avenue

TABLE 6
2014 PROJECT IMPACT DETERMINATION INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	Peak Hour	Existing plus Project		Existing plus Pending Projects		Existing plus Pending plus Project				Existing plus Pending plus Project with Mitigation			
			V/C[1] or Delay	LOS	V/C[1] or Delay	LOS	V/C[1] or Delay	LOS	Project Increase in V/C	Significant Project Impact?	V/C[1] or Delay	LOS	Project Increase in V/C	Significant Project Impact?
1.	Oxnard Boulevard & Saviers Road & Wooley Roac	A.M.	0.69	B	0.78	C	0.79	C	0.01	No				
		P.M.	0.90	D	1.05	F	1.05	F	0.00	No				
2.	Oxnard Boulevard & Fifth Streel	A.M.	0.57	A	0.66	B	0.66	B	0.00	No				
		P.M.	0.76	C	0.97	E	0.98	E	0.01	No				
3.	Oxnard Boulevard & Fourth Streel	A.M.	0.44	A	0.49	A	0.49	A	0.00	No				
		P.M.	0.61	B	0.72	C	0.72	C	0.00	No				
4.	Oxnard Boulevard & Gonzales Roac	A.M.	0.67	B	0.72	C	0.73	C	0.01	No				
		P.M.	0.78	C	0.91	E	0.92	E	0.01	No				
5.	Oxnard Boulevard & Vineyard Avenue	A.M.	0.65	B	0.68	B	0.69	B	0.01	No	0.68	B	0.00	No
		P.M.	0.84	D	0.90	D	0.92	E	0.02	**Yes**	0.84	D	-0.06	No
6.	Esplanade Drive & Vineyard Avenue	A.M.	0.55	A	0.61	B	0.62	B	0.01	No				
		P.M.	0.73	C	0.85	D	0.85	D	0.00	No				
7.	US 101 SB Ramps & Vineyard Avenue	A.M.	0.66	B	0.69	B	0.69	B	0.00	No				
		P.M.	0.66	B	0.72	C	0.72	C	0.00	No				
8.	US 101 NB Ramps & Vineyard Avenue	A.M.	0.52	A	0.58	A	0.58	A	0.00	No				
		P.M.	0.69	B	0.82	D	0.83	D	0.01	No				
9.	Riverpark Blvd & Vineyard Avenue	A.M.	0.40	A	0.45	A	0.46	A	0.01	No				
		P.M.	0.49	A	0.68	B	0.69	B	0.01	No				
10.	Oxnard Boulevard & US 101 SB Ramps	A.M.	0.19	A	0.40	A	0.40	A	0.00	No				
		P.M.	0.20	A	0.70	C	0.73	C	0.03	**Yes**				
	HCM Analysis[2]	P.M.	7 sec	A	18 sec	B	19 sec	B	1 sec	No	18 sec	B	0 sec	No
11.	Oxnard Boulevard & US 101 NB Ramps	A.M.	0.35	A	0.59	A	0.62	B	0.03	No	0.57	A	-0.02	No
		P.M.	0.53	A	0.73	C	0.77	C	0.04	**Yes**	0.65	B	-0.08	No
12.	Ventura Road & Wagon Wheel Road	A.M.	0.35	A	0.45	A	0.45	A	0.00	No				
		P.M.	0.33	A	0.63	B	0.64	B	0.01	No				
13.	Ventura Road & Vineyard Avenue	A.M.	0.47	A	0.49	A	0.49	A	0.00	No				
		P.M.	0.47	A	0.61	B	0.63	B	0.02	No				
14.	Ventura Road & Gonzales Roac	A.M.	0.63	B	0.70	B	0.71	C	0.01	No				
		P.M.	0.73	C	0.86	D	0.87	D	0.01	No				
15.	Oxnard Boulevard & Main Street (Spur Drive)	A.M.	0.41	A	0.42	A	0.58	A	0.16	No	0.37	A	-0.05	No
		P.M.	0.50	A	0.75	C	0.89	D	0.14	**Yes**	0.63	B	-0.12	No
16.	Walnut Drive & Vineyard Avenue	A.M.	0.47	A	0.49	A	0.49	A	0.00	No				
		P.M.	0.42	A	0.43	A	0.43	A	0.00	No				
17.	Stroube Street & Vineyard Avenue	A.M.	0.55	A	0.60	A	0.61	B	0.01	No				
		P.M.	0.66	B	0.70	B	0.70	B	0.00	No				
18.	Ventura Road & Main Street (Village Parkway Drive	A.M.	0.25	A	0.21	A	0.26	A	0.05	No				
		P.M.	0.39	A	0.39	A	0.40	A	0.01	No				

Notes:
1 V/C ratios based on ICU calculation procedures outlined in the Ventura County CMP
2 HCM analysis conducted for PM peak at US 101 SB Ramps/Oxnard Boulevard to capture signal operational impacts. HCM LOS based on delay, reported as average delay per vehicle in seconds.

- US 101 Northbound Ramps & Vineyard Avenue
- Ventura Road & Gonzales Road

None of the intersections operate below the threshold during the AM peak hour.

Five of the remaining intersections operate at LOS C during the PM peak hour and six intersections operate at LOS A or B during both peak hours under the 2014 existing plus pending projects conditions.

EXISTING PLUS PENDING PLUS PROJECT (2014) INTERSECTION TRAFFIC ANALYSIS

The year 2014 existing plus pending plus project traffic volumes (shown in Figure 9) were analyzed to determine the projected LOS for each of the analyzed intersections. These LOS values are used to determine project impacts. This scenario includes background traffic growth, traffic from surrounding projects, and traffic from the Oxnard Village. Table 6 includes a summary of the existing plus pending plus project LOS results. In addition, Table 6 provides the difference in V/C between the existing plus pending and the existing plus pending plus project conditions. This difference is used to determine which intersections notice a significant impact from the addition of the Oxnard Village project. As indicated, eight intersections operate below the City's LOS C threshold during the PM peak hour under the existing plus pending plus project conditions:

- Oxnard Boulevard & Saviers Road & Wooley Road
- Oxnard Boulevard & Fifth Street
- Oxnard Boulevard & Gonzales Avenue
- Oxnard Boulevard & Vineyard Avenue
- Esplande Drive & Vineyard Avenue
- US 101 Northbound Ramps & Vineyard Avenue
- Ventura Road & Gonzales Road
- Oxnard Boulevard & Main Street (Spur Drive)

Four of the remaining intersections operate at LOS C during the PM peak hour and six intersections operate at LOS A or B during both peak hours under the 2014 existing plus pending plus project conditions.

PROJECT IMPACTS

Using the City's criteria for determining the significance of the project traffic impacts, the proposed project is expected to generate four significant traffic impacts at the following intersections:

- Oxnard Boulevard & Vineyard Avenue
- Oxnard Boulevard & US 101 Southbound Ramps
- Oxnard Boulevard & US 101 Northbound Ramps
- Oxnard Boulevard & Main Street

These intersections were determined to have a significant impact because they have an increase in V/C of 0.02 or more between the 2014 existing plus pending projects and 2014 existing plus pending plus project conditions. All of these intersections operated at LOS C or worse under the baseline (existing plus pending projects) scenario. The project was determined to have the greatest impact on the Oxnard Boulevard & Main Street intersection, which is one of the two access points to the project site.

PROPOSED MITIGATION MEASURES

The mitigation program for the project includes measures to increase the capacity and/or efficiency of the roadway system at impacted locations. Opportunities for physical mitigation measures such as re-striping of intersection approaches to add turn lanes and improving traffic control devices were investigated. The emphasis was to identify physical and/or operational improvements that could be easily implemented. The suggested intersection improvement measures for the significantly impacted intersections are described in detail below and are illustrated in Appendix A.

Oxnard Boulevard & Vineyard Avenue

The critical movements in determining V/C at this location in the future are the northbound and westbound through movements. Based on discussions with the City, the recommended mitigation for this intersection is based on a General Plan improvement that modifies the median on Oxnard Boulevard and reconfigures the northbound and southbound approaches. The mitigation essentially consists of adding one northbound and one southbound through lane. The mitigated northbound configuration would be two left-turn lanes, three through lanes, and two right-turn lanes. The mitigated southbound configuration would be two left-turn lanes, three through lanes, and a shared through/right lane. With the additional northbound and southbound through lanes, the PM peak hour V/C would be 0.84. This would be an V/C improvement of 0.06 from the 2014 existing plus pending projects condition.

Analysis undertaken by the City indicates that this mitigation measure can be implemented without the need to acquire additional right-of-way.

Oxnard Boulevard & US 101 Southbound Off-Ramp

Under the ICU methodology, the project traffic impacts this intersection with a V/C increase of 0.02 in the PM peak hour when the intersection is operating at LOS C. This intersection is expected to operate at an acceptable LOS with the project, but the 0.02 V/C increase warranted further analysis. As there are improvements being made upstream and downstream of this location, the intersection was studied using Highway Capacity Manual (HCM) methodology in order to assess it at a more operational level. The Synchro software was used to conduct the HCM intersection analysis. The HCM analysis takes into consideration the surrounding intersections and signal timings that are not accounted for in a standard ICU analysis.

There are a number of closely-spaced intersections upstream and downstream of Oxnard Boulevard & US 101 Southbound Off-Ramps. In order to better understand this intersection's operation (with the addition of the project) it was analyzed as part of a system that included the following intersections:

- Oxnard Boulevard & US 101 Northbound Off-Ramp
- Oxnard Boulevard & Main Street (Spur)
- Oxnard Boulevard & Vineyard Avenue

Signal timing plans for the aforementioned intersections were obtained from Caltrans and used in the HCM analysis. The analysis was conducted for two scenarios: 2014 existing plus pending projects and 2014 existing plus pending plus project. The results of the existing plus pending projects HCM analysis shows that the intersection is expected to operate at LOS B in the PM peak hour with an average delay of 18 seconds per vehicle.

The existing plus pending plus project analysis incorporated the mitigation measures proposed at the Oxnard Boulevard/ US 101 Northbound Off-Ramp, Oxnard Boulevard/Main Street, and Oxnard Boulevard/Vineyard Avenue intersections. This analysis also assumed the same signal timings as in the existing plus pending projects conditions. With the mitigation measures to the surrounding intersections, the project is shown to have a negligible impact at the Oxnard Boulevard/US 101 Southbound Off-Ramp intersection. The results of the HCM analysis indicates that the intersection will continue to operate at LOS B the PM peak hour with an average delay of 18 seconds per vehicle. The HCM analysis worksheets are included in Appendix D.

Therefore, no mitigation measures are recommended at this intersection as the recent improvements to the intersection and the proposed mitigation measures to the surrounding intersections mean that this intersection will operate at an acceptable LOS.

Oxnard Boulevard & US 101 Northbound Off-Ramp

The project impacts this intersection with an V/C increase of 0.04 in the PM peak hour when the intersection is operating at an LOS C. The critical movement in determining the V/C ratio at this intersection is the left turn from the US 101 Northbound Off-Ramp. The addition of the project creates a significant impact as most of the traffic traveling to the project from northbound US 101 will make this left turn. The addition of a second left-turn lane from the US 101 Northbound Ramp onto Oxnard Boulevard would mitigate the project impact. The left-turn volume with the project is expected to be over 300 vehicles in the PM peak hour, which meets the State Traffic

Manual guidelines for use of a double left-turn lane. With the addition of a second left-turn lane, the intersection would operate at an LOS B in the PM peak hour. As described in Section III, this intersection will be upgraded to include a free right movement from the US 101 Northbound Off-Ramp under the without project condition. Ramp modification and redesign is necessary but it is unlikely that additional right-of-way for would be required. The ramp should be redesigned to California Department of Transportation (Caltrans) specifications.

Oxnard Boulevard & Main Street (Spur Drive)

This intersection is the main entrance point for the Oxnard Village project. The addition of the project would cause this intersection to operate at an LOS D in the PM peak hour. Physical mitigation measures are required for this intersection.

The City's General Plan calls for three through lanes in each direction on Oxnard Boulevard. Therefore, the first mitigation measure is to add a third southbound through lane on Oxnard Boulevard. This lane will be added beginning at the free-flow right-turn movement from the Southbound 101 Off-Ramp. In addition, the southbound left-turn volume into the Esplanade Shopping Center is projected to be greater than 300 vehicles in the PM peak hour. Therefore, an additional southbound left-turn lane should be added to accommodate the left-turn volume without impacting the southbound through movement. The southbound right-turn volume into the project is projected to be high during the PM peak hour. Therefore, a southbound right-turn lane is recommended. The final mitigated southbound lane configuration will be two left-turn lanes, three through lanes, and a right-turn lane.

Preliminary analysis done by the City suggests that these southbound improvements can be accomplished with additional right-of-way from the project site. However, a full set of engineering drawings will be necessary to determine the right-of-way required.

In addition, the eastbound approach serves traffic exiting the project and it is recommended that the eastbound through lane be converted to a shared through/left lane. The intersection currently operates with a split phased signal which allows for a shared through/left lane configuration. The eastbound left-turn volume is also high in each peak hour, which indicates that two left-turn lanes would be beneficial.

The implementation of these mitigation measures would allow the intersection to operate at an LOS A in the AM peak hour and an LOS B in the PM peak hour.

EFFECTIVENESS OF MITIGATION MEASURES

As indicated in Table 6, the proposed mitigation measures would eliminate the significant project impacts at three of the intersections described above. The mitigation measures improve the operations of the intersections beyond the V/C levels anticipated in the 2014 existing plus pending projects scenario. An impact was identified at the Oxnard Boulevard & US 101 Southbound Off-Ramp intersection under the ICU analysis. This location was also analyzed using the HCM methodology. Based on the results of the HCM analysis, no mitigation measures are recommended as the recent improvements to the intersection and the proposed mitigation measures to the surrounding intersections mean that this intersection will operate at an acceptable LOS.

V. SITE CIRCULATION AND PARKING

This chapter presents analysis of site specific issues including site access/circulation and parking demand.

SITE ACCESS AND CIRCULATION

As shown in Figure 2, the proposed project would provide two main driveways, one on Ventura Road and another on Oxnard Boulevard. Both driveways will be on Main Street at opposite ends of the development. Each driveway will provide full access to the project site from the adjacent roadway. In addition, an overpass of Oxnard Boulevard will provide access to the southeast corner of the project site.

Three main roadway classifications are identified for the project: Main Street, Neighborhood Streets, and Alley Streets. Both Main Street and the Neighborhood Streets will accommodate on-street parking and will provide circulation throughout the site. The Alley Streets will not have on-street parking and primarily provide access from the Neighborhood Streets to household garages and off-street parking facilities.

Main Street will provide the main route of circulation through the project site. The roadway will have a landscaped median along much of its length. Main Street will include two one-lane roundabouts at intersections that provide access to destinations within the site. The roundabouts should have adequate capacity to accommodate the traffic expected to use these intersections. Main Street is likely to attract more cut-through traffic between Ventura Road and Oxnard Boulevard than the existing Wagon Wheel Road. The design of Main Street is expected to accommodate the additional trips.

Neighborhood streets will provide local access to the commercial and residential areas. Trips internal to the development site will be able to take advantage of the neighborhood streets to access neighboring parts of the development without using Main Street. The proposed roadway network should be able to provide the necessary on-site circulation needed for the proposed land uses.

PARKING ANALYSIS

The land uses specified in Table 5 were used to develop parking demand estimates for the Oxnard Village using three different approaches. First, the *Code of the City of Oxnard, California* (City Code) (City of Oxnard, January 2008) parking standards were applied to the Oxnard Village site to determine the number of parking spaces needed for the project. In addition, ITE and Urban Land Institute (ULI) parking demand rates were used to calculate the parking supply needed for the project. Once parking supply for each different approach was calculated, a comparison was made, the results of which are summarized in Tables 7-9. None of the parking demand estimates account for on-street parking.

According to the City Code, the development would require 3,767 parking spaces, as shown in Table 7. All of the residential use is multi-family housing, which requires one parking space per unit for one bedroom units and two parking spaces per unit for two or more bedroom units. In addition, multi-family residential requires visitor spaces at a rate of one space per unit for the first 30 units, and half a parking space per unit for subsequent units. There are two types of commercial uses proposed for the site: commercial office space and neighborhood retail. Both of these uses require one space per 250 square feet.

In addition, the City requires bicycle and motorcycle parking for some land uses. None of the proposed land uses require bicycle parking under the City Code. Motorcycle parking is required for all land uses except residential. The City Code requires one motorcycle space for uses with more than 25 automobile parking spaces and for motorcycle spaces to be provided at a rate of three spaces for every 100 automobile spaces for uses with more than 100 automobile spaces. Therefore, the proposed development would require three motorcycle spaces at the retail.

Compared to the nationally accepted ITE and ULI parking demand rates, the City Code requires more spaces for the proposed project. The ITE Parking Generation method (*Parking Generation, 3rd Edition*, ITE, 2004) indicates that the project will generate demand for approximately 2,350 parking spaces, as shown in Table 8. The ULI parking demand rates

TABLE 7
CITY OF OXNARD CITY CODE PARKING REQUIREMENTS

Proposed Project Land Uses	Size	Parking Ratio	Required Parking Spaces
Multi-Family Residential			
1 Bedroom Units	200 du	1 space per unit	200
2+ Bedroom Units	1,300 du	2 spaces per unit	2,600
Visitor		1 space per unit for the first 30 units; after the 31st unit, 0.5 spaces per unit	765
Residential Subtotal	1,500 du		*3,565*
Commercial			
Commercial Office	4 ksf	1 space per 250 sf	16
Neighborhood Retail	46.4 ksf	1 space per 250 sf	186
Commercial Subtotal	50 ksf		*202*
Total Spaces Required			**3,767**

Note:

Source: *The Code of the City of Oxnard, California* , City of Oxnard, January 2008.

TABLE 8
ITE PARKING GENERATION

LAND USE	Weekday					Weekend	
	ITE Code	Size	Units	Peak Period Parking Demand Rate	Peak Period Parking Demand	Peak Period Parking Demand Rate	Peak Period Parking Demand
Proposed Uses							
Residential Condominiums[1]	230	1,388	du	1.46	2,026	1.39	1,929
Residential Apartments	221	112	du	1.20	134	1.13	127
Office Space	701	4	ksf	2.40	10	n/a	0
Retail Space[2]	820	46.4	ksf				
Non-December				2.65	123	3.76	174
December				3.76	174	4.74	220
Total							
Non-December					2,293		2,230
December					**2,345**		**2,276**

Notes:
Source: *Parking Generation, 3rd Edition*, Institute of Transportation Engineers, 2004.
[1] Condo weekend rate based on 95% of weekday rate, consistent with Suburban ratio of weekday to weekend rate for apartments.
[2] Retail weekday rate based on Monday-Thursday.

TABLE 9
ULI SHARED PARKING MODEL RESULTS

LAND USE	Weekday				Weekend	
	Size	Units	Parking Rate	Estimated Parking Demand	Parking Rate	Estimated Parking Demand
Proposed Uses						
Community Shopping Center (less than 4,000 sf)	46.4	ksf	2.90	135	3.20	148
Shopping Center Employees			0.70	32	0.80	37
Residential, Owned, Shared Spaces	1,500	units	1.70	2,550	1.70	2,550
Guest Spaces			0.15	225	0.15	225
Office (less than 25,000 sf)	4.0	ksf	0.30	1	0.03	0
Employee Spaces			3.50	14	0.35	1
Total Parking Demand						
Total				**2,957**		**2,962**

Notes:
Source: *Shared Parking*, *2nd Edition*, Urban Land Institute, 2005
Results based on a Peak Month of December and a Peak Period of 7 P.M. on a weekend

suggest that the site will require a supply of approximately 2,960 parking spaces (as shown in Table 9). Therefore, there is evidence to suggest that the site could be served with fewer parking spaces than are required by the City Code. It is recommended that the parking supply for the proposed project be based on the ULI parking rates as these rates are based on the latest empirical data presented in the national study *Shared Parking, 2nd Edition* (ULI, 2005).

VI. REGIONAL FREEWAY ANALYSIS

Several sections of US-101 adjacent to the project were analyzed according to the CMP and comments by the Ventura County Transportation Commission. US 101 was analyzed between the City of Thousand Oaks and the City of Ventura. The segments in **bold type** are the sections of US-101 adjacent to the project site. The analysis locations include:

- US 101 between Borchard Road and Wendy Drive (City of Thousand Oaks)
- US 101 between Wendy Drive and Camarillo Springs Road (City of Thousand Oaks to City of Camarillo)
- US 101 between Camarillo Springs Road and Pleasant Valley Road (City of Camarillo)
- US 101 between Pleasant Valley Road and Dawson Drive (City of Camarillo)
- US 101 between Dawson Drive and Carmen Drive (City of Camarillo)
- US 101 between Carmen Drive and Las Posas Road (City of Camarillo)
- US 101 between Las Posas Road and Central Avenue (City of Camarillo)
- US 101 between Central Avenue and Almond Drive (City of Camarillo to City of Oxnard)
- US 101 between Almond Drive and Rice Avenue (City of Oxnard)
- US 101 between Rice Avenue and Rose Avenue (City of Oxnard)
- US 101 between Rose Avenue and Vineyard Avenue (City of Oxnard)
- **US 101 between Vineyard Avenue and Oxnard Boulevard (City of Oxnard)**
- **US 101 between Oxnard Boulevard and Johnson Drive (City of Oxnard to City of Ventura)**
- US 101 between Johnson Drive and Victoria Avenue (City of Ventura)
- US 101 between Victoria Avenue and Telephone Road (City of Ventura)
- US 101 between Telephone Road and Main Street (City of Ventura)

CMP SIGNIFICANT TRAFFIC IMPACT CRITERIA

For the purposes of a CMP traffic impact analysis, a project impact is considered to be significant if the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02), causing or worsening LOS F (V/C > 1.00). Under these criteria, a project would not be considered to have a regionally significant impact if the analyzed facility is operating at LOS E or better after the addition of project traffic, regardless of the increase in V/C ratio caused by the project. If the facility is operating at LOS F with project traffic and the incremental change in the V/C ratio caused by the project is 0.02 or greater, the project would be considered to have a significant impact.

FREEWAY ANALYSIS

A regional analysis was conducted to quantify potential impacts of the project traffic on the regional freeway system serving the project area, including segments of US-101. A total of 16 freeway mainline locations were analyzed.

Existing Freeway Traffic Volumes

Existing freeway mainline traffic volumes were obtained from *2006 Traffic Volumes on California State Highways* (Caltrans, 2006). Peak hour volumes by direction were derived by applying directional and peak hour factors derived from *2006 Traffic Volumes on California State Highways*, and freeway LOS was analyzed using the V/C methodology. A growth rate of 1.5% per year was applied to these traffic volumes to estimate 2008 existing base conditions for these freeway segments.

The V/C ratios were calculated for each freeway segment using a capacity value of 2,300 vph per freeway mainline lane and 2,300 vph per lane for auxiliary lanes. This is consistent with the freeway capacities presented in the *Caltrans Guide for the Preparation of Traffic Impact Studies* (Caltrans, December 2002). Freeway segment LOS was determined based on V/C ratios and the definitions shown in Table 10.

TABLE 10 FREEWAY SEGMENT LOS CRITERIA		
Freeway Mainline Segments		
LOS	**Maximum V/C Ratio**	**Maximum Service Flow Rate (pc/hr/ln)**
A	0.30	710
B	0.50	1170
C	0.71	1680
D	0.89	2090
E	1.00	2350
Source: *Guide for the Preparation of Traffic Impact Studies*, Caltrans, December 2002.		

Table 11 indicates the estimated existing V/C ratios during the morning and afternoon peak hours of the selected highway segments. The analysis indicates that the LOS of the freeway segments varies from LOS B to LOS E during the AM and PM peak hours. Only two of the study segments along US 101 currently operate below an LOS D in either of the peak hours. The southbound segment from Central Avenue to Almond Drive operates at an LOS D in the AM peak hour. The southbound segment from Telephone Road to Main Street in Ventura operates at an LOS E during the AM peak hour. This section of US 101 is only two lanes in the southbound direction while all other segments analyzed are three or more lanes in both directions. All other segments from Thousand Oaks to Ventura currently operate at LOS D or better.

Future Freeway Traffic Volumes

2014 freeway volumes with and without the proposed project were developed to determine if any of the freeway segments would be significantly impacted by the addition of the Oxnard Village project. The 2014 without project freeway traffic volumes were developed by applying a 1.5% growth rate per year to the 2006 Caltrans peak hour volumes. The V/C ratios for 2014 without the project were used to determine the cumulative background LOS for US 101. As indicated in Table 11, six segments operate at LOS E in the southbound direction during the AM peak hour and in the northbound direction during the PM peak hour. In addition, the two-lane southbound segment between Telephone Road and Main Street operates at an LOS F during both peak hours. All other segments operate at LOS D or better during both peak hours.

TABLE 11
REGIONAL FREEWAY IMPACT ANALYSIS

				Existing			2014 No Project			2014 With Project					
Freeway Segment	**Peak Hour**	**DIR.**	**Capacity**	**Volume**	**V/C**	**LOS**	**Volume**	**V/C**	**LOS**	**Added Trips**	**Volume**	**V/C**	**LOS**	**Increase in V/C**	**Significant Impact**
Borchard Rd to Wendy Drive (Thousand Oaks)	A.M.	NB	8,050	4,873	0.61	C	5,299	0.66	C	1	5,300	0.66	C	0.00	No
		SB	8,050	5,833	0.72	D	6,343	0.79	D	12	6,355	0.79	D	0.00	No
	P.M.	NB	8,050	5,861	0.73	D	6,373	0.79	D	8	6,381	0.79	D	0.00	No
		SB	8,050	5,036	0.63	C	5,476	0.68	C	4	5,480	0.68	C	0.00	No
Wendy Drive to Camarillo Springs Rd (Thousand Oaks to Camarillo)	A.M.	NB	6,900	4,393	0.64	C	4,777	0.69	C	1	4,778	0.69	C	0.00	No
		SB	9,200	5,258	0.57	C	5,718	0.62	C	16	5,734	0.62	C	0.00	No
	P.M.	NB	6,900	5,283	0.77	D	5,744	0.83	D	8	5,752	0.83	D	0.00	No
		SB	9,200	4,539	0.49	B	4,936	0.54	C	6	4,942	0.54	C	0.00	No
Camarillo Springs Rd to Pleasant Valley Rd (Camarillo)	A.M.	NB	6,900	4,427	0.64	C	5,299	0.77	D	1	5,300	0.77	D	0.00	No
		SB	6,900	5,299	0.77	D	6,343	0.92	**E**	16	6,359	0.92	**E**	0.00	No
	P.M.	NB	6,900	5,325	0.77	D	6,373	0.92	**E**	8	6,381	0.92	**E**	0.00	No
		SB	6,900	4,574	0.66	C	5,476	0.79	D	6	5,482	0.79	D	0.00	No
Pleasant Valley Rd to Dawson Dr (Camarillo)	A.M.	NB	6,900	4,530	0.66	C	4,777	0.69	C	1	4,778	0.69	C	0.00	No
		SB	6,900	5,422	0.79	D	5,718	0.83	D	24	5,742	0.83	D	0.00	No
	P.M.	NB	6,900	5,449	0.79	D	5,744	0.83	D	14	5,758	0.83	D	0.00	No
		SB	6,900	4,680	0.68	C	4,936	0.72	D	9	4,945	0.72	D	0.00	No
Dawson Dr to Carmen Dr (Camarillo)	A.M.	NB	6,900	4,722	0.68	C	5,299	0.77	D	1	5,300	0.77	D	0.00	No
		SB	6,900	5,721	0.83	D	6,343	0.92	**E**	24	6,367	0.92	**E**	0.00	No
	P.M.	NB	6,900	5,303	0.77	D	6,373	0.92	**E**	14	6,387	0.93	**E**	0.00	No
		SB	6,900	4,018	0.58	C	5,476	0.79	D	9	5,485	0.79	D	0.00	No
Carmen Dr to Las Posas Rd (Camarillo)	A.M.	NB	6,900	4,980	0.72	D	4,777	0.69	C	2	4,779	0.69	C	0.00	No
		SB	6,900	6,033	0.87	D	5,718	0.83	D	32	5,750	0.83	D	0.00	No
	P.M.	NB	6,900	5,594	0.81	D	5,744	0.83	D	20	5,764	0.84	D	0.00	No
		SB	6,900	4,237	0.61	C	4,936	0.72	D	12	4,948	0.72	D	0.00	No
Las Posas Rd to Central Ave (Camarillo)	A.M.	NB	6,900	5,312	0.77	D	5,299	0.77	D	4	5,303	0.77	D	0.00	No
		SB	6,900	6,435	0.93	E	6,343	0.92	**E**	49	6,392	0.93	**E**	0.01	No
	P.M.	NB	6,900	5,967	0.86	D	6,373	0.92	**E**	34	6,407	0.93	**E**	0.00	No
		SB	6,900	4,520	0.66	C	5,476	0.79	D	17	5,493	0.80	D	0.00	No
Central Ave to Almond Dr (Camarillo to Oxnard)	A.M.	NB	6,900	5,127	0.74	D	4,777	0.69	C	4	4,781	0.69	C	0.00	No
		SB	6,900	6,212	0.90	**E**	5,718	0.83	D	61	5,779	0.84	D	0.01	No
	P.M.	NB	6,900	5,760	0.83	D	5,744	0.83	D	34	5,778	0.84	D	0.00	No
		SB	6,900	4,362	0.63	C	4,936	0.72	D	22	4,958	0.72	D	0.00	No
Almond Dr to Rice Ave (Oxnard)	A.M.	NB	6,900	4,943	0.72	D	5,299	0.77	D	4	5,303	0.77	D	0.00	No
		SB	6,900	5,988	0.87	D	6,343	0.92	**E**	61	6,404	0.93	**E**	0.01	No
	P.M.	NB	6,900	5,553	0.80	D	6,373	0.92	**E**	34	6,407	0.93	**E**	0.00	No
		SB	6,900	4,205	0.61	C	5,476	0.79	D	22	5,498	0.80	D	0.00	No
Rice Ave to Rose Ave (Oxnard)	A.M.	NB	6,900	4,796	0.70	C	4,777	0.69	C	4	4,781	0.69	C	0.00	No
		SB	6,900	5,809	0.84	D	5,718	0.83	D	69	5,787	0.84	D	0.01	No
	P.M.	NB	6,900	5,387	0.78	D	5,744	0.83	D	41	5,785	0.84	D	0.01	No
		SB	6,900	4,080	0.59	C	4,936	0.72	D	25	4,961	0.72	D	0.00	No
Rose Ave to Vineyard Ave (Oxnard)	A.M.	NB	6,900	5,053	0.73	D	5,299	0.77	D	5	5,304	0.77	D	0.00	No
		SB	6,900	6,122	0.89	D	6,343	0.92	**E**	81	6,424	0.93	**E**	0.01	No
	P.M.	NB	6,900	5,676	0.82	D	6,373	0.92	**E**	44	6,417	0.93	**E**	0.01	No
		SB	6,900	4,300	0.62	C	5,476	0.79	D	29	5,505	0.80	D	0.00	No
Vineyard Ave to Oxnard Blvd (Oxnard)	A.M.	NB	8,050	4,537	0.56	C	4,777	0.59	C	7	4,784	0.59	C	0.00	No
		SB	8,050	5,497	0.68	C	5,718	0.71	D	81	5,799	0.72	D	0.01	No
	P.M.	NB	8,050	5,096	0.63	C	5,744	0.71	D	68	5,812	0.72	D	0.01	No
		SB	8,050	3,860	0.48	B	4,936	0.61	C	29	4,965	0.62	C	0.00	No
Oxnard Blvd to Johnson Dr (Oxnard to Ventura)	A.M.	NB	11,500	5,829	0.51	C	5,299	0.46	B	142	5,441	0.47	B	0.01	No
		SB	11,500	7,061	0.61	C	6,343	0.55	C	12	6,355	0.55	C	0.00	No
	P.M.	NB	11,500	6,547	0.57	C	6,373	0.55	C	51	6,424	0.56	C	0.00	No
		SB	11,500	4,959	0.43	B	5,476	0.48	B	119	5,595	0.49	B	0.01	No
Johnson Drive to Victoria Ave (Ventura)	A.M.	NB	6,900	5,053	0.73	D	4,777	0.69	C	99	4,876	0.71	C	0.01	No
		SB	6,900	6,122	0.89	D	5,718	0.83	D	6	5,724	0.83	D	0.00	No
	P.M.	NB	6,900	5,676	0.82	D	5,744	0.83	D	36	5,780	0.84	D	0.01	No
		SB	6,900	4,300	0.62	C	4,936	0.72	D	60	4,996	0.72	D	0.01	No
Victoria Ave to Telephone Rd (Ventura)	AM	NB	6,900	4,353	0.63	C	5,299	0.77	D	57	5,356	0.78	D	0.01	No
		SB	6,900	5,274	0.76	D	6,343	0.92	**E**	2	6,345	0.92	**E**	0.00	No
	P.M.	NB	6,900	4,889	0.71	C	6,373	0.92	**E**	20	6,393	0.93	**E**	0.00	No
		SB	6,900	3,704	0.54	C	5,476	0.79	D	24	5,500	0.80	D	0.00	No
Telephone Rd to Main Street (Ventura)	A.M.	NB	6,900	3,847	0.56	C	4,777	0.69	C	28	4,805	0.70	C	0.00	No
		SB	4,400	4,158	0.95	**E**	5,718	1.30	**F**	2	5,720	1.30	**F**	0.00	No
	P.M.	NB	6,900	3,887	0.56	C	5,744	0.83	D	10	5,754	0.83	D	0.00	No
		SB	4,400	3,424	0.78	D	4,936	1.12	**F**	18	4,954	1.13	**F**	0.01	No

Source: *2006 Traffic Volumes on California State Highways* , Caltrans, 2006.
Reported 2006 Volumes were increased by 1.5% per year to estimate 2008 conditions and 2014 background conditions.

The Oxnard Village project trips were added to the 2014 without project freeway volumes. The regional model and trip distribution shown in Figure 7 were used to determine how many trips should be added to each freeway segment. In general, 35% of the project trips were assigned to/from the north on US 101 and 20% to/from the south on US 101. The V/C ratios were determined for the 2014 with project conditions for comparison to the without project results and are shown in Table 11.

Regional Freeway Impact Analysis

As indicated in Table 11, the project trips did not increase the V/C ratio by more than 0.01 on any of the freeway segments. Therefore, based on the Ventura County CMP criteria the project does not have a significant impact on any US 101 mainline section from Thousand Oaks to Ventura.

VII. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed Oxnard Village development in the City of Oxnard. The following summarizes the results of this analysis:

- The proposed project includes: 1,500 residential units, 50,400 square feet of commercial space, and three acres of park space. The residential units are a combination of townhomes, condominiums, and apartments. The commercial space is designated as 46,400 sf of retail and 4,000 sf of office for the traffic analysis. The site is currently occupied by a mobile home park, aging industrial and commercial facilities, and a sparsely occupied neighborhood shopping center. As part of the project, these existing land uses will be removed.

- The proposed project would provide two main access points from the surrounding street network with the construction of a Main Street that will provide the primary east-west access through the project. Main Street will tie into Oxnard Boulevard at the current Spur Drive & Oxnard Boulevard intersection. The secondary access point would be via Ventura Road on the west side of the project near the existing shopping center driveway. This intersection will continue to be a full-access driveway. Within the project site, neighborhood streets will be constructed that provide access from the destinations within the site to Main Street. Both Main Street and the neighborhood streets will provide on-street parking.

- The existing operations of 18 signalized intersections were analyzed for this project. One of the study intersections, Oxnard Boulevard & Wooley Road & Saviers Road, currently operates below the City's LOS C threshold. The remaining 17 study intersections operate at LOS C or better under existing peak hour traffic conditions.

- The proposed project is expected to generate approximately 439 net new trips during the morning peak hour, 462 net new trips during the afternoon peak hour, and approximately 6,816 net new daily trips. If the proposed project were planned as a new development instead of a redevelopment, the number of new trips would be greater. The trips generated by the existing land uses were removed from the trip generation estimates for the project. This provided the total number of net new trips that would be generated by the project. The net new trips were used for all analyses.

- A comparison of the forecasted 2014 existing plus pending projects conditions and the 2014 existing plus pending plus project conditions indicates that the project would have significant impacts at the following four intersections: Oxnard Boulevard & Vineyard Avenue, Oxnard Boulevard & US 101 Southbound Off-Ramp, Oxnard Boulevard & US 101 Northbound Off-Ramp, and Oxnard Boulevard & Main Street (Spur Drive). The City of Oxnard significant impact criteria were used to determine that these intersections would be significantly impacted by the Oxnard Village development. These intersections experienced a V/C increase of 0.02 or more and were operating at an LOS C or worse.

- Analysis determined the following mitigation measures would reduce the project impacts at the four intersections to a less than significant level:

  <u>Oxnard Boulevard & Vineyard Avenue</u>. Based on discussions with the City, the recommended mitigation for this intersection from a conceptual plan is to modify the median on Oxnard Boulevard and reconfigure the northbound and southbound movements. The mitigation essentially consists of adding one northbound and one southbound through lane. City analysis indicates that these mitigation measures can be implemented without additional right-of-way.

  <u>Oxnard Boulevard & US 101 Southbound Off-Ramp</u>. An impact was identified at the Oxnard Boulevard & US 101 Southbound Off-Ramp intersection under the ICU analysis. This location was also analyzed using the HCM methodology. Based on the results of the HCM analysis, no mitigation measures are recommended as the recent improvements to the intersection and the proposed mitigation measures to the surrounding intersections mean that this intersection will operate at an acceptable LOS.

  <u>Oxnard Boulevard & US 101 Northbound Off-Ramp</u>. The addition of a second left-turn lane from the US 101 Northbound Ramp onto Oxnard Boulevard would mitigate the project impact at this intersection. This left-turn volume with the project is expected to be over 300 vehicles in the PM peak hour, which meets the State Traffic Manual guidelines for use of a double left. With the addition of a second left-turn lane, the intersection would operate at an LOS B in the PM peak hour. As described in Section III, this intersection will be upgraded to include a free right movement from the US 101 Northbound Off-Ramp. Ramp modification and redesign is necessary with the second left turn lane but it is unlikely that additional right-of-way for would be required. The ramp should be redesigned to California Department of Transportation (Caltrans) specifications.

  <u>Oxnard Boulevard & Main Street (Spur Drive)</u>. Physical mitigation measures are required for this intersection and have been discussed with City staff. The City's General Plan calls for three through lanes in each direction on Oxnard Boulevard. Therefore, the first mitigation measure is to add a third southbound through lane on Oxnard Boulevard. In addition, the southbound left-turn volume into the Esplanade Shopping Center is projected to be greater than 300 vehicles in the PM peak hour. Therefore, an additional southbound left-turn lane should be added to accommodate the left-turn volume without impacting the southbound through movement. In addition, a southbound right-turn lane is recommended to handle traffic traveling to the project. The final mitigated southbound lane configuration will be two left-turn lanes, three through lanes, and a right-turn lane.

  Preliminary analysis suggests that the right-of-way required for the mitigation measures would be available from the project site. However, a full set of engineering drawings will be necessary to determine the right-of-way required.

The eastbound approach serves traffic exiting the project and it is recommended that the eastbound through lane be converted to a shared through/left lane. The implementation of these mitigation measures would allow the intersection to operate at an LOS A in the AM peak hour and an LOS B in the PM peak hour.

- The parking demand for the project was determined using three different methodologies: the City Code, *Parking Generation, 3rd Edition*, and *Shared Parking*, *2nd Edition*. Based on the City Code, the site would require approximately 3,770 parking spaces. The ITE and ULI methodologies suggest that the parking demand for the site will be between 800 and 1,600 parking spaces fewer than the City Code. It is recommended that the ULI methodology, which suggests that the project would require approximately 2,960 parking spaces, be used to determine the parking supply for the project site.

- Additional analysis of potential impacts on the regional freeway system determined that the project would not have a significant impact on the US 101 mainline.

REFERENCES

2004/2005 Ventura County Congestion Management Program, Ventura County Transportation Commission, March 2005.

2006 Traffic Volumes on California State Highways, California Department of Transportation, 2006.

Caltrans Guide for the Preparation of Traffic Impact Studies, California Department of Transportation, 2002.

The Code of the City of Oxnard, *California,* City of Oxnard, January 2008.

Highway Capacity Manual, Transportation Research Board, 2000.

Parking Generation, 3rd Edition, Institute of Transportation Engineers, 2004.

Shared Parking, *2nd Edition,* Urban Land Institute, 2005.

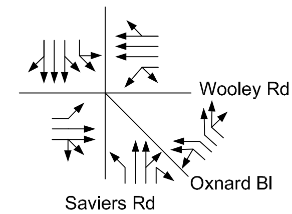
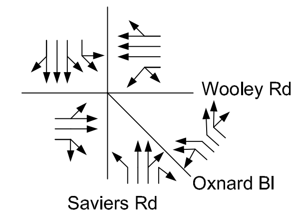
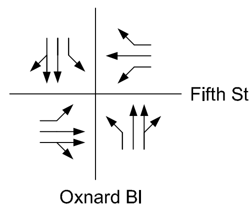
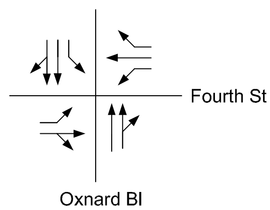
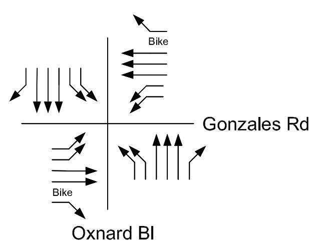
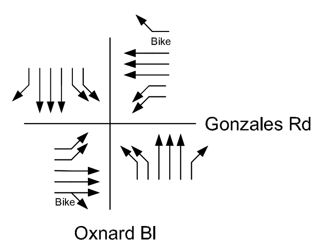
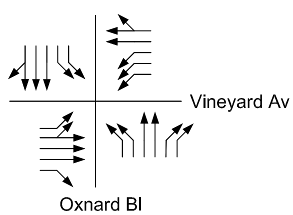
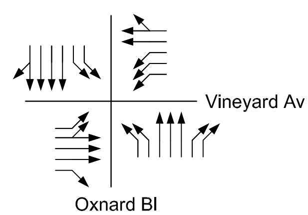
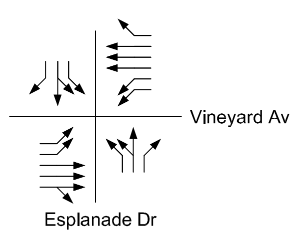
Traffic Analysis for the RiverPark Specific Plan Development, Crain & Associates, 2001.

Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003.

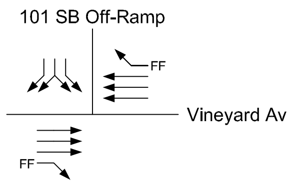
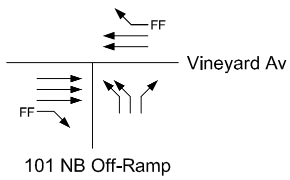
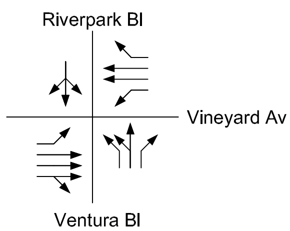
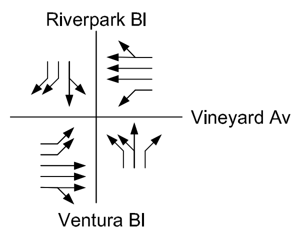
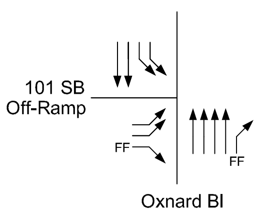
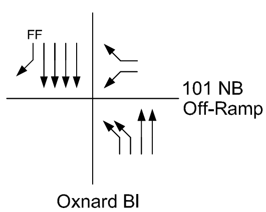
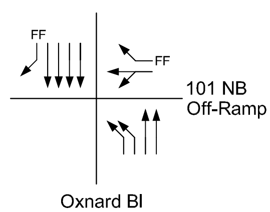
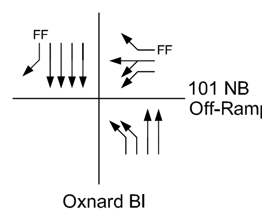
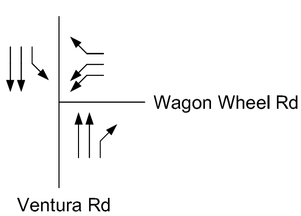
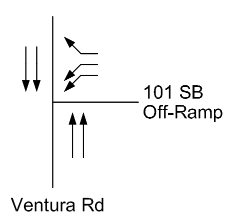
APPENDIX A

INTERSECTION LANE CONFIGURATIONS

INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	FUTURE MITIGATED CONDITIONS
1. Oxnard Bl/Saviers Rd & Wooley Rd			Same As Future Conditions
2. Oxnard Bl & Fifth St		Same As Existing Conditions	Same As Existing Conditions
3. Oxnard Bl & Fourth St		Same As Existing Conditions	Same As Existing Conditions
4. Oxnard Bl & Gonzales Rd			Same As Future Conditions
5. Oxnard Bl & Vineyard Av		Same As Existing Conditions	
6. Esplanade Dr & Vineyard Av		Same As Existing Conditions	Same As Existing Conditions

INTERSECTION LANE CONFIGURATIONS

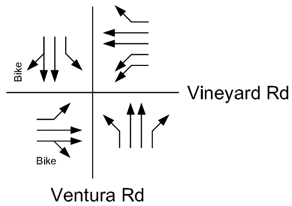
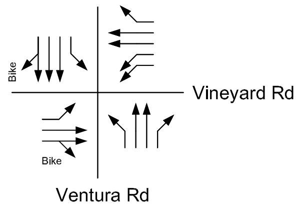
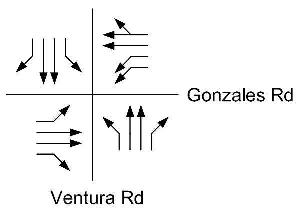
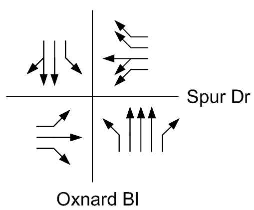
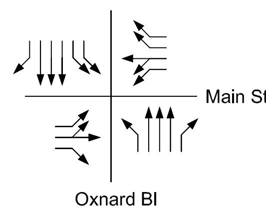
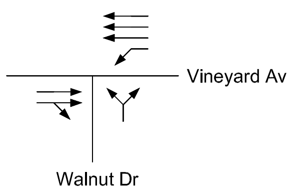
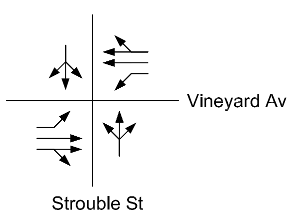
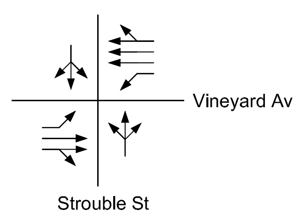
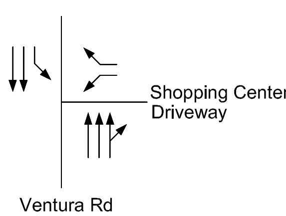
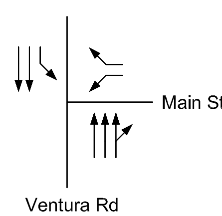
	EXISTING CONDITIONS	FUTURE CONDITIONS	FUTURE MITIGATED CONDITIONS
7. 101 SB Off-Ramp & Vineyard Av		Same As Existing Conditions	Same As Existing Conditions
8. 101 NB Off-Ramp & Vineyard Av		Same As Existing Conditions	Same As Existing Conditions
9. Riverpark Bl/Ventura Bl & Vineyard Av			Same As Future Conditions
10. Oxnard Bl & 101 SB Off-Ramp		Same As Existing Conditions	Same As Existing Conditions
11. Oxnard Bl & 101 NB Off-Ramp			
12. Ventura Rd & 101 SB Off-Ramp (Currently Ventura Rd & Wagon Wheel Rd)			Same As Future Conditions

LEGEND

FF Free-flow

FEHR & PEERS
KAKU ASSOCIATES

INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS	FUTURE MITIGATED CONDITIONS
13. Ventura Rd & Vineyard Rd			Same As Future Conditions
14. Ventura Rd & Gonzales Rd		Same As Existing Conditions	Same As Existing Conditions
15. Oxnard Bl & Main St (Currently Oxnard Bl & Spur Dr)		Same As Existing Conditions	
16. Walnut Dr & Vineyard Av		Same As Existing Conditions	Same As Future Conditions
17. Strouble St & Vineyard Av			Same As Future Conditions
18. Ventura Rd & Main St (Currently Ventura Rd & Shopping Center Driveway)			Same As Future Conditions

APPENDIX B

TRAFFIC COUNTS

WILTEC

Phone: (626) 564-1944   Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

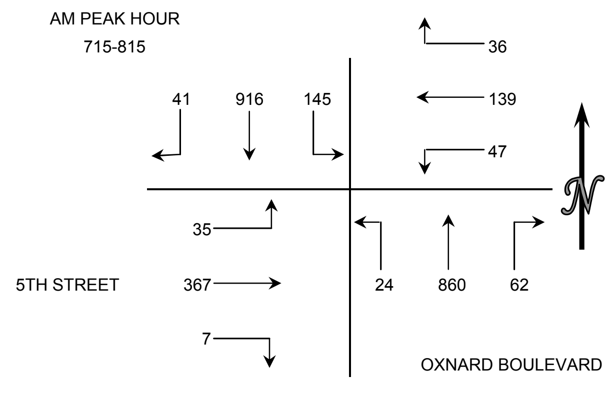
CLIENT:		FEHR AND PEERS
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		TUESDAY JANUARY 15TH, 2008
PERIODS:		7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEVARD
	E/W	5TH STREET
CITY:		OXNARD

15 MIN COUNTS — 7:00 AM TO 9:00 AM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	4	165	24	5	21	3	18	190	4	0	68	9	511
715-730	6	195	31	7	37	7	17	202	5	0	87	8	602
730-745	10	245	41	10	30	15	15	208	6	2	94	4	680
745-800	14	268	42	10	40	13	14	234	4	1	104	13	757
800-815	11	208	31	9	32	12	16	216	9	4	82	10	640
815-830	10	193	29	12	39	18	11	173	11	1	61	9	567
830-845	10	188	29	15	30	17	13	153	6	5	61	7	534
845-900	15	183	20	19	41	8	14	160	15	7	42	4	528

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	34	873	138	32	128	38	64	834	19	3	353	34	2550
715-815	41	916	145	36	139	47	62	860	24	7	367	35	2679
730-830	45	914	143	41	141	58	56	831	30	8	341	36	2644
745-845	45	857	131	46	141	60	54	776	30	11	308	39	2498
800-900	46	772	109	55	142	55	54	702	41	17	246	30	2269

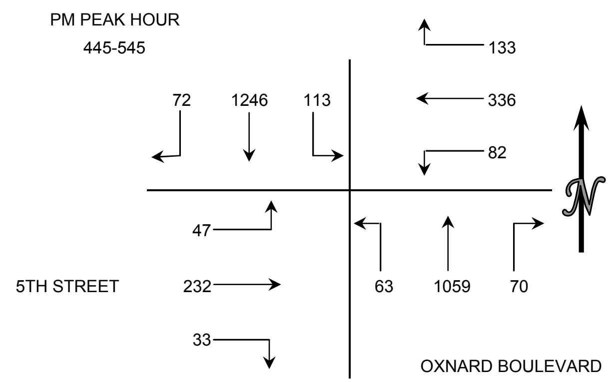


15 MIN COUNTS — 4:00 PM TO 6:00 PM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	12	228	37	29	79	25	16	239	15	10	88	12	790
415-430	9	240	29	28	79	24	22	251	23	13	68	13	799
430-445	5	268	20	33	78	29	23	241	18	10	57	13	795
445-500	20	321	28	30	92	21	13	250	18	13	55	14	875
500-515	17	304	29	44	71	22	17	269	22	7	74	15	891
515-530	19	294	31	34	90	18	19	292	11	11	51	8	878
530-545	16	327	25	25	83	21	21	248	12	2	52	10	842
545-600	17	312	36	25	83	21	16	235	16	6	71	9	847

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	46	1057	114	120	328	99	74	981	74	46	268	52	3259
415-515	51	1133	106	135	320	96	75	1011	81	43	254	55	3360
430-530	61	1187	108	141	331	90	72	1052	69	41	237	50	3439
445-545	72	1246	113	133	336	82	70	1059	63	33	232	47	3486
500-600	69	1237	121	128	327	82	73	1044	61	26	248	42	3458



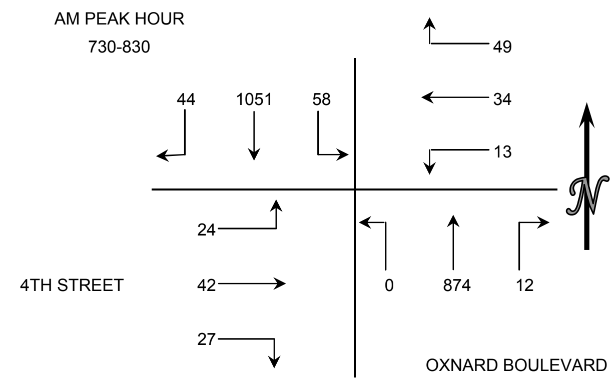
WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

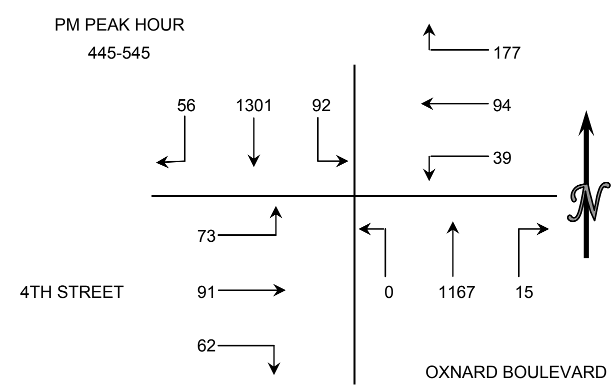
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		FEHR AND PEERS
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		TUESDAY JANUARY 15TH, 2008
PERIODS:		7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEVARD
	E/W	4TH STREET
CITY:		OXNARD

15 MIN COUNTS						7:00 AM TO 9:00 AM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	2	183	13	8	4	0	12	160	0	4	2	0	388
715-730	4	231	19	11	8	0	1	198	0	0	8	1	481
730-745	9	299	17	8	12	2	0	233	0	5	13	2	600
745-800	10	297	11	13	5	2	5	220	0	2	9	3	577
800-815	11	228	16	14	8	4	3	213	0	12	16	13	538
815-830	14	227	14	14	9	5	4	208	0	8	4	6	513
830-845	10	205	11	21	9	4	3	193	0	10	14	3	483
845-900	21	198	11	11	12	3	3	167	0	15	8	8	457
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	25	1010	60	40	29	4	18	811	0	11	32	6	2046
715-815	34	1055	63	46	33	8	9	864	0	19	46	19	2196
730-830	44	1051	58	49	34	13	12	874	0	27	42	24	2228
745-845	45	957	52	62	31	15	15	834	0	32	43	25	2111
800-900	56	858	52	60	38	16	13	781	0	45	42	30	1991



15 MIN COUNTS						4:00 PM TO 6:00 PM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	43	294	29	51	24	8	5	296	0	24	12	22	808
415-430	14	309	20	43	25	6	4	278	0	11	22	19	751
430-445	13	279	19	54	28	5	6	253	0	12	21	19	709
445-500	18	304	24	41	20	10	5	317	0	26	29	23	817
500-515	13	338	25	46	28	9	3	299	0	13	21	14	809
515-530	15	313	26	46	20	17	3	296	0	12	29	19	796
530-545	10	346	17	44	26	3	4	255	0	11	12	17	745
545-600	16	340	12	41	33	17	9	280	0	15	19	11	793
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	88	1186	92	189	97	29	20	1144	0	73	84	83	3085
415-515	58	1230	88	184	101	30	18	1147	0	62	93	75	3086
430-530	59	1234	94	187	96	41	17	1165	0	63	100	75	3131
445-545	56	1301	92	177	94	39	15	1167	0	62	91	73	3167
500-600	54	1337	80	177	107	46	19	1130	0	51	81	61	3143



WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

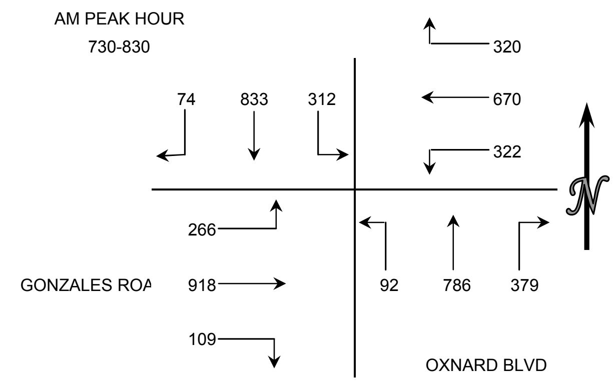
CLIENT:		FEHR AND PEERS		
PROJECT:		OXNARD TRAFFIC COUNTS		
DATE:		THURSDAY JANUARY 10, 2008		
PERIODS:		7:00 AM TO 9:00 AM	AND	4:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BLVD		
	E/W	GONZALES ROAD		
CITY:		OXNARD		

15 MIN COUNTS — 7:00 AM TO 9:00 AM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	14	158	32	40	87	41	68	135	16	23	186	49	849
715-730	11	187	20	80	145	50	66	167	14	22	215	52	1029
730-745	21	204	76	90	127	50	79	180	27	39	254	81	1228
745-800	17	229	98	89	162	85	125	246	16	24	223	82	1396
800-815	15	195	98	67	195	97	121	175	28	19	251	52	1313
815-830	21	205	40	74	186	90	54	185	21	27	190	51	1144
830-845	23	230	57	52	125	48	52	126	21	26	165	42	967
845-900	30	207	38	48	128	44	43	158	31	31	184	31	973

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	63	778	226	299	521	226	338	728	73	108	878	264	4502
715-815	64	815	292	326	629	282	391	768	85	104	943	267	4966
730-830	74	833	312	320	670	322	379	786	92	109	918	266	5081
745-845	76	859	293	282	668	320	352	732	86	96	829	227	4820
800-900	89	837	233	241	634	279	270	644	101	103	790	176	4397

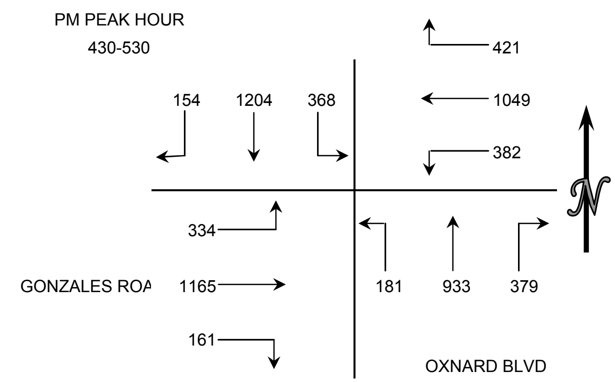


15 MIN COUNTS — 4:00 PM TO 6:00 PM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	28	295	84	79	248	81	95	219	37	30	237	43	1476
415-430	32	251	66	100	235	80	69	226	30	25	208	71	1393
430-445	31	344	107	98	288	102	76	192	47	28	266	73	1652
445-500	48	328	62	128	251	100	78	232	52	28	282	76	1665
500-515	30	245	101	106	241	84	118	242	45	83	330	128	1753
515-530	45	287	98	89	269	96	107	267	37	22	287	57	1661
530-545	35	273	97	115	293	89	93	213	48	21	222	56	1555
545-600	46	341	65	122	302	94	107	236	28	24	223	62	1650

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	139	1218	319	405	1022	363	318	869	166	111	993	263	6186
415-515	141	1168	336	432	1015	366	341	892	174	164	1086	348	6463
430-530	154	1204	368	421	1049	382	379	933	181	161	1165	334	6731
445-545	158	1133	358	438	1054	369	396	954	182	154	1121	317	6634
500-600	156	1146	361	432	1105	363	425	958	158	150	1062	303	6619



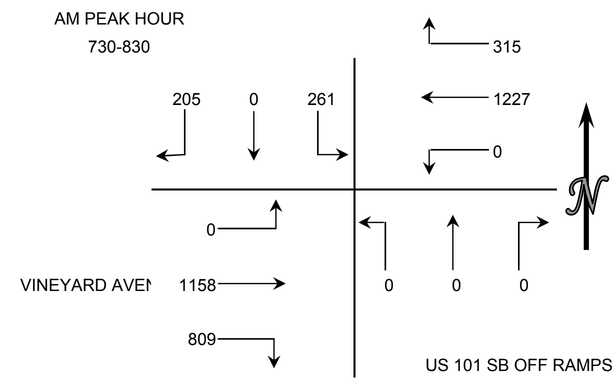
WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

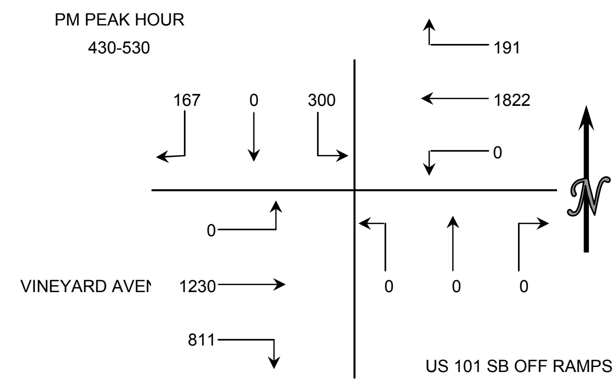
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY JANUARY 17TH, 2008
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S US 101 SB OFF RAMPS
E/W VINEYARD AVENUE
CITY: OXNARD

15 MIN COUNTS					7:00 AM TO 9:00 AM								
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	13	0	32	82	216	0	0	0	0	170	195	0	708
715-730	31	0	52	83	248	0	0	0	0	208	242	0	864
730-745	43	0	60	91	299	0	0	0	0	206	268	0	967
745-800	58	0	79	91	312	0	0	0	0	233	328	0	1101
800-815	55	0	74	62	291	0	0	0	0	174	287	0	943
815-830	49	0	48	71	325	0	0	0	0	196	275	0	964
830-845	36	0	43	59	308	0	0	0	0	167	225	0	838
845-900	43	0	57	54	320	0	0	0	0	143	219	0	836
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	145	0	223	347	1075	0	0	0	0	817	1033	0	3640
715-815	187	0	265	327	1150	0	0	0	0	821	1125	0	3875
730-830	205	0	261	315	1227	0	0	0	0	809	1158	0	3975
745-845	198	0	244	283	1236	0	0	0	0	770	1115	0	3846
800-900	183	0	222	246	1244	0	0	0	0	680	1006	0	3581



15 MIN COUNTS					4:00 PM TO 6:00 PM								
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	41	0	86	41	472	0	0	0	0	176	297	0	1113
415-430	47	0	83	58	447	0	0	0	0	164	272	0	1071
430-445	45	0	69	41	457	0	0	0	0	204	278	0	1094
445-500	40	0	73	41	443	0	0	0	0	193	278	0	1068
500-515	45	0	69	55	465	0	0	0	0	218	350	0	1202
515-530	37	0	89	54	457	0	0	0	0	196	324	0	1157
530-545	44	0	56	53	411	0	0	0	0	191	297	0	1052
545-600	34	0	67	28	411	0	0	0	0	185	286	0	1011
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	173	0	311	181	1819	0	0	0	0	737	1125	0	4346
415-515	177	0	294	195	1812	0	0	0	0	779	1178	0	4435
430-530	167	0	300	191	1822	0	0	0	0	811	1230	0	4521
445-545	166	0	287	203	1776	0	0	0	0	798	1249	0	4479
500-600	160	0	281	190	1744	0	0	0	0	790	1257	0	4422



WILTEC

Phone: (626) 564-1944   Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

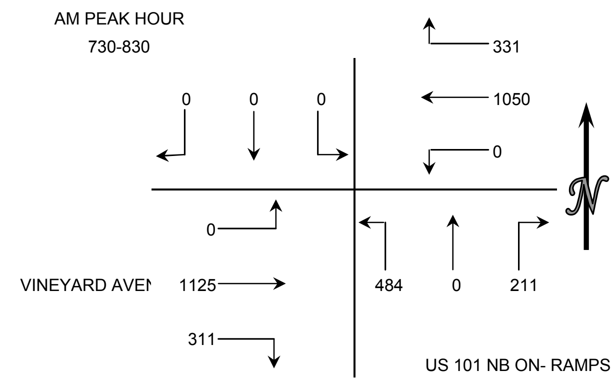
CLIENT:		FEHR AND PEERS
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY JANUARY 17TH, 2008
PERIODS:		7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	N/S	US 101 NB ON- RAMPS
	E/W	VINEYARD AVENUE
CITY:		OXNARD

15 MIN COUNTS — 7:00 AM TO 9:00 AM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	62	216	0	40	0	81	39	200	0	638
715-730	0	0	0	79	244	0	34	0	106	59	208	0	730
730-745	0	0	0	72	261	0	44	0	108	83	277	0	845
745-800	0	0	0	104	275	0	57	0	136	98	298	0	968
800-815	0	0	0	84	255	0	54	0	106	54	310	0	863
815-830	0	0	0	71	259	0	56	0	134	76	240	0	836
830-845	0	0	0	76	246	0	36	0	123	55	239	0	775
845-900	0	0	0	81	265	0	47	0	126	52	219	0	790

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	0	0	317	996	0	175	0	431	279	983	0	3181
715-815	0	0	0	339	1035	0	189	0	456	294	1093	0	3406
730-830	0	0	0	331	1050	0	211	0	484	311	1125	0	3512
745-845	0	0	0	335	1035	0	203	0	499	283	1087	0	3442
800-900	0	0	0	312	1025	0	193	0	489	237	1008	0	3264

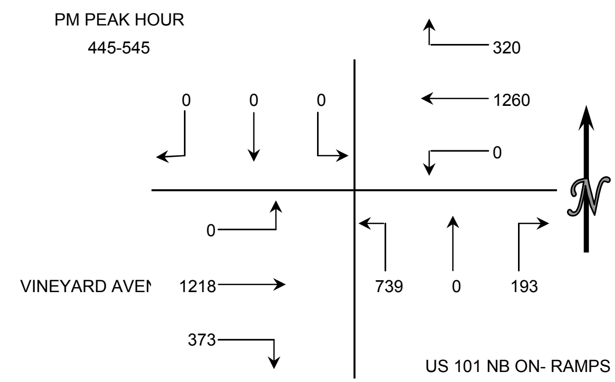


15 MIN COUNTS — 4:00 PM TO 6:00 PM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	0	0	0	81	313	0	55	0	202	81	297	0	1029
415-430	0	0	0	85	319	0	53	0	187	82	294	0	1020
430-445	0	0	0	83	313	0	34	0	184	89	251	0	954
445-500	0	0	0	88	320	0	44	0	181	79	283	0	995
500-515	0	0	0	88	328	0	57	0	181	108	301	0	1063
515-530	0	0	0	91	331	0	42	0	192	90	324	0	1070
530-545	0	0	0	53	281	0	50	0	185	96	310	0	975
545-600	0	0	0	58	275	0	42	0	192	70	283	0	920

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	0	0	0	337	1265	0	186	0	754	331	1125	0	3998
415-515	0	0	0	344	1280	0	188	0	733	358	1129	0	4032
430-530	0	0	0	350	1292	0	177	0	738	366	1159	0	4082
445-545	0	0	0	320	1260	0	193	0	739	373	1218	0	4103
500-600	0	0	0	290	1215	0	191	0	750	364	1218	0	4028



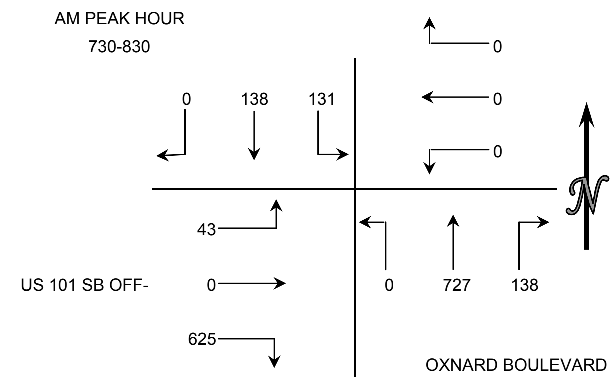
WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

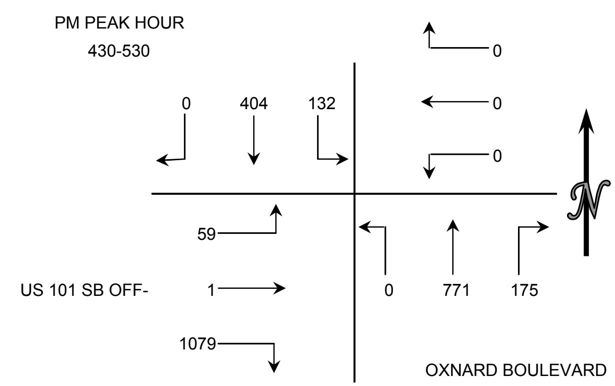
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY JANUARY 17TH, 2008
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEVARD
E/W US 101 SB OFF- RAMPS
CITY: OXNARD

15 MIN COUNTS						7:00 AM TO 9:00 AM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	0	25	25	0	0	0	27	140	0	83	0	14	314
715-730	0	23	32	0	0	0	32	161	0	130	0	17	395
730-745	0	27	56	0	0	0	42	184	0	140	0	8	457
745-800	0	20	30	0	0	0	41	235	0	178	0	11	515
800-815	0	42	26	0	0	0	24	151	0	161	0	6	410
815-830	0	49	19	0	0	0	31	157	0	146	0	18	420
830-845	0	45	21	0	0	0	37	152	0	132	0	15	402
845-900	0	42	15	0	0	0	27	146	0	125	0	12	367
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	0	95	143	0	0	0	142	720	0	531	0	50	1681
715-815	0	112	144	0	0	0	139	731	0	609	0	42	1777
730-830	0	138	131	0	0	0	138	727	0	625	0	43	1802
745-845	0	156	96	0	0	0	133	695	0	617	0	50	1747
800-900	0	178	81	0	0	0	119	606	0	564	0	51	1599



15 MIN COUNTS						4:00 PM TO 6:00 PM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	0	67	16	0	0	0	40	157	0	242	0	14	536
415-430	0	68	15	0	0	0	43	168	0	223	1	11	529
430-445	0	96	37	0	0	0	45	184	0	243	1	17	623
445-500	0	99	24	0	0	0	40	175	0	274	0	16	628
500-515	0	105	42	0	0	0	37	205	0	272	0	15	676
515-530	0	104	29	0	0	0	53	207	0	290	0	11	694
530-545	0	90	43	0	0	0	43	166	0	239	0	17	598
545-600	0	98	28	0	0	0	41	168	0	212	0	16	563
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	0	330	92	0	0	0	168	684	0	982	2	58	2316
415-515	0	368	118	0	0	0	165	732	0	1012	2	59	2456
430-530	0	404	132	0	0	0	175	771	0	1079	1	59	2621
445-545	0	398	138	0	0	0	173	753	0	1075	0	59	2596
500-600	0	397	142	0	0	0	174	746	0	1013	0	59	2531



WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

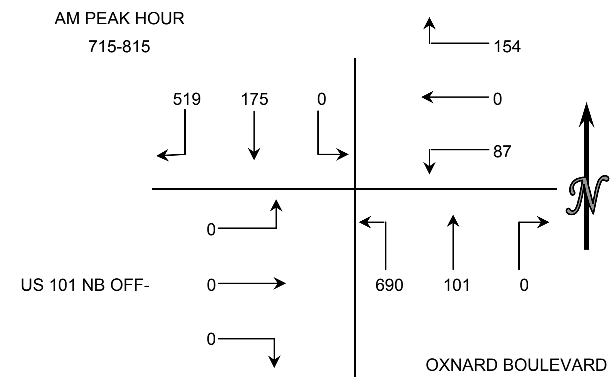
CLIENT:		FEHR AND PEERS
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY JANUARY 17TH, 2008
PERIODS:		7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEVARD
	E/W	US 101 NB OFF- RAMPS
CITY:		OXNARD

15 MIN COUNTS — 7:00 AM TO 9:00 AM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	59	24	0	27	0	19	0	19	111	0	0	0	259
715-730	84	53	0	31	0	11	0	24	153	0	0	0	356
730-745	167	55	0	44	0	19	0	26	176	0	0	0	487
745-800	169	34	0	39	0	25	0	32	211	0	0	0	510
800-815	99	33	0	40	0	32	0	19	150	0	0	0	373
815-830	72	30	0	32	0	45	0	29	137	0	0	0	345
830-845	82	31	0	40	0	25	0	42	132	0	0	0	352
845-900	91	30	0	35	0	34	0	34	132	0	0	0	356

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	479	166	0	141	0	74	0	101	651	0	0	0	1612
715-815	519	175	0	154	0	87	0	101	690	0	0	0	1726
730-830	507	152	0	155	0	121	0	106	674	0	0	0	1715
745-845	422	128	0	151	0	127	0	122	630	0	0	0	1580
800-900	344	124	0	147	0	136	0	124	551	0	0	0	1426

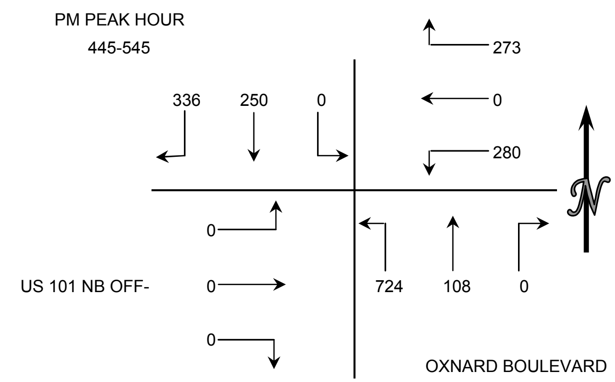


15 MIN COUNTS — 4:00 PM TO 6:00 PM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	50	23	0	53	1	66	0	21	160	0	0	0	374
415-430	62	25	0	53	0	67	0	23	136	0	0	0	366
430-445	70	57	0	53	0	64	0	25	171	0	0	0	440
445-500	83	50	0	65	0	74	0	26	175	0	0	0	473
500-515	101	70	0	76	0	75	0	26	205	0	0	0	553
515-530	77	61	0	72	0	69	0	28	186	0	0	0	493
530-545	75	69	0	60	0	62	0	28	158	0	0	0	452
545-600	79	46	0	69	0	76	0	38	154	0	0	0	462

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	265	155	0	224	1	271	0	95	642	0	0	0	1653
415-515	316	202	0	247	0	280	0	100	687	0	0	0	1832
430-530	331	238	0	266	0	282	0	105	737	0	0	0	1959
445-545	336	250	0	273	0	280	0	108	724	0	0	0	1971
500-600	332	246	0	277	0	282	0	120	703	0	0	0	1960



WILTEC

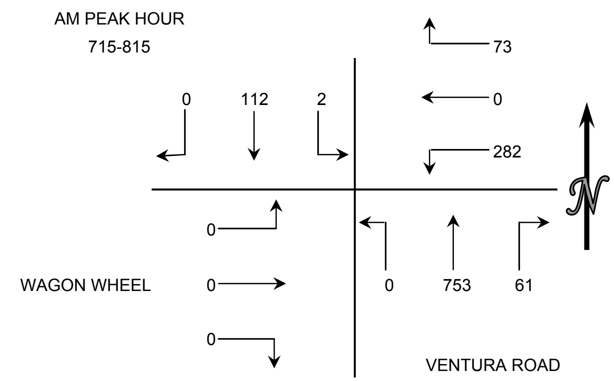
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY JANUARY 17TH, 2008
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S VENTURA ROAD
E/W WAGON WHEEL ROAD
CITY: OXNARD

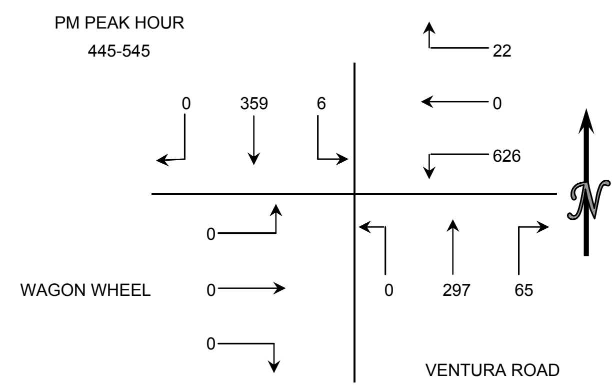
15 MIN COUNTS — 7:00 AM TO 9:00 AM

	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	0	17	1	8	0	61	5	93	0	0	0	0	185
715-730	0	24	0	19	0	95	11	185	0	0	0	0	334
730-745	0	39	1	15	0	66	17	235	0	0	0	0	373
745-800	0	21	1	22	0	65	17	208	0	0	0	0	334
800-815	0	28	0	17	0	56	16	125	0	0	0	0	242
815-830	0	20	1	8	0	65	10	107	0	0	0	0	211
830-845	0	26	1	14	0	43	10	109	0	0	0	0	203
845-900	0	29	2	9	0	59	9	84	0	0	0	0	192
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	0	101	3	64	0	287	50	721	0	0	0	0	1226
715-815	0	112	2	73	0	282	61	753	0	0	0	0	1283
730-830	0	108	3	62	0	252	60	675	0	0	0	0	1160
745-845	0	95	3	61	0	229	53	549	0	0	0	0	990
800-900	0	103	4	48	0	223	45	425	0	0	0	0	848



15 MIN COUNTS — 4:00 PM TO 6:00 PM

	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	0	64	1	5	0	158	14	53	0	0	0	0	295
415-430	0	65	1	4	0	151	11	55	0	0	0	0	287
430-445	0	63	0	7	0	162	9	58	0	0	0	0	299
445-500	0	84	1	3	0	136	18	77	0	0	0	0	319
500-515	0	110	1	11	0	166	19	78	0	0	0	0	385
515-530	0	79	2	2	0	165	14	72	0	0	0	0	334
530-545	0	86	2	6	0	159	14	70	0	0	0	0	337
545-600	0	72	3	1	0	142	14	77	0	0	0	0	309
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	0	276	3	19	0	607	52	243	0	0	0	0	1200
415-515	0	322	3	25	0	615	57	268	0	0	0	0	1290
430-530	0	336	4	23	0	629	60	285	0	0	0	0	1337
445-545	0	359	6	22	0	626	65	297	0	0	0	0	1375
500-600	0	347	8	20	0	632	61	297	0	0	0	0	1365

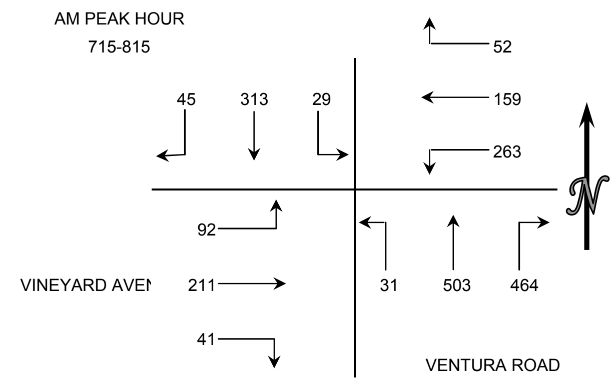


WILTEC
Phone: (626) 564-1944 Fax: (626) 564-0969

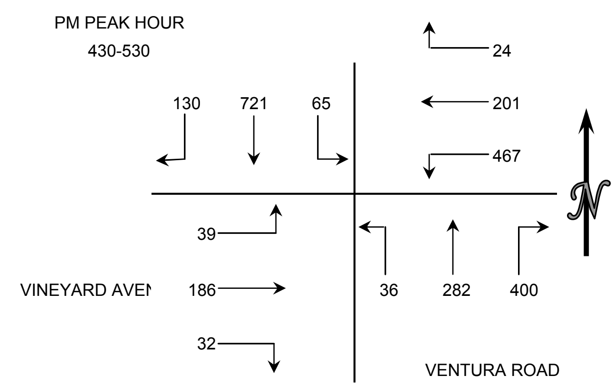
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY JANUARY 17TH, 2008
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S VENTURA ROAD
E/W VINEYARD AVENUE
CITY: OXNARD

15 MIN COUNTS						7:00 AM TO 9:00 AM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	5	61	4	9	30	55	95	87	4	4	42	18	414
715-730	8	85	8	14	40	64	105	98	6	11	43	20	502
730-745	16	75	12	18	54	82	131	141	4	11	62	23	629
745-800	10	77	4	12	37	61	109	155	9	10	51	25	560
800-815	11	76	5	8	28	56	119	109	12	9	55	24	512
815-830	9	64	7	7	30	53	80	89	12	8	35	16	410
830-845	5	59	3	10	25	34	84	74	4	1	30	14	343
845-900	10	56	2	9	28	63	83	61	5	7	29	8	361
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	39	298	28	53	161	262	440	481	23	36	198	86	2105
715-815	45	313	29	52	159	263	464	503	31	41	211	92	2203
730-830	46	292	28	45	149	252	439	494	37	38	203	88	2111
745-845	35	276	19	37	120	204	392	427	37	28	171	79	1825
800-900	35	255	17	34	111	206	366	333	33	25	149	62	1626



15 MIN COUNTS						4:00 PM TO 6:00 PM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	18	149	11	5	48	118	104	61	7	5	35	9	570
415-430	21	157	16	5	36	122	94	56	9	2	53	10	581
430-445	25	153	13	6	48	114	109	79	15	7	52	10	631
445-500	35	180	10	6	51	140	91	61	10	5	40	8	637
500-515	39	212	20	9	59	106	111	69	5	10	43	11	694
515-530	31	176	22	3	43	107	89	73	6	10	51	10	621
530-545	25	160	11	9	45	112	95	64	14	8	43	13	599
545-600	21	125	17	6	37	131	91	50	5	11	30	8	532
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	99	639	50	22	183	494	398	257	41	19	180	37	2419
415-515	120	702	59	26	194	482	405	265	39	24	188	39	2543
430-530	130	721	65	24	201	467	400	282	36	32	186	39	2583
445-545	130	728	63	27	198	465	386	267	35	33	177	42	2551
500-600	116	673	70	27	184	456	386	256	30	39	167	42	2446



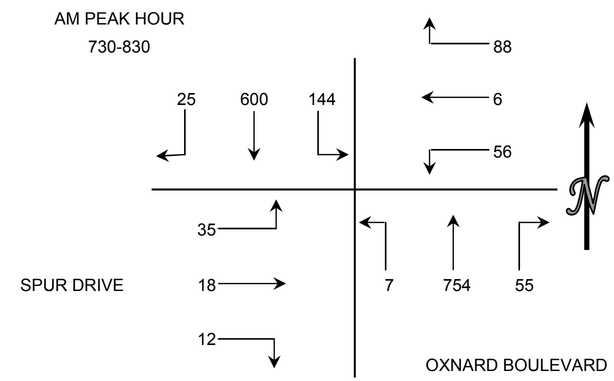
WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

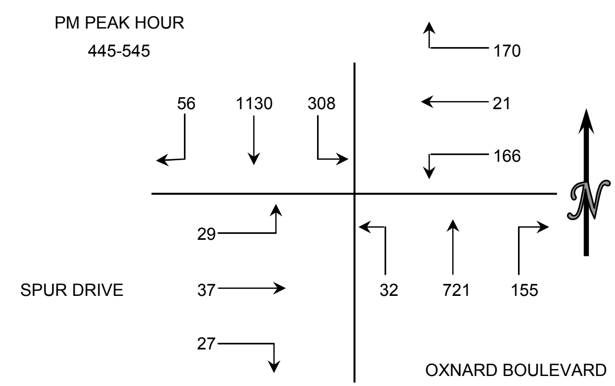
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		FEHR AND PEERS
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY JANUARY 17TH, 2008
PERIODS:		7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	N/S	OXNARD BOULEVARD
	E/W	SPUR DRIVE
CITY:		OXNARD

15 MIN COUNTS						7:00 AM TO 9:00 AM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	7	91	8	14	2	4	7	141	0	2	3	4	283
715-730	1	116	20	13	0	12	7	171	2	5	4	7	358
730-745	4	143	22	18	0	9	8	204	0	5	5	9	427
745-800	6	177	33	24	1	10	8	238	3	3	5	13	521
800-815	8	155	49	20	2	14	21	151	3	2	5	9	439
815-830	7	125	40	26	3	23	18	161	1	2	3	4	413
830-845	7	140	36	21	0	16	19	145	1	5	3	7	400
845-900	4	149	36	27	2	15	13	134	5	3	5	8	401
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	18	527	83	69	3	35	30	754	5	15	17	33	1589
715-815	19	591	124	75	3	45	44	764	8	15	19	38	1745
730-830	25	600	144	88	6	56	55	754	7	12	18	35	1800
745-845	28	597	158	91	6	63	66	695	8	12	16	33	1773
800-900	26	569	161	94	7	68	71	591	10	12	16	28	1653



15 MIN COUNTS						4:00 PM TO 6:00 PM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	14	225	73	45	6	44	33	152	8	19	9	16	644
415-430	11	204	81	51	6	31	28	136	7	8	10	8	581
430-445	12	257	61	48	9	43	25	175	8	12	10	12	672
445-500	20	289	81	37	4	37	27	158	8	9	11	10	691
500-515	9	305	69	44	4	49	41	207	8	3	7	6	752
515-530	18	281	83	47	9	34	34	194	9	11	8	5	733
530-545	9	255	75	42	4	46	53	162	7	4	11	8	676
545-600	12	233	83	50	5	42	43	161	10	7	6	9	661
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	57	975	296	181	25	155	113	621	31	48	40	46	2588
415-515	52	1055	292	180	23	160	121	676	31	32	38	36	2696
430-530	59	1132	294	176	26	163	127	734	33	35	36	33	2848
445-545	56	1130	308	170	21	166	155	721	32	27	37	29	2852
500-600	48	1074	310	183	22	171	171	724	34	25	32	28	2822



WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

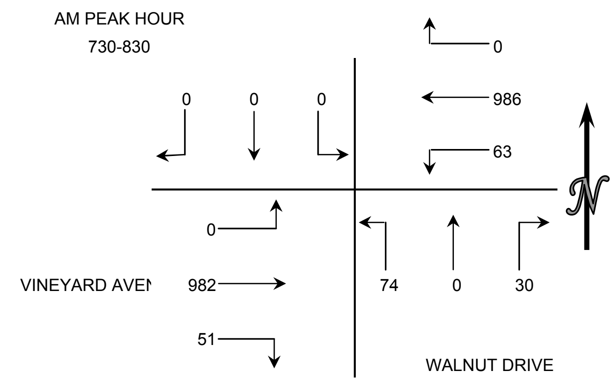
CLIENT:		FEHR AND PEERS
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		THURSDAY JANUARY 17TH, 2008
PERIODS:		7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION:	N/S	WALNUT DRIVE
	E/W	VINEYARD AVENUE
CITY:		OXNARD

15 MIN COUNTS — 7:00 AM TO 9:00 AM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	0	196	5	7	0	13	7	175	0	403
715-730	0	0	0	0	224	7	3	0	17	8	192	0	451
730-745	0	0	0	0	234	10	6	0	20	7	254	0	531
745-800	0	0	0	0	258	22	10	0	19	21	279	0	609
800-815	0	0	0	0	256	23	12	0	9	13	235	0	548
815-830	0	0	0	0	238	8	2	0	26	10	214	0	498
830-845	0	0	0	0	240	19	7	0	32	11	202	0	511
845-900	0	0	0	0	224	9	0	0	14	11	187	0	445

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	0	0	0	912	44	26	0	69	43	900	0	1994
715-815	0	0	0	0	972	62	31	0	65	49	960	0	2139
730-830	0	0	0	0	986	63	30	0	74	51	982	0	2186
745-845	0	0	0	0	992	72	31	0	86	55	930	0	2166
800-900	0	0	0	0	958	59	21	0	81	45	838	0	2002

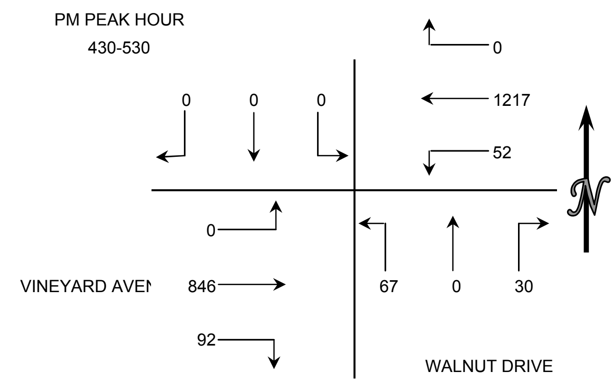


15 MIN COUNTS — 4:00 PM TO 6:00 PM

PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	0	0	0	0	327	8	7	0	15	15	192	0	564
415-430	0	0	0	0	294	10	10	0	15	23	190	0	542
430-445	0	0	0	0	299	7	8	0	17	20	209	0	560
445-500	0	0	0	0	305	13	11	0	15	20	196	0	560
500-515	0	0	0	0	328	28	9	0	19	26	214	0	624
515-530	0	0	0	0	285	4	2	0	16	26	227	0	560
530-545	0	0	0	0	268	11	2	0	26	24	197	0	528
545-600	0	0	0	0	222	4	0	0	18	21	198	0	463

HOUR TOTALS

TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	0	0	0	0	1225	38	36	0	62	78	787	0	2226
415-515	0	0	0	0	1226	58	38	0	66	89	809	0	2286
430-530	0	0	0	0	1217	52	30	0	67	92	846	0	2304
445-545	0	0	0	0	1186	56	24	0	76	96	834	0	2272
500-600	0	0	0	0	1103	47	13	0	79	97	836	0	2175



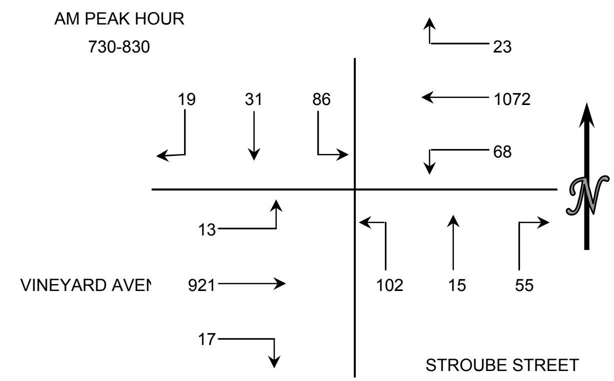
WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

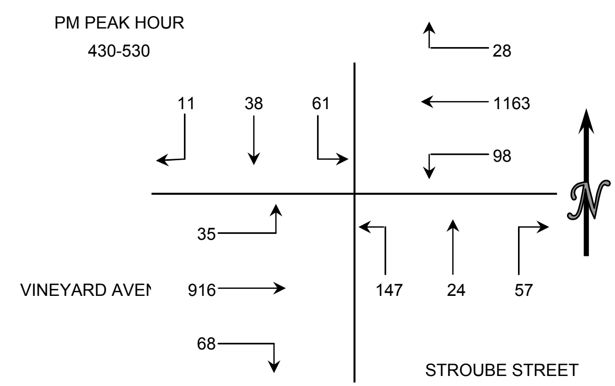
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY JANUARY 17TH, 2008
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S STROUBE STREET
E/W VINEYARD AVENUE
CITY: OXNARD

15 MIN COUNTS					7:00 AM TO 9:00 AM								
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	5	3	24	2	218	8	6	0	12	9	174	6	467
715-730	3	2	22	4	222	8	11	3	37	13	179	4	508
730-745	6	9	28	6	268	14	10	0	25	5	223	2	596
745-800	6	11	24	4	289	22	17	3	28	3	246	3	656
800-815	4	2	13	6	253	16	16	8	20	5	236	1	580
815-830	3	9	21	7	262	16	12	4	29	4	216	7	590
830-845	7	4	19	7	269	18	15	3	23	5	212	1	583
845-900	7	8	11	9	297	14	6	4	12	4	179	4	555
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	20	25	98	16	997	52	44	6	102	30	822	15	2227
715-815	19	24	87	20	1032	60	54	14	110	26	884	10	2340
730-830	19	31	86	23	1072	68	55	15	102	17	921	13	2422
745-845	20	26	77	24	1073	72	60	18	100	17	910	12	2409
800-900	21	23	64	29	1081	64	49	19	84	18	843	13	2308



15 MIN COUNTS					4:00 PM TO 6:00 PM								
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	7	9	16	5	307	16	9	4	32	11	211	8	635
415-430	4	13	14	7	299	12	10	3	38	15	227	15	657
430-445	1	11	17	9	298	20	13	7	47	15	238	6	682
445-500	2	11	17	6	297	25	16	5	34	17	210	7	647
500-515	4	9	17	7	290	25	10	5	29	15	237	8	656
515-530	4	7	10	6	278	28	18	7	37	21	231	14	661
530-545	3	15	16	16	245	10	15	9	31	16	257	18	651
545-600	8	11	26	6	241	18	13	7	28	15	247	16	636
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	14	44	64	27	1201	73	48	19	151	58	886	36	2621
415-515	11	44	65	29	1184	82	49	20	148	62	912	36	2642
430-530	11	38	61	28	1163	98	57	24	147	68	916	35	2646
445-545	13	42	60	35	1110	88	59	26	131	69	935	47	2615
500-600	19	42	69	35	1054	81	56	28	125	67	972	56	2604

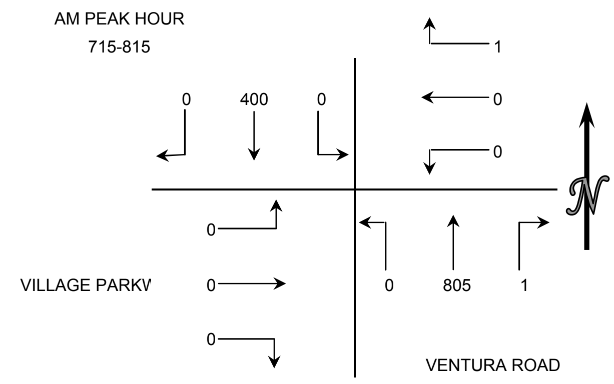


WILTEC
Phone: (626) 564-1944 Fax: (626) 564-0969

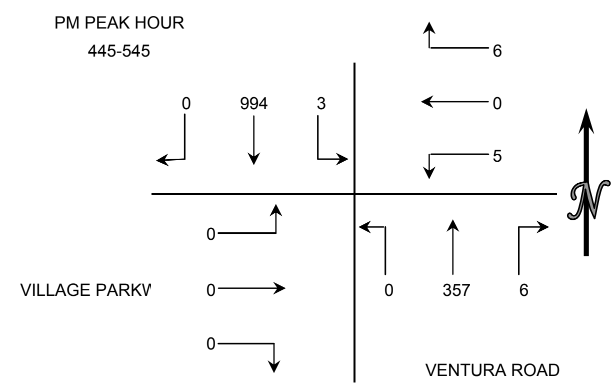
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: OXNARD TRAFFIC COUNTS
DATE: THURSDAY JANUARY 17TH, 2008
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S VENTURA ROAD
E/W VILLAGE PARKWAY
CITY: OXNARD

15 MIN COUNTS						7:00 AM TO 9:00 AM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	0	67	0	0	0	0	1	102	0	0	0	0	170
715-730	0	114	0	0	0	0	0	195	0	0	0	0	309
730-745	0	113	0	1	0	0	1	257	0	0	0	0	372
745-800	0	97	0	0	0	0	0	224	0	0	0	0	321
800-815	0	76	0	0	0	0	0	129	0	0	0	0	205
815-830	0	73	0	0	0	0	0	128	0	0	0	0	201
830-845	0	77	0	0	0	1	0	124	0	0	0	0	202
845-900	0	86	1	0	0	0	2	92	0	0	0	0	181
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	0	391	0	1	0	0	2	778	0	0	0	0	1172
715-815	0	400	0	1	0	0	1	805	0	0	0	0	1207
730-830	0	359	0	1	0	0	1	738	0	0	0	0	1099
745-845	0	323	0	0	0	1	0	605	0	0	0	0	929
800-900	0	312	1	0	0	1	2	473	0	0	0	0	789



15 MIN COUNTS						4:00 PM TO 6:00 PM							
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	0	221	2	2	0	2	3	67	0	0	0	0	297
415-430	0	209	3	3	0	0	2	62	0	0	0	0	279
430-445	0	216	0	4	0	1	0	59	0	0	0	0	280
445-500	0	243	2	2	0	2	1	94	0	0	0	0	344
500-515	0	265	0	2	0	1	1	94	0	0	0	0	363
515-530	0	249	1	1	0	1	3	84	0	0	0	0	339
530-545	0	237	0	1	0	1	1	85	0	0	0	0	325
545-600	0	227	0	2	0	2	0	87	0	0	0	0	318
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	0	889	7	11	0	5	6	282	0	0	0	0	1200
415-515	0	933	5	11	0	4	4	309	0	0	0	0	1266
430-530	0	973	3	9	0	5	5	331	0	0	0	0	1326
445-545	0	994	3	6	0	5	6	357	0	0	0	0	1371
500-600	0	978	1	6	0	5	5	350	0	0	0	0	1345



Counts Provided by the City of Oxnard

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ESPLANADE DRIVE
E/W VINEYARD AVENUE
CITY: OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	5	0	5	0	0	0	21	0	21	8	0	8	133	8	141	30	0	30
715-730	5	2	7	0	0	0	17	1	18	5	0	5	164	6	170	41	0	41
730-745	8	0	8	0	0	0	22	0	22	9	0	9	214	10	224	75	0	75
745-800	8	0	8	4	0	4	18	0	18	14	0	14	197	10	207	95	0	95
800-815	12	0	12	0	0	0	22	0	22	15	0	15	174	16	190	94	0	94
815-830	7	0	7	4	0	4	19	0	19	11	0	11	176	5	181	67	0	67
830-845	9	0	9	4	0	4	14	1	15	13	0	13	191	2	193	86	0	86
845-900	15	0	15	3	0	3	19	0	19	11	1	12	203	4	207	65	0	65
900-915	11	3	14	4	0	4	22	1	23	12	0	12	152	7	159	53	0	53
915-930	19	0	19	5	0	5	26	2	28	13	0	13	159	3	162	29	0	29
930-945	13	0	13	5	0	5	35	0	35	12	1	13	171	3	174	43	3	46
945-1000	15	1	16	2	0	2	23	1	24	20	1	21	140	5	145	37	1	38
HOUR TOTALS																		
700-800	26	2	28	4	0	4	78	1	79	36	0	36	708	34	742	241	0	241
715-815	33	2	35	4	0	4	79	1	80	43	0	43	749	42	791	305	0	305
730-830	35	0	35	8	0	8	81	0	81	49	0	49	761	41	802	331	0	331
745-845	36	0	36	12	0	12	73	1	74	53	0	53	738	33	771	342	0	342
800-900	43	0	43	11	0	11	74	1	75	50	1	51	744	27	771	312	0	312
815-915	42	3	45	15	0	15	74	2	76	47	1	48	722	18	740	271	0	271
830-930	54	3	57	16	0	16	81	4	85	49	1	50	705	16	721	233	0	233
845-945	58	3	61	17	0	17	102	3	105	48	2	50	685	17	702	190	3	193
900-1000	58	4	62	16	0	16	106	4	110	57	2	59	622	18	640	162	4	166

PEAK HOUR
715-815

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	18	0	18	2	0	2	10	0	10	10	0	10	379	3	382	7	0	7	623	11	634
715-730	20	1	21	1	0	1	13	0	13	12	0	12	469	8	477	6	0	6	753	18	771
730-745	21	0	21	2	0	2	7	0	7	9	0	9	435	10	445	8	0	8	810	20	830
745-800	24	1	25	1	0	1	13	0	13	10	0	10	431	8	439	16	0	16	831	19	850
800-815	16	0	16	2	0	2	19	0	19	14	0	14	317	6	323	24	0	24	709	22	731
815-830	30	0	30	2	0	2	26	0	26	14	0	14	291	9	300	28	0	28	675	14	689
830-845	30	0	30	2	0	2	22	0	22	23	0	23	308	4	312	21	0	21	723	7	730
845-900	44	1	45	4	0	4	30	0	30	15	0	15	270	11	281	23	0	23	702	17	719
900-915	30	0	30	6	0	6	24	0	24	22	0	22	204	4	208	18	0	18	558	15	573
915-930	36	0	36	8	0	8	22	0	22	16	0	16	208	6	214	27	0	27	568	11	579
930-945	39	1	40	8	0	8	39	0	39	25	0	25	216	8	224	33	2	35	639	18	657
945-1000	29	0	29	8	0	8	40	0	40	10	0	10	195	5	200	31	0	31	550	14	564
HOUR TOTALS																					
700-800	83	2	85	6	0	6	43	0	43	41	0	41	1714	29	1743	37	0	37	3017	68	3085
715-815	81	2	83	6	0	6	52	0	52	45	0	45	1652	32	1684	54	0	54	3103	79	3182
730-830	91	1	92	7	0	7	65	0	65	47	0	47	1474	33	1507	76	0	76	3025	75	3100
745-845	100	1	101	7	0	7	80	0	80	61	0	61	1347	27	1374	89	0	89	2938	62	3000
800-900	120	1	121	10	0	10	97	0	97	66	0	66	1186	30	1216	96	0	96	2809	60	2869
815-915	134	1	135	14	0	14	102	0	102	74	0	74	1073	28	1101	90	0	90	2658	53	2711
830-930	140	1	141	20	0	20	98	0	98	76	0	76	990	25	1015	89	0	89	2551	50	2601
845-945	149	2	151	26	0	26	115	0	115	78	0	78	898	29	927	101	2	103	2467	61	2528
900-1000	134	1	135	30	0	30	125	0	125	73	0	73	823	23	846	109	2	111	2315	58	2373

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S ESPLANADE DRIVE
E/W VINEYARD AVENUE
CITY: OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COU	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**
300-315	59	0	59	9	0	9	64	0	64	37	0	37	335	2	337	38	0	38
315-330	38	0	38	2	0	2	67	0	67	54	0	54	276	4	280	56	0	56
330-345	41	0	41	4	0	4	57	0	57	56	0	56	296	4	300	40	0	40
345-400	50	0	50	7	0	7	37	0	37	59	0	59	309	4	313	50	1	51
400-415	54	1	55	8	1	9	60	0	60	60	0	60	327	2	329	75	0	75
415-430	50	0	50	10	0	10	76	1	77	59	0	59	362	2	364	89	0	89
430-445	45	0	45	3	0	3	75	0	75	20	0	20	401	3	404	56	0	56
445-500	21	0	21	0	0	0	71	0	71	33	0	33	368	2	370	31	0	31
500-515	25	0	25	4	0	4	42	0	42	36	0	36	425	3	428	33	0	33
515-530	45	0	45	4	0	4	41	0	41	58	0	58	368	0	368	31	0	31
530-545	41	0	41	4	0	4	77	0	77	30	0	30	384	2	386	28	0	28
545-600	31	0	31	4	0	4	57	0	57	43	0	43	385	2	387	27	0	27
HOUR TOTALS																		
300-400	188	0	188	22	0	22	225	0	225	206	0	206	1216	14	1230	184	1	185
315-415	183	1	184	21	1	22	221	0	221	229	0	229	1208	14	1222	221	1	222
330-430	195	1	196	29	1	30	230	1	231	234	0	234	1294	12	1306	254	1	255
345-445	199	1	200	28	1	29	248	1	249	198	0	198	1399	11	1410	270	1	271
400-500	170	1	171	21	1	22	282	1	283	172	0	172	1458	9	1467	251	0	251
415-515	141	0	141	17	0	17	264	1	265	148	0	148	1556	10	1566	209	0	209
430-530	136	0	136	11	0	11	229	0	229	147	0	147	1562	8	1570	151	0	151
445-545	132	0	132	12	0	12	231	0	231	157	0	157	1545	7	1552	123	0	123
500-600	142	0	142	16	0	16	217	0	217	167	0	167	1562	7	1569	119	0	119

PEAK HOUR
445-545

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COU	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**	**CAR**	**TRUCK**	**TOTAL**
300-315	56	0	56	7	0	7	39	0	39	23	0	23	297	12	309	40	0	40	1004	14	1018
315-330	44	0	44	15	0	15	39	0	39	22	0	22	309	4	313	39	0	39	961	8	969
330-345	33	0	33	6	1	7	34	0	34	27	0	27	302	4	306	62	0	62	958	9	967
345-400	47	0	47	10	0	10	32	0	32	27	0	27	302	7	309	58	0	58	988	12	1000
400-415	73	0	73	10	0	10	49	1	50	16	0	16	230	5	235	44	0	44	1006	10	1016
415-430	46	0	46	10	0	10	43	0	43	21	0	21	298	2	300	47	0	47	1111	5	1116
430-445	63	0	63	9	0	9	45	0	45	24	0	24	287	4	291	59	0	59	1087	7	1094
445-500	124	0	124	8	0	8	69	0	69	34	0	34	380	1	381	66	0	66	1205	3	1208
500-515	62	0	62	23	0	23	40	0	40	14	0	14	286	4	290	46	0	46	1036	7	1043
515-530	75	0	75	18	0	18	60	0	60	21	0	21	352	4	356	61	0	61	1134	4	1138
530-545	81	0	81	10	0	10	63	0	63	21	0	21	330	4	334	49	0	49	1118	6	1124
545-600	67	0	67	10	0	10	48	0	48	12	0	12	345	5	350	47	0	47	1076	7	1083
HOUR TOTALS																					
300-400	180	0	180	38	1	39	144	0	144	99	0	99	1210	27	1237	199	0	199	3911	43	3954
315-415	197	0	197	41	1	42	154	1	155	92	0	92	1143	20	1163	203	0	203	3913	39	3952
330-430	199	0	199	36	1	37	158	1	159	91	0	91	1132	18	1150	211	0	211	4063	36	4099
345-445	229	0	229	39	0	39	169	1	170	88	0	88	1117	18	1135	208	0	208	4192	34	4226
400-500	306	0	306	37	0	37	206	1	207	95	0	95	1195	12	1207	216	0	216	4409	25	4434
415-515	295	0	295	50	0	50	197	0	197	93	0	93	1251	11	1262	218	0	218	4439	22	4461
430-530	324	0	324	58	0	58	214	0	214	93	0	93	1305	13	1318	232	0	232	4462	21	4483
445-545	342	0	342	59	0	59	232	0	232	90	0	90	1348	13	1361	222	0	222	4493	20	4513
500-600	285	0	285	61	0	61	211	0	211	68	0	68	1313	17	1330	203	0	203	4364	24	4388

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		7:00 AM TO 10:00 AM
INTERSECTION:	N/S	OXNARD BOULEVARD
	E/W	VINEYARD AVENUE
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	19	0	19	94	4	98	15	0	15	2	0	2	81	2	83	90	2	92
715-730	22	1	23	103	5	108	16	1	17	0	0	0	79	4	83	91	8	99
730-745	27	0	27	148	2	150	29	2	31	3	0	3	59	6	65	109	9	118
745-800	12	1	13	151	5	156	40	0	40	4	0	4	193	5	198	149	5	154
800-815	26	0	26	122	5	127	26	1	27	3	0	3	100	5	105	135	4	139
815-830	25	0	25	123	5	128	18	0	18	3	0	3	84	2	86	118	5	123
830-845	25	0	25	150	1	151	25	0	25	4	0	4	93	1	94	138	5	143
845-900	23	1	24	131	5	136	11	0	11	4	0	4	129	2	131	140	5	145
900-915	16	0	16	140	3	143	15	0	15	5	0	5	81	1	82	111	4	115
915-930	22	2	24	120	3	123	22	1	23	4	0	4	71	2	73	127	2	129
930-945	19	0	19	129	4	133	13	0	13	3	0	3	91	3	94	127	2	129
945-1000	21	0	21	138	5	143	15	1	16	7	0	7	73	1	74	124	7	131
HOUR TOTALS																		
700-800	80	2	82	496	16	512	100	3	103	9	0	9	412	17	429	439	24	463
715-815	87	2	89	524	17	541	111	4	115	10	0	10	431	20	451	484	26	510
730-830	90	1	91	544	17	561	113	3	116	13	0	13	436	18	454	511	23	534
745-845	88	1	89	546	16	562	109	1	110	14	0	14	470	13	483	540	19	559
800-900	99	1	100	526	16	542	80	1	81	14	0	14	406	10	416	531	19	550
815-915	89	1	90	544	14	558	69	0	69	16	0	16	387	6	393	507	19	526
830-930	86	3	89	541	12	553	73	1	74	17	0	17	374	6	380	516	16	532
845-945	80	3	83	520	15	535	61	1	62	16	0	16	372	8	380	505	13	518
900-1000	78	2	80	527	15	542	65	2	67	19	0	19	316	7	323	489	15	504

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	135	4	139	90	0	90	18	0	18	31	0	31	208	0	208	55	2	57	838	14	852
715-730	176	4	180	116	5	121	21	0	21	23	0	23	319	3	322	58	0	58	1024	31	1055
730-745	182	8	190	156	4	160	31	2	33	70	2	72	332	2	334	82	0	82	1228	37	1265
745-800	198	3	201	127	4	131	16	0	16	50	0	50	254	1	255	70	0	70	1264	24	1288
800-815	202	6	208	135	4	139	31	0	31	44	0	44	238	4	242	74	1	75	1136	30	1166
815-830	122	4	126	88	6	94	36	2	38	30	0	30	182	5	187	60	0	60	889	29	918
830-845	153	2	155	103	4	107	10	1	11	18	0	18	174	2	176	53	0	53	946	16	962
845-900	112	7	119	107	2	109	16	0	16	17	0	17	176	2	178	50	0	50	916	24	940
900-915	124	7	131	101	8	109	22	0	22	13	1	14	126	2	128	48	0	48	802	26	828
915-930	141	4	145	91	6	97	26	1	27	10	0	10	107	1	108	28	1	29	769	23	792
930-945	124	5	129	108	2	110	17	1	18	11	1	12	109	5	114	44	0	44	795	23	818
945-1000	148	2	150	113	3	116	17	0	17	17	0	17	105	4	109	40	0	40	818	23	841
HOUR TOTALS																					
700-800	691	19	710	489	13	502	86	2	88	174	2	176	1113	6	1119	265	2	267	4354	106	4460
715-815	758	21	779	534	17	551	99	2	101	187	2	189	1143	10	1153	284	1	285	4652	122	4774
730-830	704	21	725	506	18	524	114	4	118	194	2	196	1006	12	1018	286	1	287	4517	120	4637
745-845	675	15	690	453	18	471	93	3	96	142	0	142	848	12	860	257	1	258	4235	99	4334
800-900	589	19	608	433	16	449	93	3	96	109	0	109	770	13	783	237	1	238	3887	99	3986
815-915	511	20	531	399	20	419	84	3	87	78	1	79	658	11	669	211	0	211	3553	95	3648
830-930	530	20	550	402	20	422	74	2	76	58	1	59	583	7	590	179	1	180	3433	89	3522
845-945	501	23	524	407	18	425	81	2	83	51	2	53	518	10	528	170	1	171	3282	96	3378
900-1000	537	18	555	413	19	432	82	2	84	51	2	53	447	12	459	160	1	161	3184	95	3279

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEVARD
E/W VINEYARD AVENUE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	43	0	43	164	2	166	24	0	24	2	0	2	184	0	184	195	3	198
315-330	44	2	46	195	5	200	30	0	30	3	0	3	199	4	203	194	2	196
330-345	47	0	47	176	6	182	29	0	29	11	0	11	184	0	184	211	4	215
345-400	57	0	57	195	2	197	37	0	37	3	0	3	202	0	202	191	1	192
400-415	57	0	57	204	1	205	43	0	43	5	0	5	235	1	236	217	6	223
415-430	56	0	56	225	2	227	43	0	43	2	0	2	236	4	240	227	4	231
430-445	46	2	48	226	4	230	35	0	35	1	0	1	192	1	193	208	1	209
445-500	57	0	57	196	2	198	32	0	32	3	0	3	226	1	227	224	1	225
500-515	36	0	36	186	0	186	57	0	57	2	0	2	259	0	259	263	3	266
515-530	38	1	39	231	1	232	44	1	45	5	0	5	249	0	249	224	0	224
530-545	34	0	34	215	1	216	49	0	49	5	0	5	281	1	282	215	2	217
545-600	73	0	73	202	2	204	39	0	39	11	0	11	221	0	221	199	0	199
HOUR TOTALS																		
300-400	191	2	193	730	15	745	120	0	120	19	0	19	769	4	773	791	10	801
315-415	205	2	207	770	14	784	139	0	139	22	0	22	820	5	825	813	13	826
330-430	217	0	217	800	11	811	152	0	152	21	0	21	857	5	862	846	15	861
345-445	216	2	218	850	9	859	158	0	158	11	0	11	865	6	871	843	12	855
400-500	216	2	218	851	9	860	153	0	153	11	0	11	889	7	896	876	12	888
415-515	195	2	197	833	8	841	167	0	167	8	0	8	913	6	919	922	9	931
430-530	177	3	180	839	7	846	168	1	169	11	0	11	926	2	928	919	5	924
445-545	165	1	166	828	4	832	182	1	183	15	0	15	1015	2	1017	926	6	932
500-600	181	1	182	834	4	838	189	1	190	23	0	23	1010	1	1011	901	5	906

PEAK HOUR
445-545

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	183	5	188	125	2	127	52	1	53	30	0	30	142	7	149	42	1	43	1186	21	1207
315-330	200	2	202	122	3	125	46	0	46	34	1	35	159	6	165	40	1	41	1266	26	1292
330-345	216	3	219	132	4	136	44	1	45	35	0	35	149	2	151	43	3	46	1277	23	1300
345-400	176	6	182	159	2	161	57	0	57	29	0	29	170	0	170	57	0	57	1333	11	1344
400-415	197	2	199	141	3	144	27	0	27	24	0	24	142	0	142	37	0	37	1329	13	1342
415-430	169	4	173	130	1	131	59	0	59	28	0	28	133	1	134	60	0	60	1368	16	1384
430-445	201	3	204	132	1	133	70	0	70	30	0	30	167	2	169	59	0	59	1367	14	1381
445-500	228	3	231	137	3	140	44	0	44	40	0	40	175	0	175	67	0	67	1429	10	1439
500-515	237	2	239	180	2	182	77	0	77	40	0	40	183	0	183	65	0	65	1585	7	1592
515-530	204	2	206	193	4	197	89	0	89	43	0	43	122	3	125	57	0	57	1499	12	1511
530-545	206	4	210	165	2	167	69	0	69	44	0	44	186	1	187	62	0	62	1531	11	1542
545-600	209	6	215	150	0	150	49	0	49	43	0	43	183	0	183	46	0	46	1425	8	1433
HOUR TOTALS																					
300-400	775	16	791	538	11	549	199	2	201	128	1	129	620	15	635	182	5	187	5062	81	5143
315-415	789	13	802	554	12	566	174	1	175	122	1	123	620	8	628	177	4	181	5205	73	5278
330-430	758	15	773	562	10	572	187	1	188	116	0	116	594	3	597	197	3	200	5307	63	5370
345-445	743	15	758	562	7	569	213	0	213	111	0	111	612	3	615	213	0	213	5397	54	5451
400-500	795	12	807	540	8	548	200	0	200	122	0	122	617	3	620	223	0	223	5493	53	5546
415-515	835	12	847	579	7	586	250	0	250	138	0	138	658	3	661	251	0	251	5749	47	5796
430-530	870	10	880	642	10	652	280	0	280	153	0	153	647	5	652	248	0	248	5880	43	5923
445-545	875	11	886	675	11	686	279	0	279	167	0	167	666	4	670	251	0	251	6044	40	6084
500-600	856	14	870	688	8	696	284	0	284	170	0	170	674	4	678	230	0	230	6040	38	6078

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 A.M. TO 10:00 A.M.
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

15 MIN COUNTS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-715	11	52	42	6	11	53	0	24	4	44	45	1	15	25	121	34	4	37	118	20	667
715-730	10	97	42	6	3	30	0	20	5	40	38	4	14	19	121	23	4	39	111	19	645
730-745	12	140	73	8	3	38	0	29	0	40	47	2	42	19	121	46	6	63	135	16	840
745-800	8	148	93	19	7	31	0	27	6	55	55	1	58	10	155	38	6	42	143	22	924
800-815	12	97	73	10	4	43	0	20	1	33	56	4	38	6	125	22	8	49	106	25	732
815-830	13	80	61	16	8	38	2	19	4	34	51	6	18	15	100	35	4	35	69	20	628
830-845	10	81	35	11	8	54	2	20	6	64	62	5	6	11	100	33	6	26	67	13	620
845-900	12	108	51	11	5	40	2	10	6	29	34	4	9	14	107	36	11	34	81	17	621
900-915	15	84	56	7	9	55	2	10	2	29	52	8	11	11	105	51	6	43	51	15	622
915-930	13	99	82	11	5	45	1	10	4	27	30	2	6	13	96	40	9	35	62	17	607
930-945	10	85	46	13	6	52	3	13	4	36	40	4	2	7	95	23	9	24	64	13	549
945-1000	18	97	51	11	9	50	1	15	3	35	33	9	12	8	108	27	10	20	47	18	582
HOUR TOTALS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-800	41	437	250	39	24	152	0	100	15	179	185	8	129	73	518	141	20	181	507	77	3076
715-815	42	482	281	43	17	142	0	96	12	168	196	11	152	54	522	129	24	193	495	82	3141
730-830	45	465	300	53	22	150	2	95	11	162	209	13	156	50	501	141	24	189	453	83	3124
745-845	43	406	262	56	27	166	4	86	17	186	224	16	120	42	480	128	24	152	385	80	2904
800-900	47	366	220	48	25	175	6	69	17	160	203	19	71	46	432	126	29	144	323	75	2601
815-915	50	353	203	45	30	187	8	59	18	156	199	23	44	51	412	155	27	138	268	65	2491
830-930	50	372	224	40	27	194	7	50	18	149	178	19	32	49	408	160	32	138	261	62	2470
845-945	50	376	235	42	25	192	8	43	16	121	156	18	28	45	403	150	35	136	258	62	2399
900-1000	56	365	235	42	29	202	7	48	13	127	155	23	31	39	404	141	34	122	224	63	2360

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
CITY: OXNARD

15 MIN COUNTS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-315	18	157	72	21	13	82	7	36	1	55	64	5	19	11	150	40	18	28	56	30	883
315-330	16	170	86	11	8	113	1	35	6	53	64	10	21	12	158	54	20	38	62	25	963
330-345	15	210	73	18	7	89	2	38	6	60	87	19	15	4	122	34	10	25	51	23	908
345-400	16	202	73	18	8	84	0	27	5	67	70	12	23	8	116	29	17	43	78	15	911
400-415	15	218	98	10	12	105	0	47	4	51	78	10	18	9	124	36	13	28	47	10	933
415-430	20	189	85	6	14	126	0	56	2	68	97	18	32	6	155	41	10	33	71	15	1044
430-445	18	190	81	6	8	124	1	50	3	65	94	10	38	14	156	45	20	39	83	19	1064
445-500	19	234	106	10	17	113	0	53	2	64	92	14	23	5	130	31	14	39	63	18	1047
500-515	16	197	87	7	10	123	0	62	4	90	124	30	20	10	126	35	13	48	47	28	1077
515-530	23	231	97	17	6	100	0	43	1	56	100	17	24	5	125	30	11	43	49	20	998
530-545	18	218	68	12	13	101	0	47	5	68	120	19	14	8	151	30	19	42	51	27	1031
545-600	21	199	83	7	10	121	0	37	6	76	95	14	17	6	129	42	25	45	71	21	1025
HOUR TOTALS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-400	65	739	304	68	36	368	10	136	18	235	285	46	78	35	546	157	65	134	247	93	3665
315-415	62	800	330	57	35	391	3	147	21	231	299	51	77	33	520	153	60	134	238	73	3715
330-430	66	819	329	52	41	404	2	168	17	246	332	59	88	27	517	140	50	129	247	63	3796
345-445	69	799	337	40	42	439	1	180	14	251	339	50	111	37	551	151	60	143	279	59	3952
400-500	72	831	370	32	51	468	1	206	11	248	361	52	111	34	565	153	57	139	264	62	4088
415-515	73	810	359	29	49	486	1	221	11	287	407	72	113	35	567	152	57	159	264	80	4232
430-530	76	852	371	40	41	460	1	208	10	275	410	71	105	34	537	141	58	169	242	85	4186
445-545	76	880	358	46	46	437	0	205	12	278	436	80	81	28	532	126	57	172	210	93	4153
500-600	78	845	335	43	39	445	0	189	16	290	439	80	75	29	531	137	68	178	218	96	4131

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 A.M. TO 10:00 A.M.
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

TRUCKS

15 MIN COUNTS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-715	0	2	2	0	1	7	0	2	0	1	0	0	0	0	1	0	0	0	0	0	16
715-730	0	1	1	0	0	4	0	1	0	0	0	0	0	0	1	0	0	0	1	0	9
730-745	0	2	2	0	0	4	0	1	0	0	0	0	0	0	1	0	0	1	0	0	11
745-800	0	1	1	1	0	4	0	1	1	0	1	0	0	0	0	0	0	0	2	0	12
800-815	1	5	0	0	0	4	0	3	0	0	1	0	0	0	5	0	0	0	1	1	21
815-830	1	2	2	2	0	1	0	0	0	2	1	0	0	1	0	0	0	1	5	0	18
830-845	1	2	1	2	1	7	0	0	0	0	1	0	0	1	1	0	0	0	2	0	19
845-900	1	0	0	0	0	4	0	0	0	0	0	1	0	3	3	0	0	2	4	1	19
900-915	4	1	4	0	2	6	2	1	0	0	0	0	0	1	3	1	0	3	1	0	29
915-930	2	3	1	0	2	5	0	0	0	1	2	0	0	1	1	0	0	0	8	0	26
930-945	0	1	3	0	3	11	0	4	0	0	1	0	0	0	3	0	0	0	1	0	27
945-1000	1	1	0	0	1	3	0	1	0	1	1	0	0	1	3	0	0	1	3	0	17
HOUR TOTALS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
700-800	0	6	6	1	1	19	0	5	1	1	1	0	0	0	3	0	0	1	3	0	48
715-815	1	9	4	1	0	16	0	6	1	0	2	0	0	0	7	0	0	1	4	1	53
730-830	2	10	5	3	0	13	0	5	1	2	3	0	0	1	6	0	0	2	8	1	62
745-845	3	10	4	5	1	16	0	4	1	2	4	0	0	2	6	0	0	1	10	1	70
800-900	4	9	3	4	1	16	0	3	0	2	3	1	0	5	9	0	0	3	12	2	77
815-915	7	5	7	4	3	18	2	1	0	2	2	1	0	6	7	1	0	6	12	1	85
830-930	8	6	6	2	5	22	2	1	0	1	3	1	0	6	8	1	0	5	15	1	93
845-945	7	5	8	0	7	26	2	5	0	1	3	1	0	5	10	1	0	5	14	1	101
900-1000	7	6	8	0	8	25	2	6	0	2	4	0	0	3	10	1	0	4	13	0	99

5-LEG INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S OXNARD BOULEARD/SAVIERS ROAD
E/W WOOLEY ROAD
OXNARD

TRUCKS

15 MIN COUNTS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-315	0	1	0	0	1	3	1	0	0	0	0	0	0	1	0	1	0	4	1	0	13
315-330	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	0	10
330-345	0	1	1	1	0	1	0	0	1	1	4	0	0	0	0	0	0	0	1	1	12
345-400	0	3	1	0	1	2	0	0	1	1	2	0	0	1	1	0	0	1	1	0	15
400-415	0	0	3	0	1	1	0	0	0	0	0	0	0	0	0	0	1	2	2	0	10
415-430	0	2	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	0	4	0	12
430-445	0	3	3	0	2	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	11
445-500	0	0	2	0	0	3	0	0	0	1	0	0	0	0	0	0	0	1	3	0	10
500-515	0	2	1	0	3	0	0	0	0	1	1	0	0	0	1	0	0	1	2	0	12
515-530	0	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	2	0	11
530-545	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	6
545-600	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4
HOUR TOTALS																					
	SB OXNARD BLVD				WB WOOLEY RD				NWB OXNARD BLVD				NB SAVIERS				EB WOOLEY RD				
PERIOD	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	TOTALS
300-400	0	5	6	1	2	6	1	0	2	3	6	0	1	2	1	2	0	6	5	1	50
315-415	0	4	9	1	2	4	0	0	2	3	6	0	1	1	1	1	1	4	6	1	47
330-430	0	6	6	1	2	5	0	2	2	2	8	0	0	1	1	0	1	3	8	1	49
345-445	0	8	8	0	4	5	0	3	1	1	4	0	0	1	1	1	1	3	7	0	48
400-500	0	5	9	0	3	6	0	3	0	1	2	0	0	0	0	1	1	3	9	0	43
415-515	0	7	7	0	5	5	0	3	0	2	3	0	0	0	1	1	0	2	9	0	45
430-530	0	7	8	0	5	8	0	1	0	2	1	0	0	0	1	1	1	2	7	0	44
445-545	0	6	5	0	3	7	0	0	0	2	1	0	1	0	2	0	1	3	8	0	39
500-600	0	6	3	0	4	4	0	0	0	1	2	1	1	0	2	0	1	2	5	1	33

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S MYRTLE STREET
E/W VINEYARD AVENUE
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	6	0	6	0	0	0	1	0	1	2	0	2	225	8	233	8	0	8
715-730	10	0	10	1	0	1	0	0	0	2	0	2	245	12	257	10	0	10
730-745	10	0	10	0	0	0	2	0	2	4	0	4	318	11	329	11	0	11
745-800	24	1	25	5	0	5	2	0	2	4	0	4	337	8	345	24	0	24
800-815	12	0	12	6	0	6	1	0	1	2	0	2	297	15	312	16	0	16
815-830	9	0	9	0	0	0	0	0	0	1	0	1	273	11	284	19	0	19
830-845	5	0	5	4	0	4	1	0	1	3	0	3	255	14	269	16	0	16
845-900	6	0	6	1	0	1	0	0	0	3	0	3	251	16	267	10	3	13
900-915	17	0	17	0	0	0	1	0	1	2	0	2	187	13	200	10	1	11
915-930	7	0	7	0	0	0	0	0	0	4	1	5	183	15	198	9	0	9
930-945	7	0	7	1	0	1	0	0	0	1	0	1	193	19	212	7	2	9
945-1000	8	0	8	0	0	0	1	0	1	3	2	5	217	13	230	10	0	10
HOUR TOTALS																		
700-800	50	1	51	6	0	6	5	0	5	12	0	12	1125	39	1164	53	0	53
715-815	56	1	57	12	0	12	5	0	5	12	0	12	1197	46	1243	61	0	61
730-830	55	1	56	11	0	11	5	0	5	11	0	11	1225	45	1270	70	0	70
745-845	50	1	51	15	0	15	4	0	4	10	0	10	1162	48	1210	75	0	75
800-900	32	0	32	11	0	11	2	0	2	9	0	9	1076	56	1132	61	3	64
815-915	37	0	37	5	0	5	2	0	2	9	0	9	966	54	1020	55	4	59
830-930	35	0	35	5	0	5	2	0	2	12	1	13	876	58	934	45	4	49
845-945	37	0	37	2	0	2	1	0	1	10	1	11	814	63	877	36	6	42
900-1000	39	0	39	1	0	1	2	0	2	10	3	13	780	60	840	36	3	39

PEAK HOUR
715-815

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	29	1	30	13	0	13	44	2	46	48	2	50	235	18	253	5	0	5	616	31	647
715-730	31	2	33	12	1	13	54	2	56	50	3	53	260	21	281	6	0	6	681	41	722
730-745	12	0	12	2	0	2	35	0	35	61	6	67	234	28	262	9	0	9	698	45	743
745-800	14	1	15	0	0	0	31	9	40	74	8	82	232	24	256	5	1	6	752	52	804
800-815	37	4	41	3	2	5	20	8	28	37	5	42	154	35	189	2	0	2	587	69	656
815-830	16	0	16	0	2	2	36	4	40	36	8	44	166	35	201	9	0	9	565	60	625
830-845	9	4	13	1	1	2	27	5	32	38	2	40	174	18	192	3	1	4	536	45	581
845-900	9	0	9	0	0	0	34	4	38	37	2	39	170	33	203	4	0	4	525	58	583
900-915	9	3	12	0	0	0	41	0	41	41	7	48	157	20	177	6	0	6	471	44	515
915-930	11	1	12	0	0	0	30	4	34	25	1	26	135	20	155	5	0	5	409	42	451
930-945	7	0	7	0	0	0	26	4	30	27	4	31	124	31	155	8	1	9	401	61	462
945-1000	11	1	12	2	0	2	39	6	45	29	4	33	146	27	173	6	1	7	472	54	526
HOUR TOTALS																					
700-800	86	4	90	27	1	28	164	13	177	233	19	252	961	91	1052	25	1	26	2747	169	2916
715-815	94	7	101	17	3	20	140	19	159	222	22	244	880	108	988	22	1	23	2718	207	2925
730-830	79	5	84	5	4	9	122	21	143	208	27	235	786	122	908	25	1	26	2602	226	2828
745-845	76	9	85	4	5	9	114	26	140	185	23	208	726	112	838	19	2	21	2440	226	2666
800-900	71	8	79	4	5	9	117	21	138	148	17	165	664	121	785	18	1	19	2213	232	2445
815-915	43	7	50	1	3	4	138	13	151	152	19	171	667	106	773	22	1	23	2097	207	2304
830-930	38	8	46	1	1	2	132	13	145	141	12	153	636	91	727	18	1	19	1941	189	2130
845-945	36	4	40	0	0	0	131	12	143	130	14	144	586	104	690	23	1	24	1806	205	2011
900-1000	38	5	43	2	0	2	136	14	150	122	16	138	562	98	660	25	2	27	1753	201	1954

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 3:00 PM TO 6:00 PM
INTERSECTION: N/S MYRTLE STREET
E/W VINEYARD AVENUE
CITY: OXNARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	19	1	20	3	1	4	3	1	4	7	0	7	292	14	306	10	4	14
315-330	15	0	15	2	0	2	4	0	4	4	0	4	264	12	276	7	1	8
330-345	17	0	17	4	0	4	2	0	2	7	0	7	294	6	300	12	0	12
345-400	14	0	14	2	0	2	3	0	3	2	0	2	315	9	324	16	0	16
400-415	13	0	13	1	0	1	1	0	1	4	0	4	265	10	275	6	0	6
415-430	12	0	12	0	0	0	2	0	2	5	0	5	299	18	317	5	0	5
430-445	13	0	13	1	0	1	1	0	1	4	0	4	308	9	317	3	0	3
445-500	18	0	18	4	0	4	4	0	4	6	0	6	335	9	344	9	0	9
500-515	22	0	22	2	0	2	2	0	2	8	0	8	356	6	362	9	0	9
515-530	15	0	15	2	0	2	3	0	3	8	0	8	292	4	296	16	0	16
530-545	21	0	21	2	0	2	3	0	3	1	0	1	256	1	257	6	0	6
545-600	20	0	20	4	0	4	5	0	5	4	0	4	274	3	277	8	1	9
HOUR TOTALS																		
300-400	65	1	66	11	1	12	12	1	13	20	0	20	1165	41	1206	45	5	50
315-415	59	0	59	9	0	9	10	0	10	17	0	17	1138	37	1175	41	1	42
330-430	56	0	56	7	0	7	8	0	8	18	0	18	1173	43	1216	39	0	39
345-445	52	0	52	4	0	4	7	0	7	15	0	15	1187	46	1233	30	0	30
400-500	56	0	56	6	0	6	8	0	8	19	0	19	1207	46	1253	23	0	23
415-515	65	0	65	7	0	7	9	0	9	23	0	23	1298	42	1340	26	0	26
430-530	68	0	68	9	0	9	10	0	10	26	0	26	1291	28	1319	37	0	37
445-545	76	0	76	10	0	10	12	0	12	23	0	23	1239	20	1259	40	0	40
500-600	78	0	78	10	0	10	13	0	13	21	0	21	1178	14	1192	39	1	40

PEAK HOUR
430-530

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	19	2	21	5	0	5	57	2	59	49	1	50	229	27	256	19	1	20	712	54	766
315-330	10	4	14	2	0	2	60	3	63	61	4	65	279	28	307	13	3	16	721	55	776
330-345	7	3	10	2	0	2	62	3	65	45	1	46	220	22	242	12	0	12	684	35	719
345-400	21	2	23	1	0	1	69	3	72	62	6	68	238	53	291	18	3	21	761	76	837
400-415	17	2	19	6	0	6	73	2	75	44	1	45	255	18	273	20	0	20	705	33	738
415-430	20	1	21	1	0	1	62	0	62	56	2	58	283	12	295	19	0	19	764	33	797
430-445	17	2	19	4	0	4	76	2	78	44	2	46	242	13	255	24	0	24	737	28	765
445-500	21	1	22	3	0	3	99	0	99	52	1	53	267	18	285	41	0	41	859	29	888
500-515	21	1	22	6	0	6	94	0	94	34	1	35	244	11	255	23	0	23	821	19	840
515-530	29	2	31	1	0	1	71	1	72	48	1	49	299	17	316	32	1	33	816	26	842
530-545	11	1	12	5	0	5	82	1	83	30	1	31	261	11	272	22	1	23	700	16	716
545-600	14	1	15	0	0	0	65	1	66	35	3	38	290	11	301	20	2	22	739	22	761
HOUR TOTALS																					
300-400	57	11	68	10	0	10	248	11	259	217	12	229	966	130	1096	62	7	69	2878	220	3098
315-415	55	11	66	11	0	11	264	11	275	212	12	224	992	121	1113	63	6	69	2871	199	3070
330-430	65	8	73	10	0	10	266	8	274	207	10	217	996	105	1101	69	3	72	2914	177	3091
345-445	75	7	82	12	0	12	280	7	287	206	11	217	1018	96	1114	81	3	84	2967	170	3137
400-500	75	6	81	14	0	14	310	4	314	196	6	202	1047	61	1108	104	0	104	3065	123	3188
415-515	79	5	84	14	0	14	331	2	333	186	6	192	1036	54	1090	107	0	107	3181	109	3290
430-530	88	6	94	14	0	14	340	3	343	178	5	183	1052	59	1111	120	1	121	3233	102	3335
445-545	82	5	87	15	0	15	346	2	348	164	4	168	1071	57	1128	118	2	120	3196	90	3286
500-600	75	5	80	12	0	12	312	3	315	147	6	153	1094	50	1144	97	4	101	3076	83	3159

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CITY OF OXNARD
PROJECT: OXNARD TRAFFIC COUNTS
DATE: WEDNESDAY SEPTEMBER 19, 2007
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S VENTURA BOULEVARD
E/W GONZALES ROAD
CITY: OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	14	0	14	79	1	80	13	0	13	5	0	5	60	0	60	43	0	43
715-730	21	0	21	98	1	99	14	0	14	8	0	8	85	0	85	36	0	36
730-745	37	1	38	137	3	140	16	0	16	8	0	8	127	1	128	64	0	64
745-800	29	0	29	142	3	145	17	0	17	13	1	14	120	0	120	78	4	82
800-815	13	1	14	126	2	128	25	0	25	6	0	6	70	3	73	59	2	61
815-830	12	0	12	118	0	118	15	0	15	14	0	14	88	0	88	67	0	67
830-845	11	0	11	108	1	109	21	0	21	11	0	11	78	1	79	51	1	52
845-900	10	0	10	121	1	122	19	0	19	6	0	6	50	2	52	72	0	72
900-915	7	0	7	93	2	95	8	1	9	9	0	9	61	0	61	74	0	74
915-930	6	0	6	96	3	99	13	0	13	8	0	8	76	0	76	53	1	54
930-945	7	3	10	82	0	82	16	0	16	11	0	11	68	3	71	63	1	64
945-1000	7	1	8	88	0	88	10	1	11	6	1	7	68	2	70	72	2	74
HOUR TOTALS																		
700-800	101	1	102	456	8	464	60	0	60	34	1	35	392	1	393	221	4	225
715-815	100	2	102	503	9	512	72	0	72	35	1	36	402	4	406	237	6	243
730-830	91	2	93	523	8	531	73	0	73	41	1	42	405	4	409	268	6	274
745-845	65	1	66	494	6	500	78	0	78	44	1	45	356	4	360	255	7	262
800-900	46	1	47	473	4	477	80	0	80	37	0	37	286	6	292	249	3	252
815-915	40	0	40	440	4	444	63	1	64	40	0	40	277	3	280	264	1	265
830-930	34	0	34	418	7	425	61	1	62	34	0	34	265	3	268	250	2	252
845-945	30	3	33	392	6	398	56	1	57	34	0	34	255	5	260	262	2	264
900-1000	27	4	31	359	5	364	47	2	49	34	1	35	273	5	278	262	4	266

PEAK HOUR
730-830

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
700-715	53	0	53	91	0	91	34	0	34	22	0	22	90	0	90	18	0	18	522	1	523
715-730	67	0	67	89	0	89	50	0	50	23	0	23	102	0	102	42	0	42	635	1	636
730-745	57	1	58	116	0	116	73	3	76	30	0	30	158	6	164	38	0	38	861	15	876
745-800	58	3	61	143	2	145	82	0	82	61	0	61	173	1	174	48	0	48	964	14	978
800-815	52	1	53	139	1	140	97	3	100	51	3	54	123	1	124	28	0	28	789	17	806
815-830	60	0	60	120	0	120	39	1	40	23	1	24	83	1	84	24	0	24	663	3	666
830-845	91	1	92	108	1	109	34	1	35	20	0	20	70	1	71	19	1	20	622	8	630
845-900	73	1	74	91	2	93	33	0	33	22	0	22	94	2	96	23	1	24	614	9	623
900-915	74	1	75	82	1	83	28	0	28	26	0	26	56	4	60	10	1	11	528	10	538
915-930	65	2	67	73	2	75	29	2	31	25	0	25	77	1	78	8	0	8	529	11	540
930-945	55	2	57	78	5	83	18	4	22	27	0	27	66	2	68	17	0	17	508	20	528
945-1000	67	3	70	86	3	89	20	1	21	19	1	20	65	2	67	14	1	15	522	18	540
HOUR TOTALS																					
700-800	235	4	239	439	2	441	239	3	242	136	0	136	523	7	530	146	0	146	2982	31	3013
715-815	234	5	239	487	3	490	302	6	308	165	3	168	556	8	564	156	0	156	3249	47	3296
730-830	227	5	232	518	3	521	291	7	298	165	4	169	537	9	546	138	0	138	3277	49	3326
745-845	261	5	266	510	4	514	252	5	257	155	4	159	449	4	453	119	1	120	3038	42	3080
800-900	276	3	279	458	4	462	203	5	208	116	4	120	370	5	375	94	2	96	2688	37	2725
815-915	298	3	301	401	4	405	134	2	136	91	1	92	303	8	311	76	3	79	2427	30	2457
830-930	303	5	308	354	6	360	124	3	127	93	0	93	297	8	305	60	3	63	2293	38	2331
845-945	267	6	273	324	10	334	108	6	114	100	0	100	293	9	302	58	2	60	2179	50	2229
900-1000	261	8	269	319	11	330	95	7	102	97	1	98	264	9	273	49	2	51	2087	59	2146

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT:		CITY OF OXNARD
PROJECT:		OXNARD TRAFFIC COUNTS
DATE:		WEDNESDAY SEPTEMBER 19, 2007
PERIOD:		3:00 PM TO 6:00 PM
INTERSECTION:	N/S	VENTURA BOULEVARD
	E/W	GONZALES ROAD
CITY:		OXNARD

	1			2			3			4			5			6		
	SBRT			SBTH			SBLT			WBRT			WBTH			WBLT		
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	24	0	24	188	0	188	19	1	20	16	0	16	131	1	132	93	1	94
315-330	10	2	12	178	2	180	18	0	18	23	1	24	124	0	124	104	1	105
330-345	10	0	10	156	17	173	10	1	11	24	0	24	94	2	96	108	0	108
345-400	21	0	21	176	1	177	14	1	15	27	0	27	92	1	93	106	0	106
400-415	21	0	21	214	1	215	28	0	28	21	0	21	103	0	103	136	0	136
415-430	16	0	16	185	2	187	12	0	12	18	0	18	100	1	101	109	0	109
430-445	19	0	19	219	2	221	21	0	21	19	0	19	104	1	105	130	1	131
445-500	21	0	21	208	1	209	15	0	15	26	0	26	124	0	124	122	1	123
500-515	29	0	29	235	0	235	22	0	22	21	0	21	114	0	114	143	1	144
515-530	23	0	23	260	1	261	13	0	13	34	1	35	139	1	140	156	0	156
530-545	19	0	19	241	0	241	31	0	31	34	0	34	120	2	122	145	0	145
545-600	24	0	24	215	1	216	21	0	21	25	0	25	103	2	105	120	1	121
HOUR TOTALS																		
300-400	65	2	67	698	20	718	61	3	64	90	1	91	441	4	445	411	2	413
315-415	62	2	64	724	21	745	70	2	72	95	1	96	413	3	416	454	1	455
330-430	68	0	68	731	21	752	64	2	66	90	0	90	389	4	393	459	0	459
345-445	77	0	77	794	6	800	75	1	76	85	0	85	399	3	402	481	1	482
400-500	77	0	77	826	6	832	76	0	76	84	0	84	431	2	433	497	2	499
415-515	85	0	85	847	5	852	70	0	70	84	0	84	442	2	444	504	3	507
430-530	92	0	92	922	4	926	71	0	71	100	1	101	481	2	483	551	3	554
445-545	92	0	92	944	2	946	81	0	81	115	1	116	497	3	500	566	2	568
500-600	95	0	95	951	2	953	87	0	87	114	1	115	476	5	481	564	2	566

PEAK HOUR
500-600

	7			8			9			10			11			12			ALL MOVEMENTS TOTALS		
	NBRT			NBTH			NBLT			EBRT			EBTH			EBLT					
15-MIN COU	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL	CAR	TRUCK	TOTAL
300-315	107	2	109	137	1	138	70	0	70	62	0	62	123	1	124	31	0	31	1001	7	1008
315-330	105	1	106	150	5	155	57	0	57	75	0	75	133	3	136	33	3	36	1010	18	1028
330-345	74	0	74	115	1	116	34	0	34	54	2	56	104	3	107	30	1	31	813	27	840
345-400	92	1	93	153	1	154	41	0	41	48	2	50	138	0	138	39	0	39	947	7	954
400-415	97	1	98	146	1	147	47	0	47	36	0	36	121	0	121	26	0	26	996	3	999
415-430	111	0	111	163	6	169	48	0	48	29	0	29	135	1	136	36	0	36	962	10	972
430-445	88	4	92	127	1	128	41	0	41	27	0	27	108	1	109	21	0	21	924	10	934
445-500	98	1	99	164	2	166	47	0	47	46	2	48	121	3	124	31	0	31	1023	10	1033
500-515	126	0	126	187	0	187	55	0	55	40	2	42	132	1	133	28	0	28	1132	4	1136
515-530	95	0	95	152	3	155	39	0	39	62	1	63	120	1	121	29	0	29	1122	8	1130
530-545	95	0	95	136	4	140	60	0	60	39	0	39	97	0	97	29	0	29	1046	6	1052
545-600	125	2	127	180	2	182	51	0	51	33	0	33	95	0	95	37	0	37	1029	8	1037
HOUR TOTALS																					
300-400	378	4	382	555	8	563	202	0	202	239	4	243	498	7	505	133	4	137	3771	59	3830
315-415	368	3	371	564	8	572	179	0	179	213	4	217	496	6	502	128	4	132	3766	55	3821
330-430	374	2	376	577	9	586	170	0	170	167	4	171	498	4	502	131	1	132	3718	47	3765
345-445	388	6	394	589	9	598	177	0	177	140	2	142	502	2	504	122	0	122	3829	30	3859
400-500	394	6	400	600	10	610	183	0	183	138	2	140	485	5	490	114	0	114	3905	33	3938
415-515	423	5	428	641	9	650	191	0	191	142	4	146	496	6	502	116	0	116	4041	34	4075
430-530	407	5	412	630	6	636	182	0	182	175	5	180	481	6	487	109	0	109	4201	32	4233
445-545	414	1	415	639	9	648	201	0	201	187	5	192	470	5	475	117	0	117	4323	28	4351
500-600	441	2	443	655	9	664	205	0	205	174	3	177	444	2	446	123	0	123	4329	26	4355

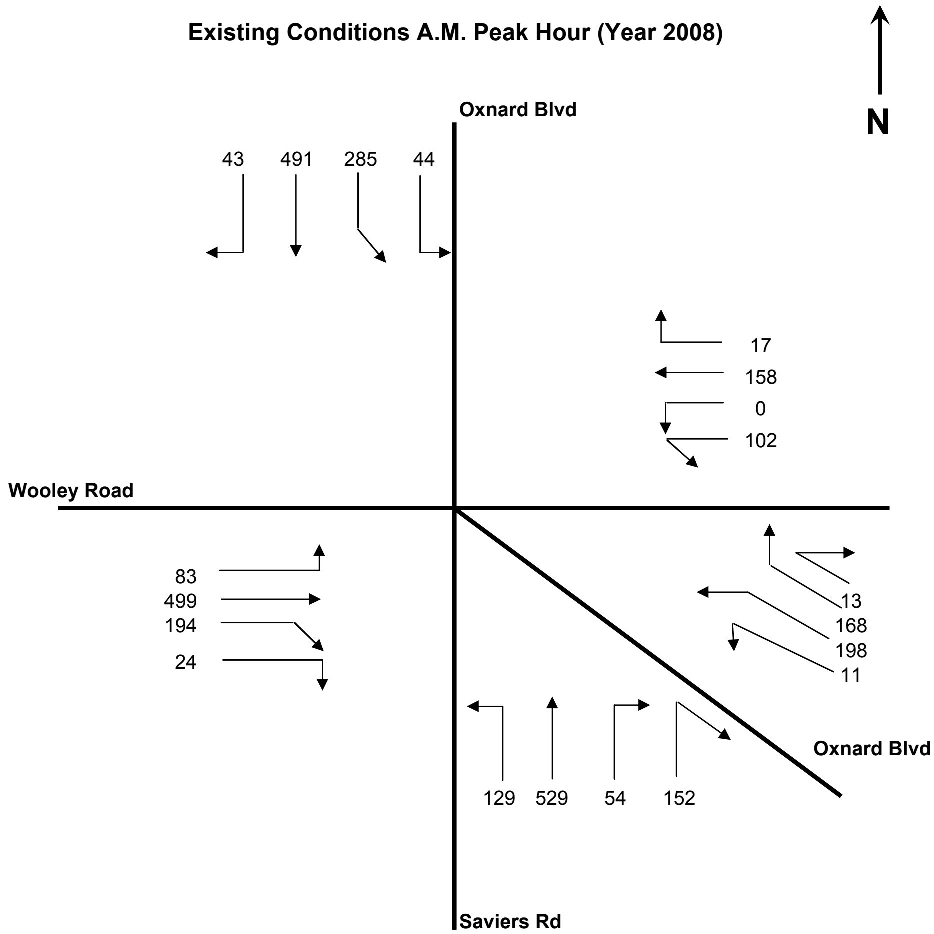
APPENDIX C

INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING CONDITIONS

Intersection 1

Existing Conditions A.M. Peak Hour (Year 2008)



1. Northbound (Saviers Rd)

$\frac{529 \quad + \quad 54}{2}$ or 129 or 152

= **292**

2. Southbound (Oxnard Blvd)

$\frac{44 \quad + \quad 285}{2}$ or $\frac{44 \quad + \quad 285 \quad + \quad 491 \quad + \quad 43}{4}$

= **216**

3. North-Westbound (Oxnard Blvd)

$\frac{11 \quad + \quad 198}{2}$ or $\frac{168 \quad + \quad 13}{2}$

= **105**

4. Eastbound (Wooley Rd)

$\frac{24 \quad + \quad 194 \quad + \quad 499}{2}$ or 83

= **359**

5. Westbound (Wooley Rd)

$\frac{158 \quad + \quad 17}{3}$ or 0 + 102

= **102**

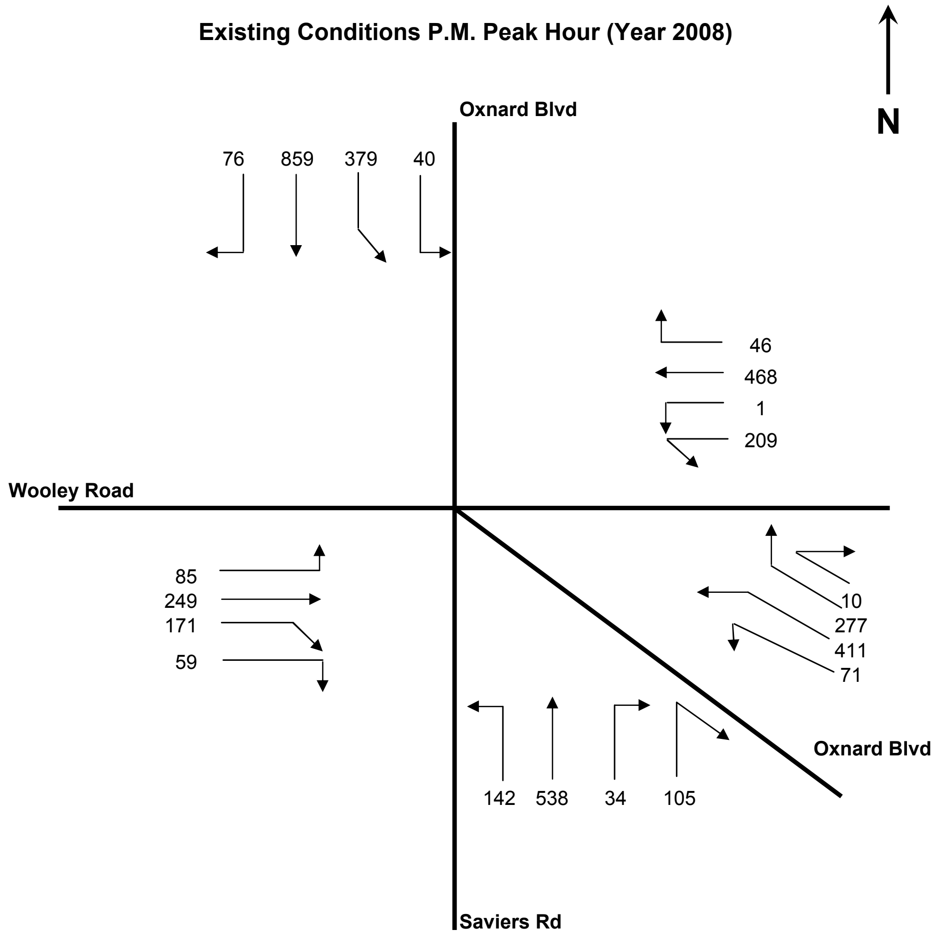
Critical Volumes = 292 + 216 + 105 + 359 + 102 = 1,074

V/C = $\frac{\mathbf{1{,}074}}{\mathbf{1{,}600}}$ = **0.671**

LOS	**B**

Intersection 1

Existing Conditions P.M. Peak Hour (Year 2008)



1. Northbound (Saviers Rd)

$\frac{538 + 34}{2}$ or 142 or 105

= 286

2. Southbound (Oxnard Blvd)

$\frac{40 + 379}{2}$ or $\frac{40 + 379 + 859 + 76}{4}$

= 339

3. North-Westbound (Oxnard Blvd)

$\frac{71 + 411}{2}$ or $\frac{277 + 10}{2}$

= 241

4. Eastbound (Wooley Rd)

$\frac{59 + 171 + 249}{2}$ or 85

= 240

5. Westbound (Wooley Rd)

$\frac{468 + 46}{3}$ or 1 + 209

= 210

Critical Volumes = 286 + 339 + 241 + 240 + 210 = 1,316

V/C = $\frac{\mathbf{1,316}}{\mathbf{1,600}}$ **= 0.823**

LOS D

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 5th St**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	41	0	0.000	N-S(1):	0.379 *
	TH	2.00	916	3,200	0.299	N-S(2):	0.314
	LT	1.00	145	1,600	0.091 *	E-W(1):	0.146 *
Westbound	RT	1.00	36	1,600	0.000	E-W(2):	0.109
	TH	1.00	139	1,600	0.087		
	LT	1.00	47	1,600	0.029 *	V/C:	0.525
Northbound	RT	0.00	62	0	0.000	Lost Time:	0.000
	TH	2.00	860	3,200	0.288 *	ITS:	0.000
	LT	1.00	24	1,600	0.015		
Eastbound	RT	0.00	7	0	0.000	ICU:	0.525
	TH	2.00	367	3,200	0.117 *		
	LT	1.00	35	1,600	0.022	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	72	0	0.000	N-S(1):	0.424
	TH	2.00	1,246	3,200	0.412 *	N-S(2):	0.451 *
	LT	1.00	113	1,600	0.071	E-W(1):	0.134
Westbound	RT	1.00	133	1,600	0.048	E-W(2):	0.239 *
	TH	1.00	336	1,600	0.210 *		
	LT	1.00	82	1,600	0.051	V/C:	0.690
Northbound	RT	0.00	70	0	0.000	Lost Time:	0.000
	TH	2.00	1,059	3,200	0.353	ITS:	0.000
	LT	1.00	63	1,600	0.039 *		
Eastbound	RT	0.00	33	0	0.000	ICU:	0.690
	TH	2.00	232	3,200	0.083		
	LT	1.00	47	1,600	0.029 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 4th St**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	44	0	0.000		N-S(1):	0.313	
	TH	2.00	1,051	3,200	0.342	*	N-S(2):	0.342	*
	LT	1.00	58	1,600	0.036		E-W(1):	0.051	*
Westbound	RT	1.00	49	1,600	0.013		E-W(2):	0.036	
	TH	1.00	34	1,600	0.021				
	LT	1.00	13	1,600	0.008	*	V/C:	0.393	
Northbound	RT	0.00	12	0	0.000		Lost Time:	0.000	
	TH	2.00	874	3,200	0.277		ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	0.00	27	0	0.000		ICU:	0.393	
	TH	1.00	42	1,600	0.043	*			
	LT	1.00	24	1,600	0.015		LOS:	A	

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	56	0	0.000		N-S(1):	0.427	*
	TH	2.00	1,301	3,200	0.424		N-S(2):	0.424	
	LT	1.00	92	1,600	0.058	*	E-W(1):	0.120	
Westbound	RT	1.00	177	1,600	0.082	*	E-W(2):	0.128	*
	TH	1.00	94	1,600	0.059				
	LT	1.00	39	1,600	0.024		V/C:	0.555	
Northbound	RT	0.00	15	0	0.000		Lost Time:	0.000	
	TH	2.00	1,167	3,200	0.369	*	ITS:	0.000	
	LT	0.00	0	0	0.000				
Eastbound	RT	0.00	62	0	0.000		ICU:	0.555	
	TH	1.00	91	1,600	0.096				
	LT	1.00	73	1,600	0.046	*	LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Gonzales Rd**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	74	1,600	0.005	N-S(1):	0.285 *
	TH	3.00	833	4,800	0.174	N-S(2):	0.203
	LT	2.00	312	3,200	0.098 *	E-W(1):	0.388 *
Westbound	RT	1.00	320	1,600	0.151	E-W(2):	0.234
	TH	3.00	670	4,800	0.140		
	LT	2.00	322	3,200	0.101 *	V/C:	0.673
Northbound	RT	1.00	379	1,600	0.187 *	Lost Time:	0.000
	TH	3.00	786	4,800	0.164	ITS:	0.000
	LT	2.00	92	3,200	0.029		
Eastbound	RT	1.00	109	1,600	0.054	ICU:	0.673
	TH	2.00	918	3,200	0.287 *		
	LT	2.00	266	3,200	0.083	LOS:	B

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	154	1,600	0.044	N-S(1):	0.309 *
	TH	3.00	1,204	4,800	0.251	N-S(2):	0.308
	LT	2.00	368	3,200	0.115 *	E-W(1):	0.483 *
Westbound	RT	1.00	421	1,600	0.206	E-W(2):	0.323
	TH	3.00	1,049	4,800	0.219		
	LT	2.00	382	3,200	0.119 *	V/C:	0.792
Northbound	RT	1.00	379	1,600	0.177	Lost Time:	0.000
	TH	3.00	933	4,800	0.194 *	ITS:	0.000
	LT	2.00	181	3,200	0.057		
Eastbound	RT	1.00	161	1,600	0.072	ICU:	0.792
	TH	2.00	1,165	3,200	0.364 *		
	LT	2.00	334	3,200	0.104	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	89	0	0.000	N-S(1):	0.208 *
	TH	3.00	541	4,800	0.131	N-S(2):	0.163
	LT	2.00	115	3,200	0.036 *	E-W(1):	0.384 *
Westbound	RT	0.00	10	0	0.000	E-W(2):	0.000
	TH	2.00	451	3,200	0.144 *		
	LT	3.00	510	4,800	0.106	V/C:	0.592
Northbound	RT	2.00	779	3,200	0.137	Lost Time:	0.000
	TH	2.00	551	3,200	0.172 *	ITS:	0.000
	LT	2.00	101	3,200	0.032		
Eastbound	RT	1.00	189	1,600	0.102	ICU:	0.592
	TH	3.00	1,153	4,800	0.240 *		
	LT	1.00	285	1,600	0.178	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	166	0	0.000	N-S(1):	0.271
	TH	3.00	832	4,800	0.208 *	N-S(2):	0.295 *
	LT	2.00	183	3,200	0.057	E-W(1):	0.467 *
Westbound	RT	0.00	15	0	0.000	E-W(2):	0.000
	TH	2.00	1,017	3,200	0.323 *		
	LT	3.00	932	4,800	0.194	V/C:	0.762
Northbound	RT	2.00	886	3,200	0.083	Lost Time:	0.000
	TH	2.00	686	3,200	0.214	ITS:	0.000
	LT	2.00	279	3,200	0.087 *		
Eastbound	RT	1.00	167	1,600	0.061	ICU:	0.762
	TH	2.91	670	4,656	0.144		
	LT	1.09	251	1,744	0.144 *	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Esplanade Dr & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	35	1,600	0.013	N-S(1):	0.044 *
	TH	0.10	4	152	0.026	N-S(2):	0.000
	LT	1.90	80	3,048	0.026 *	E-W(1):	0.455 *
Westbound	RT	1.00	43	1,600	0.000	E-W(2):	0.182
	TH	3.00	791	4,800	0.165		
	LT	2.00	305	3,200	0.095 *	V/C:	0.499
Northbound	RT	1.00	83	1,600	0.004	Lost Time:	0.000
	TH	0.21	6	331	0.018	ITS:	0.000
	LT	1.79	52	2,869	0.018 *		
Eastbound	RT	0.00	45	0	0.000	ICU:	0.499
	TH	3.00	1,684	4,800	0.360 *		
	LT	2.00	54	3,200	0.017	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	132	1,600	0.048	N-S(1):	0.271 *
	TH	0.10	12	158	0.076	N-S(2):	0.000
	LT	1.90	231	3,042	0.076 *	E-W(1):	0.340
Westbound	RT	1.00	157	1,600	0.000	E-W(2):	0.392 *
	TH	3.00	1,552	4,800	0.323 *		
	LT	2.00	123	3,200	0.038	V/C:	0.663
Northbound	RT	1.00	342	1,600	0.195 *	Lost Time:	0.000
	TH	0.41	59	649	0.091	ITS:	0.000
	LT	1.59	232	2,551	0.091		
Eastbound	RT	0.00	90	0	0.000	ICU:	0.663
	TH	3.00	1,361	4,800	0.302		
	LT	2.00	222	3,200	0.069 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 SB Ramps & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.32	205	2,112	0.097 *	N-S(1):	0.097 *
	TH	0.00	0	0	0.000	N-S(2):	0.097 *
	LT	1.68	261	2,688	0.097 *	E-W(1):	0.506 *
Westbound	RT	1.00	315	1,600	0.000	E-W(2):	0.256
	TH	3.00	1,227	4,800	0.256		
	LT	0.00	0	0	0.000 *	V/C:	0.603
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	1.00	809	1,600	0.506 *	ICU:	0.603
	TH	3.00	1,158	4,800	0.241		
	LT	0.00	0	0	0.000	LOS:	B

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.07	167	1,716	0.097 *	N-S(1):	0.097 *
	TH	0.00	0	0	0.000	N-S(2):	0.097 *
	LT	1.93	300	3,084	0.097 *	E-W(1):	0.507 *
Westbound	RT	1.00	191	1,600	0.000	E-W(2):	0.380
	TH	3.00	1,822	4,800	0.380		
	LT	0.00	0	0	0.000 *	V/C:	0.604
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	1.00	811	1,600	0.507 *	ICU:	0.604
	TH	3.00	1,230	4,800	0.256		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 NB Ramps & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR, EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.132
	TH	0.00	0	0	0.000 *	N-S(2):	0.151 *
	LT	0.00	0	0	0.000	E-W(1):	0.234
Westbound	RT	1.00	331	1,600	0.000	E-W(2):	0.328 *
	TH	2.00	1,050	3,200	0.328 *		
	LT	0.00	0	0	0.000	V/C:	0.479
Northbound	RT	1.00	211	1,600	0.132	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	484	3,200	0.151 *		
Eastbound	RT	1.00	311	1,600	0.000	ICU:	0.479
	TH	3.00	1,125	4,800	0.234		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.121
	TH	0.00	0	0	0.000 *	N-S(2):	0.231 *
	LT	0.00	0	0	0.000	E-W(1):	0.254
Westbound	RT	1.00	320	1,600	0.000	E-W(2):	0.394 *
	TH	2.00	1,260	3,200	0.394 *		
	LT	0.00	0	0	0.000	V/C:	0.625
Northbound	RT	1.00	193	1,600	0.121	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	739	3,200	0.231 *		
Eastbound	RT	1.00	373	1,600	0.000	ICU:	0.625
	TH	3.00	1,218	4,800	0.254		
	LT	0.00	0	0	0.000 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Riverpark Blvd/Ventura Blvd & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph		N-S Split Phase :	Y
Left Lane:	1600 vph		E-W Split Phase :	N
Double Lt Penalty:	0 %		Lost Time (% of cycle) :	0
ITS:	0 %		V/C Round Off (decs.) :	3
OLA Movements :				
FF Movements:				

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	57	0	0.000	N-S(1):	0.102 *
	TH	1.00	12	1,600	0.046 *	N-S(2):	0.000
	LT	0.00	5	1,600	0.003	E-W(1):	0.295
Westbound	RT	1.00	12	1,600	0.006	E-W(2):	0.402 *
	TH	2.00	1,243	3,200	0.388 *		
	LT	1.00	61	1,600	0.038	V/C:	0.504
Northbound	RT	1.00	101	1,600	0.044	Lost Time:	0.000
	TH	0.22	20	358	0.056	ITS:	0.000
	LT	1.78	159	2,842	0.056 *		
Eastbound	RT	0.00	244	0	0.000	ICU:	0.504
	TH	3.00	988	4,800	0.257		
	LT	1.00	23	1,600	0.014 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	68	0	0.000	N-S(1):	0.166 *
	TH	1.00	9	1,600	0.054 *	N-S(2):	0.000
	LT	0.00	10	1,600	0.006	E-W(1):	0.293
Westbound	RT	1.00	26	1,600	0.013	E-W(2):	0.488 *
	TH	2.00	1,319	3,200	0.412 *		
	LT	1.00	37	1,600	0.023	V/C:	0.654
Northbound	RT	1.00	94	1,600	0.047	Lost Time:	0.000
	TH	0.08	14	125	0.112	ITS:	0.000
	LT	1.92	343	3,075	0.112 *		
Eastbound	RT	0.00	183	0	0.000	ICU:	0.654
	TH	3.00	1,111	4,800	0.270		
	LT	1.00	121	1,600	0.076 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 SB Ramps**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR, NBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.155 *
	TH	2.00	138	3,200	0.043	N-S(2):	0.043
	LT	2.00	131	3,200	0.041 *	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.013 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.168
Northbound	RT	1.00	138	1,600	0.000	Lost Time:	0.000
	TH	4.00	727	6,400	0.114 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	625	1,600	0.000	ICU:	0.168
	TH	0.00	0	0	0.000		
	LT	2.00	43	3,200	0.013 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.161 *
	TH	2.00	404	3,200	0.126	N-S(2):	0.126
	LT	2.00	132	3,200	0.041 *	E-W(1):	0.000
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.018 *
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	V/C:	0.179
Northbound	RT	1.00	175	1,600	0.000	Lost Time:	0.000
	TH	4.00	771	6,400	0.120 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	1.00	1,079	1,600	0.000	ICU:	0.179
	TH	0.00	0	0	0.000		
	LT	2.00	59	3,200	0.018 *	LOS:	A

* - Denotes critical movement

Project Title: 2067 - Wagon Wheel
Intersection: Oxnard Bl & US 101 NB Ramps
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:15-8:15)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	SBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	519	1,600	0.000	N-S(1):	0.032
	TH	4.00	175	6,400	0.027 *	N-S(2):	0.243 *
	LT	0.00	0	0	0.000	E-W(1):	0.054
Westbound	RT	1.00	154	1,600	0.096 *	E-W(2):	0.096 *
	TH	0.00	0	0	0.000		
	LT	1.00	87	1,600	0.054	V/C:	0.339
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	101	3,200	0.032	ITS:	0.000
	LT	2.00	690	3,200	0.216 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.339
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: PM PEAK HOUR (4:45-5:45)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	336	1,600	0.000	N-S(1):	0.034
	TH	4.00	250	6,400	0.039 *	N-S(2):	0.265 *
	LT	0.00	0	0	0.000	E-W(1):	0.175 *
Westbound	RT	1.00	273	1,600	0.171	E-W(2):	0.171
	TH	0.00	0	0	0.000		
	LT	1.00	280	1,600	0.175 *	V/C:	0.440
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	108	3,200	0.034	ITS:	0.000
	LT	2.00	724	3,200	0.226 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.440
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Wagon Wheel Road**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.236 *
	TH	2.00	112	3,200	0.035	N-S(2):	0.035
	LT	1.00	2	1,600	0.001 *	E-W(1):	0.088 *
Westbound	RT	1.00	73	1,600	0.045	E-W(2):	0.045
	TH	0.00	0	0	0.000		
	LT	2.00	282	3,200	0.088 *	V/C:	0.324
Northbound	RT	1.00	61	1,600	0.038	Lost Time:	0.000
	TH	2.00	753	3,200	0.235 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.324
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.097
	TH	2.00	359	3,200	0.112 *	N-S(2):	0.112 *
	LT	1.00	6	1,600	0.004	E-W(1):	0.196 *
Westbound	RT	1.00	22	1,600	0.012	E-W(2):	0.012
	TH	0.00	0	0	0.000		
	LT	2.00	626	3,200	0.196 *	V/C:	0.308
Northbound	RT	1.00	65	1,600	0.041	Lost Time:	0.000
	TH	2.00	297	3,200	0.093	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.308
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.267 *
	TH	2.00	313	3,200	0.112	N-S(2):	0.131
	LT	1.00	29	1,600	0.018 *	E-W(1):	0.161 *
Westbound	RT	1.00	52	1,600	0.023	E-W(2):	0.108
	TH	2.00	159	3,200	0.050		
	LT	2.00	263	3,200	0.082 *	V/C:	0.428
Northbound	RT	1.00	464	1,600	0.249 *	Lost Time:	0.000
	TH	2.00	503	3,200	0.157	ITS:	0.000
	LT	1.00	31	1,600	0.019		
Eastbound	RT	0.00	41	0	0.000	ICU:	0.428
	TH	2.00	211	3,200	0.079 *		
	LT	1.00	92	1,600	0.058	LOS:	A

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	130	0	0.000	N-S(1):	0.218
	TH	2.00	721	3,200	0.266 *	N-S(2):	0.289 *
	LT	1.00	65	1,600	0.041	E-W(1):	0.214 *
Westbound	RT	1.00	24	1,600	0.000	E-W(2):	0.087
	TH	2.00	201	3,200	0.063		
	LT	2.00	467	3,200	0.146 *	V/C:	0.503
Northbound	RT	1.00	400	1,600	0.177	Lost Time:	0.000
	TH	2.00	282	3,200	0.088	ITS:	0.000
	LT	1.00	36	1,600	0.023 *		
Eastbound	RT	0.00	32	0	0.000	ICU:	0.503
	TH	2.00	186	3,200	0.068 *		
	LT	1.00	39	1,600	0.024	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Gonzales Rd**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	93	0	0.000	N-S(1):	0.209
	TH	3.00	531	4,800	0.130 *	N-S(2):	0.316 *
	LT	1.00	73	1,600	0.046	E-W(1):	0.257 *
Westbound	RT	0.00	42	0	0.000	E-W(2):	0.227
	TH	2.00	409	3,200	0.141		
	LT	2.00	274	3,200	0.086 *	V/C:	0.573
Northbound	RT	1.00	232	1,600	0.102	Lost Time:	0.000
	TH	2.00	521	3,200	0.163	ITS:	0.000
	LT	1.00	298	1,600	0.186 *		
Eastbound	RT	1.00	169	1,600	0.013	ICU:	0.573
	TH	2.00	546	3,200	0.171 *		
	LT	1.00	138	1,600	0.086	LOS:	A

Date/Time: **PM PEAK HOUR (5:00-6:00)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	95	0	0.000	N-S(1):	0.262
	TH	3.00	953	4,800	0.218 *	N-S(2):	0.346 *
	LT	1.00	87	1,600	0.054	E-W(1):	0.316 *
Westbound	RT	0.00	115	0	0.000	E-W(2):	0.263
	TH	2.00	481	3,200	0.186		
	LT	2.00	566	3,200	0.177 *	V/C:	0.662
Northbound	RT	1.00	443	1,600	0.188	Lost Time:	0.000
	TH	2.00	664	3,200	0.208	ITS:	0.000
	LT	1.00	205	1,600	0.128 *		
Eastbound	RT	1.00	177	1,600	0.047	ICU:	0.662
	TH	2.00	446	3,200	0.139 *		
	LT	1.00	123	1,600	0.077	LOS:	B

* - Denotes critical movement

Project Title: 2067 - Wagon Wheel
Intersection: Oxnard Bl & Spur Dr
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	25	0	0.000	N-S(1):	0.247 *
	TH	2.00	600	3,200	0.195	N-S(2):	0.199
	LT	1.00	144	1,600	0.090 *	E-W(1):	0.041 *
Westbound	RT	2.00	88	3,200	0.000	E-W(2):	0.000
	TH	0.19	6	310	0.019		
	LT	1.81	56	2,890	0.019 *	V/C:	0.288
Northbound	RT	1.00	55	1,600	0.025	Lost Time:	0.000
	TH	3.00	754	4,800	0.157 *	ITS:	0.000
	LT	1.00	7	1,600	0.004		
Eastbound	RT	1.00	12	1,600	0.000	ICU:	0.288
	TH	1.00	18	1,600	0.011		
	LT	1.00	35	1,600	0.022 *	LOS:	A

Date/Time: PM PEAK HOUR (4:45-5:45)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	56	0	0.000	N-S(1):	0.343
	TH	2.00	1,130	3,200	0.371 *	N-S(2):	0.391 *
	LT	1.00	308	1,600	0.193	E-W(1):	0.081 *
Westbound	RT	2.00	170	3,200	0.000	E-W(2):	0.000
	TH	0.22	21	359	0.058		
	LT	1.78	166	2,841	0.058 *	V/C:	0.472
Northbound	RT	1.00	155	1,600	0.068	Lost Time:	0.000
	TH	3.00	721	4,800	0.150	ITS:	0.000
	LT	1.00	32	1,600	0.020 *		
Eastbound	RT	1.00	27	1,600	0.000	ICU:	0.472
	TH	1.00	37	1,600	0.023 *		
	LT	1.00	29	1,600	0.018	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Walnut Dr & Vineyard Av**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:30-8:30)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.045
	TH	0.00	0	0	0.000 *	N-S(2):	0.065 *
	LT	0.00	0	0	0.000	E-W(1):	0.362 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.205
	TH	3.00	986	4,800	0.205		
	LT	1.00	63	1,600	0.039 *	V/C:	0.427
Northbound	RT	0.29	30	462	0.045	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.71	74	1,138	0.065 *		
Eastbound	RT	0.00	51	0	0.000	ICU:	0.427
	TH	2.00	982	3,200	0.323 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR (4:30-5:30)**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.044
	TH	0.00	0	0	0.000 *	N-S(2):	0.061 *
	LT	0.00	0	0	0.000	E-W(1):	0.326 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.254
	TH	3.00	1,217	4,800	0.254		
	LT	1.00	52	1,600	0.033 *	V/C:	0.387
Northbound	RT	0.31	30	495	0.044	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.69	67	1,105	0.061 *		
Eastbound	RT	0.00	92	0	0.000	ICU:	0.387
	TH	2.00	846	3,200	0.293 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: 2067 - Wagon Wheel
Intersection: Stroube St & Vineyard Av
Description: EXISTING CONDITIONS

Date/Time: AM PEAK HOUR (7:30-8:30)

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	19	0	0.000		N-S(1):	0.162	*
	TH	1.00	31	1,600	0.085		N-S(2):	0.149	
	LT	0.00	86	1,600	0.054	*	E-W(1):	0.336	
Westbound	RT	0.00	23	0	0.000		E-W(2):	0.350	*
	TH	2.00	1,072	3,200	0.342	*			
	LT	1.00	68	1,600	0.043		V/C:	0.512	
Northbound	RT	0.00	55	0	0.000		Lost Time:	0.000	
	TH	1.00	15	1,600	0.108	*	ITS:	0.000	
	LT	0.00	102	1,600	0.064				
Eastbound	RT	0.00	17	0	0.000		ICU:	0.512	
	TH	2.00	921	3,200	0.293				
	LT	1.00	13	1,600	0.008	*	LOS:	A	

Date/Time: PM PEAK HOUR (4:30-5:30)

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	11	0	0.000		N-S(1):	0.181	*
	TH	1.00	38	1,600	0.069		N-S(2):	0.161	
	LT	0.00	61	1,600	0.038	*	E-W(1):	0.369	
Westbound	RT	0.00	28	0	0.000		E-W(2):	0.394	*
	TH	2.00	1,163	3,200	0.372	*			
	LT	1.00	98	1,600	0.061		V/C:	0.575	
Northbound	RT	0.00	57	0	0.000		Lost Time:	0.000	
	TH	1.00	24	1,600	0.143	*	ITS:	0.000	
	LT	0.00	147	1,600	0.092				
Eastbound	RT	0.00	68	0	0.000		ICU:	0.575	
	TH	2.00	916	3,200	0.308				
	LT	1.00	35	1,600	0.022	*	LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Shopping Center Driveway**
Description: **EXISTING CONDITIONS**

Date/Time: **AM PEAK HOUR (7:15-8:15)**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.168 *
	TH	2.00	400	3,200	0.125	N-S(2):	0.125
	LT	1.00	0	1,600	0.000 *	E-W(1):	0.000
Westbound	RT	1.00	1	1,600	0.001 *	E-W(2):	0.001 *
	TH	0.00	0	0	0.000		
	LT	1.00	0	1,600	0.000	V/C:	0.169
Northbound	RT	0.00	1	0	0.000	Lost Time:	0.000
	TH	3.00	805	4,800	0.168 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.169
	TH	0.00	0	0	0.000		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR (4:45-5:45)**

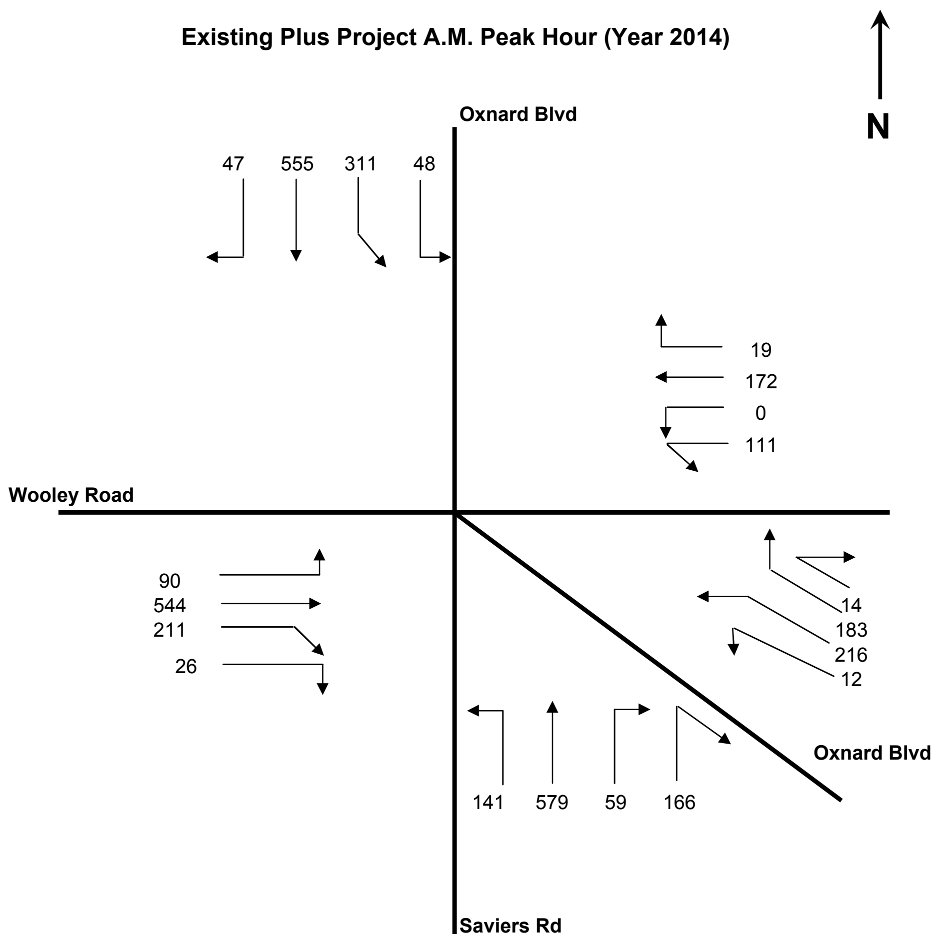
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.078
	TH	2.00	994	3,200	0.311 *	N-S(2):	0.311 *
	LT	1.00	3	1,600	0.002	E-W(1):	0.003 *
Westbound	RT	1.00	6	1,600	0.003 *	E-W(2):	0.003 *
	TH	0.00	0	0	0.000		
	LT	1.00	5	1,600	0.003 *	V/C:	0.314
Northbound	RT	0.00	6	0	0.000	Lost Time:	0.000
	TH	3.00	357	4,800	0.076	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.314
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	LOS:	A

* - Denotes critical movement

2014 EXISTING PLUS PROJECT CONDITIONS

Intersection 1

Existing Plus Project A.M. Peak Hour (Year 2014)



1. Northbound (Saviers Rd)

$\frac{579 + 59}{2}$ or 141 or 166

= 319

2. Southbound (Oxnard Blvd)

$\frac{48 + 311}{2}$ or $\frac{48 + 311 + 555 + 47}{4}$

= 240

3. North-Westbound (Oxnard Blvd)

$\frac{12 + 216}{2}$ or $\frac{183 + 14}{2}$

= 114

4. Eastbound (Wooley Rd)

$\frac{90 + 544}{2}$ or 211 + 26

= 317

5. Westbound (Wooley Rd)

$\frac{172 + 19}{3}$ or 0 + 111

= 111

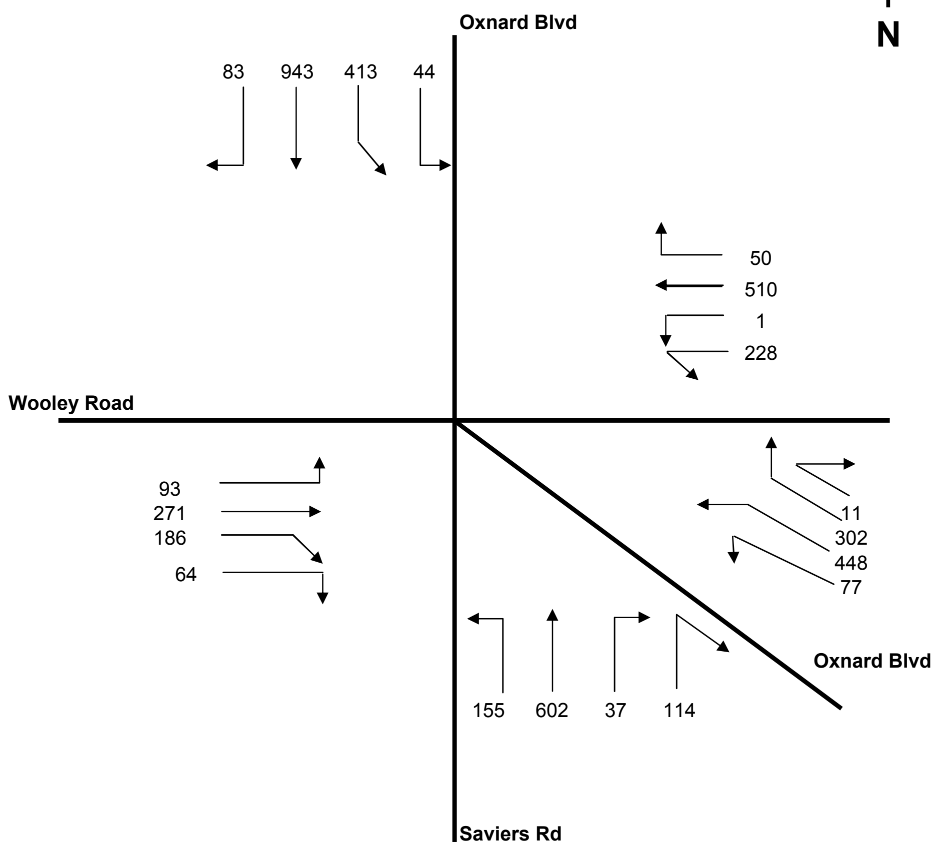
Critical Volumes = 319 + 240 + 114 + 317 + 111 = 1,101

V/C = $\frac{\mathbf{1,101}}{\mathbf{1,600}}$ **= 0.688**

$\boxed{\textbf{LOS B}}$

Intersection 1

Existing Plus Project P.M. Peak Hour (Year 2014)



1. Northbound (Saviers Rd)

$$\frac{602 + 37}{2} \quad \text{or} \quad 155 \quad \text{or} \quad 114$$

= **320**

2. Southbound (Oxnard Blvd)

$$\frac{44 + 413}{2} \quad \text{or} \quad \frac{44 + 413 + 943 + 83}{4}$$

= **371**

3. North-Westbound (Oxnard Blvd)

$$\frac{77 + 448}{2} \quad \text{or} \quad \frac{302 + 11}{2}$$

= **263**

4. Eastbound (Wooley Rd)

$$\frac{93 + 271}{2} \quad \text{or} \quad 186 + 64$$

= **250**

5. Westbound (Wooley Rd)

$$\frac{510 + 50}{3} \quad \text{or} \quad 1 + 228$$

= **229**

Critical Volumes = 320 + 371 + 263 + 250 + 229 = 1,433

V/C = $$\frac{1{,}433}{1{,}600} = 0.896$$

LOS	**D**

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 5th St**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	45	0	0.000		N-S(1):	0.414	*
	TH	2.00	1,018	3,200	0.332		N-S(2):	0.348	
	LT	1.00	158	1,600	0.099	*	E-W(1):	0.160	*
Westbound	RT	1.00	39	1,600	0.000		E-W(2):	0.119	
	TH	1.00	152	1,600	0.095				
	LT	1.00	51	1,600	0.032	*	V/C:	0.574	
Northbound	RT	0.00	68	0	0.000		Lost Time:	0.000	
	TH	2.00	939	3,200	0.315	*	ITS:	0.000	
	LT	1.00	26	1,600	0.016				
Eastbound	RT	0.00	8	0	0.000		ICU:	0.574	
	TH	2.00	400	3,200	0.128	*			
	LT	1.00	38	1,600	0.024		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	78	0	0.000		N-S(1):	0.466	
	TH	2.00	1,365	3,200	0.451	*	N-S(2):	0.494	*
	LT	1.00	123	1,600	0.077		E-W(1):	0.146	
Westbound	RT	1.00	145	1,600	0.052		E-W(2):	0.261	*
	TH	1.00	366	1,600	0.229	*			
	LT	1.00	89	1,600	0.056		V/C:	0.755	
Northbound	RT	0.00	76	0	0.000		Lost Time:	0.000	
	TH	2.00	1,170	3,200	0.389		ITS:	0.000	
	LT	1.00	69	1,600	0.043	*			
Eastbound	RT	0.00	36	0	0.000		ICU:	0.755	
	TH	2.00	253	3,200	0.090				
	LT	1.00	51	1,600	0.032	*	LOS:	C	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 4th St**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	48	0	0.000	N-S(1):	0.342
	TH	2.00	1,166	3,200	0.379 *	N-S(2):	0.379 *
	LT	1.00	63	1,600	0.039	E-W(1):	0.056 *
Westbound	RT	1.00	53	1,600	0.013	E-W(2):	0.039
	TH	1.00	37	1,600	0.023		
	LT	1.00	14	1,600	0.009 *	V/C:	0.435
Northbound	RT	0.00	13	0	0.000	Lost Time:	0.000
	TH	2.00	955	3,200	0.303	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	29	0	0.000	ICU:	0.435
	TH	1.00	46	1,600	0.047 *		
	LT	1.00	26	1,600	0.016	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	61	0	0.000	N-S(1):	0.471 *
	TH	2.00	1,425	3,200	0.464	N-S(2):	0.464
	LT	1.00	100	1,600	0.063 *	E-W(1):	0.131
Westbound	RT	1.00	193	1,600	0.089 *	E-W(2):	0.139 *
	TH	1.00	102	1,600	0.064		
	LT	1.00	43	1,600	0.027	V/C:	0.610
Northbound	RT	0.00	16	0	0.000	Lost Time:	0.000
	TH	2.00	1,288	3,200	0.408 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	68	0	0.000	ICU:	0.610
	TH	1.00	99	1,600	0.104		
	LT	1.00	80	1,600	0.050 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Gonzales Rd**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	101	1,600	0.018	N-S(1):	0.318 *
	TH	3.00	920	4,800	0.192	N-S(2):	0.224
	LT	2.00	368	3,200	0.115 *	E-W(1):	0.348 *
Westbound	RT	1.00	351	1,600	0.162	E-W(2):	0.253
	TH	3.00	731	4,800	0.152		
	LT	2.00	351	3,200	0.110 *	V/C:	0.666
Northbound	RT	1.00	413	1,600	0.203 *	Lost Time:	0.000
	TH	3.00	858	4,800	0.179	ITS:	0.000
	LT	2.00	101	3,200	0.032		
Eastbound	RT	0.00	127	0	0.000	ICU:	0.666
	TH	3.00	1,013	4,800	0.238 *		
	LT	2.00	292	3,200	0.091	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	175	1,600	0.050	N-S(1):	0.342 *
	TH	3.00	1,316	4,800	0.274	N-S(2):	0.338
	LT	2.00	410	3,200	0.128 *	E-W(1):	0.433 *
Westbound	RT	1.00	482	1,600	0.237	E-W(2):	0.359
	TH	3.00	1,153	4,800	0.240		
	LT	2.00	416	3,200	0.130 *	V/C:	0.775
Northbound	RT	1.00	413	1,600	0.193	Lost Time:	0.000
	TH	3.00	1,027	4,800	0.214 *	ITS:	0.000
	LT	2.00	204	3,200	0.064		
Eastbound	RT	0.00	178	0	0.000	ICU:	0.775
	TH	3.00	1,274	4,800	0.303 *		
	LT	2.00	380	3,200	0.119	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	101	0	0.000		N-S(1):	0.233	*
	TH	3.00	651	4,800	0.157		N-S(2):	0.191	
	LT	2.00	141	3,200	0.044	*	E-W(1):	0.420	*
Westbound	RT	0.00	12	0	0.000		E-W(2):	0.000	
	TH	2.00	492	3,200	0.158	*			
	LT	3.00	556	4,800	0.116		V/C:	0.653	
Northbound	RT	2.00	849	3,200	0.149		Lost Time:	0.000	
	TH	2.00	606	3,200	0.189	*	ITS:	0.000	
	LT	2.00	110	3,200	0.034				
Eastbound	RT	1.00	206	1,600	0.112		ICU:	0.653	
	TH	3.00	1,257	4,800	0.262	*			
	LT	1.00	311	1,600	0.194		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	182	0	0.000		N-S(1):	0.313	
	TH	3.00	927	4,800	0.231	*	N-S(2):	0.326	*
	LT	2.00	204	3,200	0.064		E-W(1):	0.513	*
Westbound	RT	0.00	29	0	0.000		E-W(2):	0.000	
	TH	2.00	1,109	3,200	0.356	*			
	LT	3.00	1,016	4,800	0.212		V/C:	0.839	
Northbound	RT	2.00	966	3,200	0.090		Lost Time:	0.000	
	TH	2.00	797	3,200	0.249		ITS:	0.000	
	LT	2.00	304	3,200	0.095	*			
Eastbound	RT	1.00	182	1,600	0.066		ICU:	0.839	
	TH	2.90	730	4,640	0.157				
	LT	1.10	277	1,760	0.157	*	LOS:	D	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Esplanade Dr & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	38	1,600	0.015		N-S(1):	0.052	*
	TH	0.08	4	124	0.032		N-S(2):	0.000	
	LT	1.92	99	3,076	0.032	*	E-W(1):	0.500	*
Westbound	RT	1.00	48	1,600	0.000		E-W(2):	0.198	
	TH	3.00	863	4,800	0.180				
	LT	2.00	332	3,200	0.104	*	V/C:	0.552	
Northbound	RT	1.00	90	1,600	0.004		Lost Time:	0.000	
	TH	0.22	7	350	0.020		ITS:	0.000	
	LT	1.78	57	2,850	0.020	*			
Eastbound	RT	0.00	49	0	0.000		ICU:	0.552	
	TH	3.00	1,852	4,800	0.396	*			
	LT	2.00	59	3,200	0.018		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	144	1,600	0.052		N-S(1):	0.296	*
	TH	0.10	13	155	0.084		N-S(2):	0.000	
	LT	1.90	256	3,045	0.084	*	E-W(1):	0.372	
Westbound	RT	1.00	181	1,600	0.000		E-W(2):	0.431	*
	TH	3.00	1,705	4,800	0.355	*			
	LT	2.00	134	3,200	0.042		V/C:	0.727	
Northbound	RT	1.00	373	1,600	0.212	*	Lost Time:	0.000	
	TH	0.40	64	646	0.099		ITS:	0.000	
	LT	1.60	253	2,554	0.099				
Eastbound	RT	0.00	98	0	0.000		ICU:	0.727	
	TH	3.00	1,488	4,800	0.330				
	LT	2.00	242	3,200	0.076	*	LOS:	C	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 SB Ramps & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.32	223	2,111	0.106 *	N-S(1):	0.106 *
	TH	0.00	0	0	0.000	N-S(2):	0.106 *
	LT	1.68	284	2,689	0.106 *	E-W(1):	0.551 *
Westbound	RT	1.00	343	1,600	0.000	E-W(2):	0.279
	TH	3.00	1,339	4,800	0.279		
	LT	0.00	0	0	0.000 *	V/C:	0.657
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	1.00	882	1,600	0.551 *	ICU:	0.657
	TH	3.00	1,290	4,800	0.269		
	LT	0.00	0	0	0.000	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.07	182	1,716	0.106 *	N-S(1):	0.106 *
	TH	0.00	0	0	0.000	N-S(2):	0.106 *
	LT	1.93	327	3,084	0.106 *	E-W(1):	0.553 *
Westbound	RT	1.00	208	1,600	0.000	E-W(2):	0.419
	TH	3.00	2,009	4,800	0.419		
	LT	0.00	0	0	0.000 *	V/C:	0.659
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	1.00	884	1,600	0.553 *	ICU:	0.659
	TH	3.00	1,350	4,800	0.281		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 NB Ramps & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR, EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.144
	TH	0.00	0	0	0.000 *	N-S(2):	0.165 *
	LT	0.00	0	0	0.000	E-W(1):	0.261
Westbound	RT	1.00	361	1,600	0.000	E-W(2):	0.358 *
	TH	2.00	1,147	3,200	0.358 *		
	LT	0.00	0	0	0.000	V/C:	0.523
Northbound	RT	1.00	230	1,600	0.144	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	528	3,200	0.165 *		
Eastbound	RT	1.00	339	1,600	0.000	ICU:	0.523
	TH	3.00	1,254	4,800	0.261		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.131
	TH	0.00	0	0	0.000 *	N-S(2):	0.252 *
	LT	0.00	0	0	0.000	E-W(1):	0.279
Westbound	RT	1.00	349	1,600	0.000	E-W(2):	0.436 *
	TH	2.00	1,396	3,200	0.436 *		
	LT	0.00	0	0	0.000	V/C:	0.688
Northbound	RT	1.00	210	1,600	0.131	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	806	3,200	0.252 *		
Eastbound	RT	1.00	407	1,600	0.000	ICU:	0.688
	TH	3.00	1,337	4,800	0.279		
	LT	0.00	0	0	0.000 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Riverpark Blvd/Ventura Blvd & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	2.00	62	3,200	0.015	*	N-S(1):	0.076	*
	TH	1.00	13	1,600	0.011		N-S(2):	0.000	
	LT	0.00	5	1,600	0.003		E-W(1):	0.327	*
Westbound	RT	0.00	13	0	0.000		E-W(2):	0.293	
	TH	3.00	1,357	4,800	0.285				
	LT	1.00	66	1,600	0.041	*	V/C:	0.403	
Northbound	RT	1.00	110	1,600	0.048		Lost Time:	0.000	
	TH	0.22	22	359	0.061		ITS:	0.000	
	LT	1.78	174	2,841	0.061	*			
Eastbound	RT	0.00	274	0	0.000		ICU:	0.403	
	TH	3.00	1,097	4,800	0.286	*			
	LT	2.00	25	3,200	0.008		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	2.00	74	3,200	0.003		N-S(1):	0.137	*
	TH	1.00	10	1,600	0.013	*	N-S(2):	0.000	
	LT	0.00	11	1,600	0.007		E-W(1):	0.321	
Westbound	RT	0.00	28	0	0.000		E-W(2):	0.350	*
	TH	3.00	1,454	4,800	0.309	*			
	LT	1.00	40	1,600	0.025		V/C:	0.487	
Northbound	RT	1.00	102	1,600	0.051		Lost Time:	0.000	
	TH	0.08	15	121	0.124		ITS:	0.000	
	LT	1.92	381	3,079	0.124	*			
Eastbound	RT	0.00	202	0	0.000		ICU:	0.487	
	TH	3.00	1,218	4,800	0.296				
	LT	2.00	132	3,200	0.041	*	LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 SB Ramps**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR, NBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.183	*
	TH	2.00	158	3,200	0.049		N-S(2):	0.049	
	LT	2.00	143	3,200	0.045	*	E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.015	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.198	
Northbound	RT	1.00	292	1,600	0.000		Lost Time:	0.000	
	TH	4.00	885	6,400	0.138	*	ITS:	0.000	
	LT	0.00	0	0	0.000				
Eastbound	RT	1.00	689	1,600	0.000		ICU:	0.198	
	TH	0.00	0	0	0.000				
	LT	2.00	47	3,200	0.015	*	LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.181	*
	TH	2.00	516	3,200	0.161		N-S(2):	0.161	
	LT	2.00	144	3,200	0.045	*	E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.020	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.201	
Northbound	RT	1.00	238	1,600	0.000		Lost Time:	0.000	
	TH	4.00	871	6,400	0.136	*	ITS:	0.000	
	LT	0.00	0	0	0.000				
Eastbound	RT	1.00	1,258	1,600	0.000		ICU:	0.201	
	TH	0.00	0	0	0.000				
	LT	2.00	64	3,200	0.020	*	LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 NB Ramps**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph		N-S Split Phase :	N
Left Lane:	1600 vph		E-W Split Phase :	N
Double Lt Penalty:	0 %		Lost Time (% of cycle) :	0
ITS:	0 %		V/C Round Off (decs.) :	3
OLA Movements :				
FF Movements:	SBR, WBR			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	566	1,600	0.000		N-S(1):	0.038	
	TH	4.00	192	6,400	0.030	*	N-S(2):	0.290	*
	LT	0.00	0	0	0.000		E-W(1):	0.064	*
Westbound	RT	2.00	168	3,200	0.000		E-W(2):	0.000	
	TH	0.00	0	0	0.000				
	LT	1.00	102	1,600	0.064	*	V/C:	0.354	
Northbound	RT	0.00	0	0	0.000		Lost Time:	0.000	
	TH	2.00	122	3,200	0.038		ITS:	0.000	
	LT	2.00	833	3,200	0.260	*			
Eastbound	RT	0.00	0	0	0.000		ICU:	0.354	
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	366	1,600	0.000		N-S(1):	0.038	
	TH	4.00	283	6,400	0.044	*	N-S(2):	0.299	*
	LT	0.00	0	0	0.000		E-W(1):	0.232	*
Westbound	RT	2.00	298	3,200	0.000		E-W(2):	0.000	
	TH	0.00	0	0	0.000				
	LT	1.00	371	1,600	0.232	*	V/C:	0.531	
Northbound	RT	0.00	0	0	0.000		Lost Time:	0.000	
	TH	2.00	122	3,200	0.038		ITS:	0.000	
	LT	2.00	816	3,200	0.255	*			
Eastbound	RT	0.00	0	0	0.000		ICU:	0.531	
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		LOS:	A	

* - Denotes critical movement

Project Title: 2067 - Wagon Wheel
Intersection: Ventura Rd & US 101 SB Off-Ramp
Description: EXISTING WITH PROJECT (2014)

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.259 *
	TH	2.00	125	3,200	0.039	N-S(2):	0.039
	LT	0.00	0	0	0.000 *	E-W(1):	0.090 *
Westbound	RT	1.00	74	1,600	0.046	E-W(2):	0.046
	TH	0.00	0	0	0.000		
	LT	2.00	287	3,200	0.090 *	V/C:	0.349
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	829	3,200	0.259 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.349
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.102
	TH	2.00	405	3,200	0.127 *	N-S(2):	0.127 *
	LT	0.00	0	0	0.000	E-W(1):	0.204 *
Westbound	RT	1.00	8	1,600	0.005	E-W(2):	0.005
	TH	0.00	0	0	0.000		
	LT	2.00	653	3,200	0.204 *	V/C:	0.331
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	327	3,200	0.102	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.331
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	57	0	0.000		N-S(1):	0.291	*
	TH	3.00	402	4,800	0.096		N-S(2):	0.117	
	LT	1.00	32	1,600	0.020	*	E-W(1):	0.176	*
Westbound	RT	1.00	57	1,600	0.026		E-W(2):	0.118	
	TH	2.00	177	3,200	0.055				
	LT	2.00	287	3,200	0.090	*	V/C:	0.467	
Northbound	RT	1.00	506	1,600	0.271	*	Lost Time:	0.000	
	TH	2.00	553	3,200	0.173		ITS:	0.000	
	LT	1.00	34	1,600	0.021				
Eastbound	RT	0.00	45	0	0.000		ICU:	0.467	
	TH	2.00	230	3,200	0.086	*			
	LT	1.00	101	1,600	0.063		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	145	0	0.000		N-S(1):	0.237	*
	TH	3.00	806	4,800	0.198		N-S(2):	0.222	
	LT	1.00	71	1,600	0.044	*	E-W(1):	0.234	*
Westbound	RT	1.00	26	1,600	0.000		E-W(2):	0.100	
	TH	2.00	220	3,200	0.069				
	LT	2.00	509	3,200	0.159	*	V/C:	0.471	
Northbound	RT	1.00	436	1,600	0.193	*	Lost Time:	0.000	
	TH	2.00	356	3,200	0.111		ITS:	0.000	
	LT	1.00	39	1,600	0.024				
Eastbound	RT	0.00	35	0	0.000		ICU:	0.471	
	TH	2.00	206	3,200	0.075	*			
	LT	1.00	50	1,600	0.031		LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Gonzales Rd**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	105	0	0.000	N-S(1):	0.246
	TH	3.00	607	4,800	0.148 *	N-S(2):	0.351 *
	LT	1.00	108	1,600	0.068	E-W(1):	0.283 *
Westbound	RT	0.00	48	0	0.000	E-W(2):	0.250
	TH	2.00	450	3,200	0.156		
	LT	2.00	311	3,200	0.097 *	V/C:	0.634
Northbound	RT	1.00	254	1,600	0.110	Lost Time:	0.000
	TH	2.00	570	3,200	0.178	ITS:	0.000
	LT	1.00	325	1,600	0.203 *		
Eastbound	RT	1.00	184	1,600	0.013	ICU:	0.634
	TH	2.00	595	3,200	0.186 *		
	LT	1.00	150	1,600	0.094	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	105	0	0.000	N-S(1):	0.298
	TH	3.00	1,048	4,800	0.240 *	N-S(2):	0.379 *
	LT	1.00	104	1,600	0.065	E-W(1):	0.347 *
Westbound	RT	0.00	148	0	0.000	E-W(2):	0.296
	TH	2.00	525	3,200	0.210		
	LT	2.00	621	3,200	0.194 *	V/C:	0.726
Northbound	RT	1.00	493	1,600	0.211	Lost Time:	0.000
	TH	2.00	747	3,200	0.233	ITS:	0.000
	LT	1.00	223	1,600	0.139 *		
Eastbound	RT	1.00	193	1,600	0.051	ICU:	0.726
	TH	2.00	489	3,200	0.153 *		
	LT	1.00	137	1,600	0.086	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Main St (Spur Dr)**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	43	0	0.000	N-S(1):	0.220 *
	TH	3.00	654	4,800	0.145	N-S(2):	0.154
	LT	2.00	157	3,200	0.049 *	E-W(1):	0.193 *
Westbound	RT	2.00	96	3,200	0.005	E-W(2):	0.000
	TH	0.23	8	371	0.022		
	LT	1.77	61	2,829	0.022 *	V/C:	0.413
Northbound	RT	1.00	60	1,600	0.027	Lost Time:	0.000
	TH	3.00	822	4,800	0.171 *	ITS:	0.000
	LT	1.00	15	1,600	0.009		
Eastbound	RT	1.00	94	1,600	0.000	ICU:	0.413
	TH	1.00	32	1,600	0.020		
	LT	1.00	273	1,600	0.171 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	219	0	0.000	N-S(1):	0.269
	TH	3.00	1,232	4,800	0.302 *	N-S(2):	0.365 *
	LT	2.00	336	3,200	0.105	E-W(1):	0.135 *
Westbound	RT	2.00	185	3,200	0.005	E-W(2):	0.000
	TH	0.31	33	493	0.067		
	LT	1.69	181	2,707	0.067 *	V/C:	0.500
Northbound	RT	1.00	169	1,600	0.072	Lost Time:	0.000
	TH	3.00	786	4,800	0.164	ITS:	0.000
	LT	1.00	101	1,600	0.063 *		
Eastbound	RT	1.00	56	1,600	0.000	ICU:	0.500
	TH	1.00	44	1,600	0.028		
	LT	1.00	109	1,600	0.068 *	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Walnut Dr & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.050
	TH	0.00	0	0	0.000 *	N-S(2):	0.071 *
	LT	0.00	0	0	0.000	E-W(1):	0.401 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.224
	TH	3.00	1,077	4,800	0.224		
	LT	1.00	69	1,600	0.043 *	V/C:	0.472
Northbound	RT	0.29	33	463	0.050	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.71	81	1,137	0.071 *		
Eastbound	RT	0.00	56	0	0.000	ICU:	0.472
	TH	2.00	1,090	3,200	0.358 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.048
	TH	0.00	0	0	0.000 *	N-S(2):	0.066 *
	LT	0.00	0	0	0.000	E-W(1):	0.358 *
Westbound	RT	0.00	0	0	0.000	E-W(2):	0.280
	TH	3.00	1,343	4,800	0.280		
	LT	1.00	57	1,600	0.036 *	V/C:	0.424
Northbound	RT	0.31	33	498	0.048	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	0.69	73	1,102	0.066 *		
Eastbound	RT	0.00	100	0	0.000	ICU:	0.424
	TH	2.00	929	3,200	0.322 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Stroube St & Vineyard Av**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	21	0	0.000	N-S(1):	0.176 *
	TH	1.00	34	1,600	0.093	N-S(2):	0.162
	LT	0.00	94	1,600	0.059 *	E-W(1):	0.372 *
Westbound	RT	0.00	25	0	0.000	E-W(2):	0.258
	TH	3.00	1,170	4,800	0.249		
	LT	1.00	74	1,600	0.046 *	V/C:	0.548
Northbound	RT	0.00	60	0	0.000	Lost Time:	0.000
	TH	1.00	16	1,600	0.117 *	ITS:	0.000
	LT	0.00	111	1,600	0.069		
Eastbound	RT	0.00	19	0	0.000	ICU:	0.548
	TH	2.00	1,024	3,200	0.326 *		
	LT	1.00	14	1,600	0.009	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	12	0	0.000	N-S(1):	0.196 *
	TH	1.00	41	1,600	0.074	N-S(2):	0.174
	LT	0.00	66	1,600	0.041 *	E-W(1):	0.404 *
Westbound	RT	0.00	31	0	0.000	E-W(2):	0.298
	TH	3.00	1,284	4,800	0.274		
	LT	1.00	107	1,600	0.067 *	V/C:	0.600
Northbound	RT	0.00	62	0	0.000	Lost Time:	0.000
	TH	1.00	26	1,600	0.155 *	ITS:	0.000
	LT	0.00	160	1,600	0.100		
Eastbound	RT	0.00	74	0	0.000	ICU:	0.600
	TH	2.00	1,005	3,200	0.337 *		
	LT	1.00	38	1,600	0.024	LOS:	A

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Main Street (Village Parkway Drive)**
Description: **EXISTING WITH PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.188 *
	TH	2.00	436	3,200	0.136	N-S(2):	0.136
	LT	1.00	6	1,600	0.004 *	E-W(1):	0.058 *
Westbound	RT	1.00	13	1,600	0.006	E-W(2):	0.006
	TH	0.00	0	0	0.000		
	LT	1.00	92	1,600	0.058 *	V/C:	0.246
Northbound	RT	0.00	73	0	0.000	Lost Time:	0.000
	TH	3.00	811	4,800	0.184 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.246
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR**

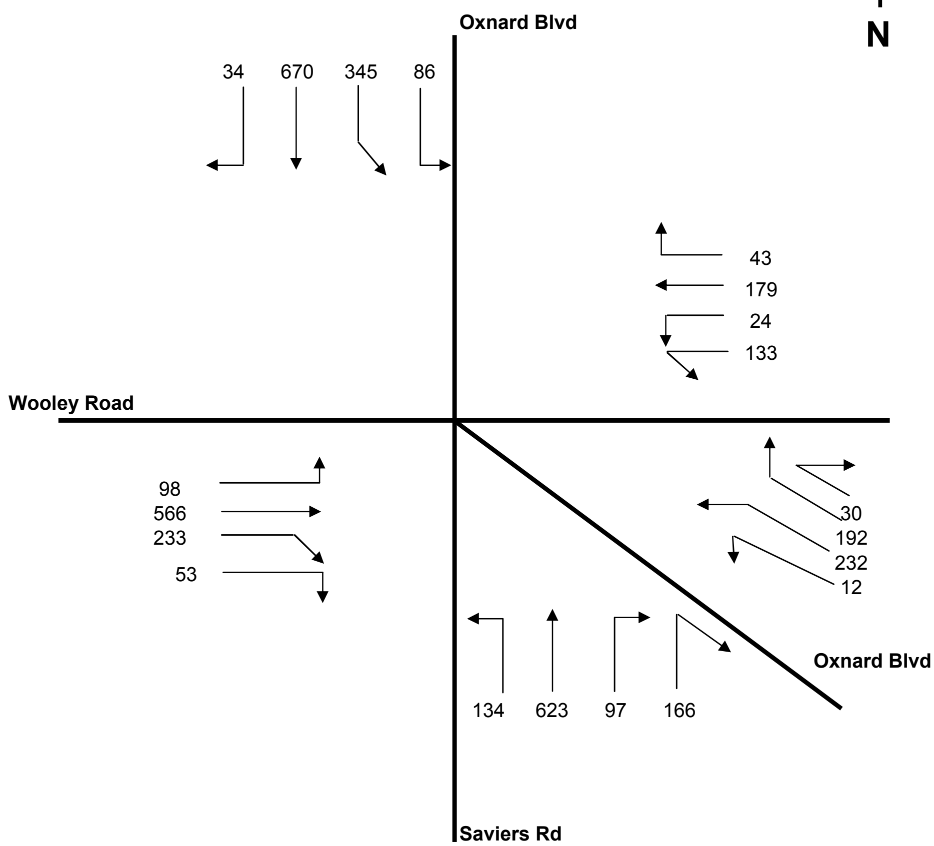
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.125
	TH	2.00	1,083	3,200	0.338 *	N-S(2):	0.338 *
	LT	1.00	49	1,600	0.031	E-W(1):	0.053 *
Westbound	RT	1.00	19	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	85	1,600	0.053 *	V/C:	0.391
Northbound	RT	0.00	134	0	0.000	Lost Time:	0.000
	TH	3.00	318	4,800	0.094	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.391
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

2014 EXISTING PLUS PENDING PROJECTS CONDITIONS

Intersection 1

Existing Plus Pending Projects A.M. Peak Hour (Year 2014)



1. Northbound (Saviers Rd)

$$\frac{623 + 97}{2} \quad \text{or} \quad 134 \quad \text{or} \quad 166$$

= 360

2. Southbound (Oxnard Blvd)

$$\frac{86 + 345}{2} \quad \text{or} \quad \frac{86 + 345 + 670 + 34}{4}$$

= 284

3. North-Westbound (Oxnard Blvd)

$$\frac{12 + 232}{2} \quad \text{or} \quad \frac{192 + 30}{2}$$

= 122

4. Eastbound (Wooley Rd)

$$\frac{98 + 566}{2} \quad \text{or} \quad 233 + 53$$

= 332

5. Westbound (Wooley Rd)

$$\frac{179 + 43}{3} \quad \text{or} \quad 24 + 133$$

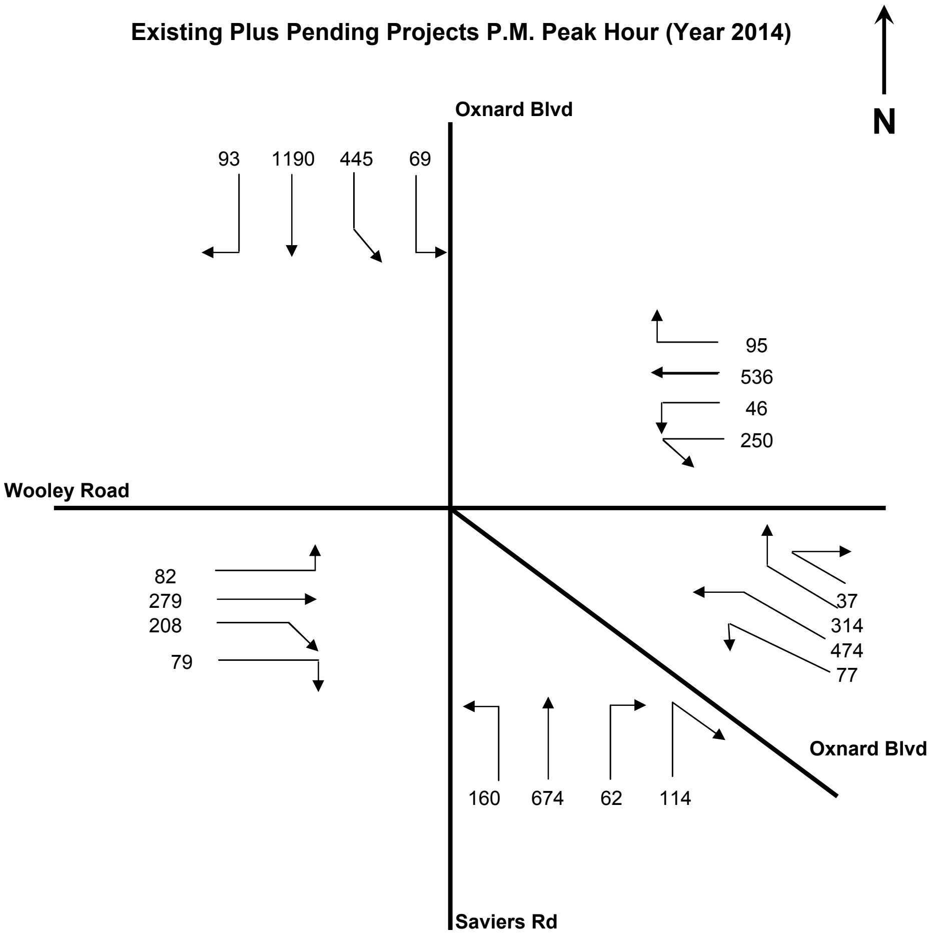
= 157

Critical Volumes = 360 + 284 + 122 + 332 + 157 = 1,255

V/C = $\frac{1,255}{1,600}$ **= 0.784** **LOS C**

Intersection 1

Existing Plus Pending Projects P.M. Peak Hour (Year 2014)



1. Northbound (Saviers Rd)

$$\frac{674 + 62}{2} \quad \text{or} \quad 160 \quad \text{or} \quad 114$$

= 368

2. Southbound (Oxnard Blvd)

$$\frac{69 + 445}{2} \quad \text{or} \quad \frac{69 + 445 + 1190 + 93}{4}$$

= 449

3. North-Westbound (Oxnard Blvd)

$$\frac{77 + 474}{2} \quad \text{or} \quad \frac{314 + 37}{2}$$

= 276

4. Eastbound (Wooley Rd)

$$\frac{82 + 279}{2} \quad \text{or} \quad 208 + 79$$

= 287

5. Westbound (Wooley Rd)

$$\frac{536 + 95}{3} \quad \text{or} \quad 46 + 250$$

= 296

Critical Volumes = 368 + 449 + 276 + 287 + 296 = 1,676

V/C = $\frac{\mathbf{1,676}}{\mathbf{1,600}}$ **= 1.048**

LOS	**F**

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 5th St**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.433 *
	TH	2.00	1,142	3,200	0.371	N-S(2):	0.402
	LT	1.00	158	1,600	0.099 *	E-W(1):	0.225 *
Westbound	RT	1.00	39	1,600	0.000	E-W(2):	0.153
	TH	1.00	207	1,600	0.129		
	LT	1.00	76	1,600	0.048 *	V/C:	0.658
Northbound	RT	0.00	100	0	0.000	Lost Time:	0.000
	TH	2.00	968	3,200	0.334 *	ITS:	0.000
	LT	1.00	50	1,600	0.031		
Eastbound	RT	0.00	55	0	0.000	ICU:	0.658
	TH	2.00	510	3,200	0.177 *		
	LT	1.00	38	1,600	0.024	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	78	0	0.000	N-S(1):	0.482
	TH	2.00	1,611	3,200	0.528 *	N-S(2):	0.614 *
	LT	1.00	123	1,600	0.077	E-W(1):	0.225
Westbound	RT	1.00	145	1,600	0.052	E-W(2):	0.360 *
	TH	1.00	524	1,600	0.328 *		
	LT	1.00	124	1,600	0.078	V/C:	0.974
Northbound	RT	0.00	111	0	0.000	Lost Time:	0.000
	TH	2.00	1,186	3,200	0.405	ITS:	0.000
	LT	1.00	137	1,600	0.086 *		
Eastbound	RT	0.00	91	0	0.000	ICU:	0.974
	TH	2.00	380	3,200	0.147		
	LT	1.00	51	1,600	0.032 *	LOS:	E

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 4th St**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	72	0	0.000	N-S(1):	0.351
	TH	2.00	1,290	3,200	0.426 *	N-S(2):	0.426 *
	LT	1.00	63	1,600	0.039	E-W(1):	0.056
Westbound	RT	1.00	53	1,600	0.013	E-W(2):	0.062 *
	TH	1.00	37	1,600	0.023 *		
	LT	1.00	14	1,600	0.009	V/C:	0.488
Northbound	RT	0.00	13	0	0.000	Lost Time:	0.000
	TH	2.00	984	3,200	0.312	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	29	0	0.000	ICU:	0.488
	TH	1.00	46	1,600	0.047		
	LT	1.00	63	1,600	0.039 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	111	0	0.000	N-S(1):	0.476
	TH	2.00	1,671	3,200	0.557 *	N-S(2):	0.557 *
	LT	1.00	100	1,600	0.063	E-W(1):	0.131
Westbound	RT	1.00	193	1,600	0.089 *	E-W(2):	0.162 *
	TH	1.00	102	1,600	0.064		
	LT	1.00	43	1,600	0.027	V/C:	0.719
Northbound	RT	0.00	16	0	0.000	Lost Time:	0.000
	TH	2.00	1,304	3,200	0.413	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	68	0	0.000	ICU:	0.719
	TH	1.00	99	1,600	0.104		
	LT	1.00	116	1,600	0.073 *	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Gonzales Rd**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	81	1,600	0.004	N-S(1):	0.348 *
	TH	3.00	1,068	4,800	0.223	N-S(2):	0.257
	LT	2.00	417	3,200	0.130 *	E-W(1):	0.370 *
Westbound	RT	1.00	379	1,600	0.172	E-W(2):	0.290
	TH	3.00	940	4,800	0.196		
	LT	2.00	405	3,200	0.127 *	V/C:	0.718
Northbound	RT	1.00	450	1,600	0.218 *	Lost Time:	0.000
	TH	3.00	1,043	4,800	0.217	ITS:	0.000
	LT	2.00	108	3,200	0.034		
Eastbound	RT	0.00	130	0	0.000	ICU:	0.718
	TH	3.00	1,038	4,800	0.243 *		
	LT	2.00	300	3,200	0.094	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	188	1,600	0.054	N-S(1):	0.404
	TH	3.00	1,569	4,800	0.327 *	N-S(2):	0.411 *
	LT	2.00	446	3,200	0.139	E-W(1):	0.498 *
Westbound	RT	1.00	532	1,600	0.263	E-W(2):	0.403
	TH	3.00	1,330	4,800	0.277		
	LT	2.00	466	3,200	0.146 *	V/C:	0.909
Northbound	RT	1.00	449	1,600	0.208	Lost Time:	0.000
	TH	3.00	1,271	4,800	0.265	ITS:	0.000
	LT	2.00	270	3,200	0.084 *		
Eastbound	RT	0.00	186	0	0.000	ICU:	0.909
	TH	3.00	1,504	4,800	0.352 *		
	LT	2.00	404	3,200	0.126	LOS:	E

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	117	0	0.000		N-S(1):	0.250	*
	TH	3.00	748	4,800	0.180		N-S(2):	0.215	
	LT	2.00	135	3,200	0.042	*	E-W(1):	0.434	*
Westbound	RT	0.00	11	0	0.000		E-W(2):	0.000	
	TH	2.00	501	3,200	0.160	*			
	LT	3.00	611	4,800	0.127		V/C:	0.684	
Northbound	RT	2.00	1,030	3,200	0.195		Lost Time:	0.000	
	TH	2.00	665	3,200	0.208	*	ITS:	0.000	
	LT	2.00	111	3,200	0.035				
Eastbound	RT	1.00	210	1,600	0.114		ICU:	0.684	
	TH	3.00	1,314	4,800	0.274	*			
	LT	1.00	321	1,600	0.201		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	181	0	0.000		N-S(1):	0.364	
	TH	3.00	1,109	4,800	0.269	*	N-S(2):	0.366	*
	LT	2.00	199	3,200	0.062		E-W(1):	0.533	*
Westbound	RT	0.00	16	0	0.000		E-W(2):	0.000	
	TH	2.00	1,146	3,200	0.363	*			
	LT	3.00	1,333	4,800	0.278		V/C:	0.899	
Northbound	RT	2.00	1,101	3,200	0.066		Lost Time:	0.000	
	TH	2.00	965	3,200	0.302		ITS:	0.000	
	LT	2.00	309	3,200	0.097	*			
Eastbound	RT	1.00	185	1,600	0.067		ICU:	0.899	
	TH	2.99	813	4,787	0.170				
	LT	1.01	274	1,613	0.170	*	LOS:	D	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Esplanade Dr & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	38	1,600	0.015		N-S(1):	0.048	*
	TH	0.09	4	141	0.028		N-S(2):	0.000	
	LT	1.91	87	3,059	0.028	*	E-W(1):	0.563	*
Westbound	RT	1.00	47	1,600	0.000		E-W(2):	0.211	
	TH	3.00	926	4,800	0.193				
	LT	2.00	382	3,200	0.119	*	V/C:	0.611	
Northbound	RT	1.00	100	1,600	0.003		Lost Time:	0.000	
	TH	0.22	7	350	0.020		ITS:	0.000	
	LT	1.78	57	2,850	0.020	*			
Eastbound	RT	0.00	49	0	0.000		ICU:	0.611	
	TH	3.00	2,084	4,800	0.444	*			
	LT	2.00	59	3,200	0.018		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	204	1,600	0.082		N-S(1):	0.295	*
	TH	0.09	13	146	0.089		N-S(2):	0.000	
	LT	1.91	272	3,054	0.089	*	E-W(1):	0.424	
Westbound	RT	1.00	171	1,600	0.000		E-W(2):	0.555	*
	TH	3.00	2,226	4,800	0.464	*			
	LT	2.00	174	3,200	0.054		V/C:	0.850	
Northbound	RT	1.00	373	1,600	0.206	*	Lost Time:	0.000	
	TH	0.58	104	932	0.112		ITS:	0.000	
	LT	1.42	253	2,268	0.112				
Eastbound	RT	0.00	108	0	0.000		ICU:	0.850	
	TH	3.00	1,670	4,800	0.370				
	LT	2.00	292	3,200	0.091	*	LOS:	D	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 SB Ramps & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.51	287	2,413	0.119 *	N-S(1):	0.119 *
	TH	0.00	0	0	0.000	N-S(2):	0.119 *
	LT	1.49	284	2,387	0.119 *	E-W(1):	0.570 *
Westbound	RT	1.00	403	1,600	0.000	E-W(2):	0.297
	TH	3.00	1,427	4,800	0.297		
	LT	0.00	0	0	0.000 *	V/C:	0.689
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	1.00	912	1,600	0.570 *	ICU:	0.689
	TH	3.00	1,510	4,800	0.315		
	LT	0.00	0	0	0.000	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.37	276	2,197	0.126 *	N-S(1):	0.126 *
	TH	0.00	0	0	0.000	N-S(2):	0.126 *
	LT	1.63	327	2,603	0.126 *	E-W(1):	0.593 *
Westbound	RT	1.00	338	1,600	0.000	E-W(2):	0.447
	TH	3.00	2,146	4,800	0.447		
	LT	0.00	0	0	0.000 *	V/C:	0.719
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	0.00	0	0	0.000 *	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	1.00	949	1,600	0.593 *	ICU:	0.719
	TH	3.00	1,473	4,800	0.307		
	LT	0.00	0	0	0.000	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 NB Ramps & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR, EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.213 *
	TH	0.00	0	0	0.000	N-S(2):	0.177
	LT	0.00	0	0	0.000 *	E-W(1):	0.257
Westbound	RT	1.00	401	1,600	0.000	E-W(2):	0.365 *
	TH	2.00	1,167	3,200	0.365 *		
	LT	0.00	0	0	0.000	V/C:	0.578
Northbound	RT	1.00	340	1,600	0.213 *	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	566	3,200	0.177		
Eastbound	RT	1.00	478	1,600	0.000	ICU:	0.578
	TH	3.00	1,235	4,800	0.257		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.250
	TH	0.00	0	0	0.000 *	N-S(2):	0.265 *
	LT	0.00	0	0	0.000	E-W(1):	0.278
Westbound	RT	1.00	549	1,600	0.000	E-W(2):	0.557 *
	TH	2.00	1,782	3,200	0.557 *		
	LT	0.00	0	0	0.000	V/C:	0.822
Northbound	RT	1.00	400	1,600	0.250	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	847	3,200	0.265 *		
Eastbound	RT	1.00	734	1,600	0.000	ICU:	0.822
	TH	3.00	1,333	4,800	0.278		
	LT	0.00	0	0	0.000 *	LOS:	D

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Riverpark Blvd/Ventura Blvd & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	132	3,200	0.020	N-S(1):	0.119 *
	TH	1.00	43	1,600	0.036 *	N-S(2):	0.000
	LT	0.00	15	1,600	0.009	E-W(1):	0.333 *
Westbound	RT	0.00	13	0	0.000	E-W(2):	0.327
	TH	3.00	1,357	4,800	0.285		
	LT	1.00	72	1,600	0.045 *	V/C:	0.452
Northbound	RT	1.00	133	1,600	0.061	Lost Time:	0.000
	TH	0.39	52	628	0.083	ITS:	0.000
	LT	1.61	213	2,572	0.083 *		
Eastbound	RT	0.00	296	0	0.000	ICU:	0.452
	TH	3.00	1,086	4,800	0.288 *		
	LT	2.00	135	3,200	0.042	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	354	3,200	0.046 *	N-S(1):	0.193 *
	TH	1.00	30	1,600	0.026	N-S(2):	0.000
	LT	0.00	11	1,600	0.007	E-W(1):	0.353
Westbound	RT	0.00	38	0	0.000	E-W(2):	0.488 *
	TH	3.00	1,687	4,800	0.359 *		
	LT	1.00	63	1,600	0.039	V/C:	0.681
Northbound	RT	1.00	116	1,600	0.053	Lost Time:	0.000
	TH	0.41	95	648	0.147	ITS:	0.000
	LT	1.59	374	2,552	0.147 *		
Eastbound	RT	0.00	289	0	0.000	ICU:	0.681
	TH	3.00	1,216	4,800	0.314		
	LT	2.00	412	3,200	0.129 *	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 SB Ramps**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR, NBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.177	
	TH	2.00	590	3,200	0.184	*	N-S(2):	0.184	*
	LT	2.00	143	3,200	0.045		E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.212	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.396	
Northbound	RT	1.00	150	1,600	0.000		Lost Time:	0.000	
	TH	4.00	842	6,400	0.132		ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	1.00	681	1,600	0.000		ICU:	0.396	
	TH	0.00	0	0	0.000				
	LT	2.00	677	3,200	0.212	*	LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.179	
	TH	2.00	1,170	3,200	0.366	*	N-S(2):	0.366	*
	LT	2.00	144	3,200	0.045		E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.336	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.702	
Northbound	RT	1.00	191	1,600	0.000		Lost Time:	0.000	
	TH	4.00	860	6,400	0.134		ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	1.00	1,176	1,600	0.000		ICU:	0.702	
	TH	0.00	0	0	0.000				
	LT	2.00	1,074	3,200	0.336	*	LOS:	C	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 NB Ramps**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	SBR, WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	796	1,600	0.000	N-S(1):	0.322
	TH	4.00	381	6,400	0.060 *	N-S(2):	0.501 *
	LT	0.00	0	0	0.000	E-W(1):	0.084 *
Westbound	RT	1.00	428	1,600	0.000	E-W(2):	0.084 *
	TH	1.00	0	1,600	0.084 *		
	LT	0.00	135	1,600	0.084 *	V/C:	0.585
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	1,030	3,200	0.322	ITS:	0.000
	LT	2.00	1,412	3,200	0.441 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.585
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	846	1,600	0.000	N-S(1):	0.534 *
	TH	4.00	993	6,400	0.155	N-S(2):	0.402
	LT	0.00	0	0	0.000 *	E-W(1):	0.191 *
Westbound	RT	1.00	608	1,600	0.000	E-W(2):	0.191 *
	TH	1.00	0	1,600	0.191 *		
	LT	0.00	305	1,600	0.191 *	V/C:	0.725
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	1,708	3,200	0.534 *	ITS:	0.000
	LT	2.00	789	3,200	0.247		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.725
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & US 101 SB Off-Ramp**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph		N-S Split Phase :	N
Left Lane:	1600 vph		E-W Split Phase :	N
Double Lt Penalty:	0 %		Lost Time (% of cycle) :	0
ITS:	0 %		V/C Round Off (decs.) :	3
OLA Movements :				
FF Movements:				

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.360 *
	TH	2.00	364	3,200	0.114	N-S(2):	0.114
	LT	0.00	0	0	0.000 *	E-W(1):	0.091 *
Westbound	RT	1.00	124	1,600	0.078	E-W(2):	0.078
	TH	0.00	0	0	0.000		
	LT	2.00	290	3,200	0.091 *	V/C:	0.451
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	2.00	1,151	3,200	0.360 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.451
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.261
	TH	2.00	1,358	3,200	0.424 *	N-S(2):	0.424 *
	LT	0.00		0	0.000	E-W(1):	0.201 *
Westbound	RT	1.00	178	1,600	0.111	E-W(2):	0.111
	TH	0.00	0	0	0.000		
	LT	2.00	643	3,200	0.201 *	V/C:	0.625
Northbound	RT	0.00		0	0.000	Lost Time:	0.000
	TH	2.00	834	3,200	0.261	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.625
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	65	0	0.000		N-S(1):	0.291	*
	TH	3.00	501	4,800	0.118		N-S(2):	0.144	
	LT	1.00	32	1,600	0.020	*	E-W(1):	0.203	*
Westbound	RT	1.00	57	1,600	0.026		E-W(2):	0.126	
	TH	2.00	183	3,200	0.057				
	LT	2.00	287	3,200	0.090	*	V/C:	0.494	
Northbound	RT	1.00	506	1,600	0.271	*	Lost Time:	0.000	
	TH	2.00	818	3,200	0.256		ITS:	0.000	
	LT	1.00	41	1,600	0.026				
Eastbound	RT	0.00	71	0	0.000		ICU:	0.494	
	TH	2.00	292	3,200	0.113	*			
	LT	1.00	110	1,600	0.069		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	195	0	0.000		N-S(1):	0.340	*
	TH	3.00	1,186	4,800	0.288		N-S(2):	0.336	
	LT	1.00	211	1,600	0.132	*	E-W(1):	0.268	*
Westbound	RT	1.00	46	1,600	0.000		E-W(2):	0.158	
	TH	2.00	340	3,200	0.106				
	LT	2.00	549	3,200	0.172	*	V/C:	0.608	
Northbound	RT	1.00	436	1,600	0.187		Lost Time:	0.000	
	TH	2.00	667	3,200	0.208	*	ITS:	0.000	
	LT	1.00	77	1,600	0.048				
Eastbound	RT	0.00	60	0	0.000		ICU:	0.608	
	TH	2.00	248	3,200	0.096	*			
	LT	1.00	83	1,600	0.052		LOS:	B	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Gonzales Rd**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	201	0	0.000	N-S(1):	0.284
	TH	3.00	718	4,800	0.191 *	N-S(2):	0.394 *
	LT	1.00	108	1,600	0.068	E-W(1):	0.279
Westbound	RT	0.00	81	0	0.000	E-W(2):	0.308 *
	TH	2.00	486	3,200	0.177 *		
	LT	2.00	299	3,200	0.093	V/C:	0.702
Northbound	RT	1.00	253	1,600	0.111	Lost Time:	0.000
	TH	2.00	690	3,200	0.216	ITS:	0.000
	LT	1.00	325	1,600	0.203 *		
Eastbound	RT	1.00	184	1,600	0.013	ICU:	0.702
	TH	2.00	595	3,200	0.186		
	LT	1.00	210	1,600	0.131 *	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	134	0	0.000	N-S(1):	0.336
	TH	3.00	1,204	4,800	0.279 *	N-S(2):	0.418 *
	LT	1.00	145	1,600	0.091	E-W(1):	0.401
Westbound	RT	0.00	203	0	0.000	E-W(2):	0.446 *
	TH	2.00	734	3,200	0.293 *		
	LT	2.00	627	3,200	0.196	V/C:	0.864
Northbound	RT	1.00	493	1,600	0.210	Lost Time:	0.000
	TH	2.00	783	3,200	0.245	ITS:	0.000
	LT	1.00	223	1,600	0.139 *		
Eastbound	RT	1.00	193	1,600	0.051	ICU:	0.864
	TH	2.00	656	3,200	0.205		
	LT	1.00	244	1,600	0.153 *	LOS:	D

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Main St (Spur Dr)**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	277	0	0.000	N-S(1):	0.286
	TH	2.00	794	3,200	0.335 *	N-S(2):	0.359 *
	LT	1.00	157	1,600	0.098	E-W(1):	0.063 *
Westbound	RT	2.00	106	3,200	0.000	E-W(2):	0.000
	TH	0.11	7	178	0.039		
	LT	1.89	119	3,022	0.039 *	V/C:	0.422
Northbound	RT	1.00	94	1,600	0.039	Lost Time:	0.000
	TH	3.00	902	4,800	0.188	ITS:	0.000
	LT	1.00	38	1,600	0.024 *		
Eastbound	RT	1.00	13	1,600	0.000	ICU:	0.422
	TH	1.00	20	1,600	0.013		
	LT	1.00	38	1,600	0.024 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	511	0	0.000	N-S(1):	0.424
	TH	2.00	1,282	3,200	0.560 *	N-S(2):	0.607 *
	LT	1.00	386	1,600	0.241	E-W(1):	0.141 *
Westbound	RT	2.00	195	3,200	0.000	E-W(2):	0.000
	TH	0.17	23	277	0.083		
	LT	1.83	243	2,923	0.083 *	V/C:	0.748
Northbound	RT	1.00	246	1,600	0.112	Lost Time:	0.000
	TH	3.00	876	4,800	0.183	ITS:	0.000
	LT	1.00	75	1,600	0.047 *		
Eastbound	RT	1.00	69	1,600	0.000	ICU:	0.748
	TH	1.00	40	1,600	0.025		
	LT	1.00	92	1,600	0.058 *	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Walnut Dr & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.050	
	TH	0.00	0	0	0.000	*	N-S(2):	0.073	*
	LT	0.00	0	0	0.000		E-W(1):	0.413	*
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.226	
	TH	3.00	1,085	4,800	0.226				
	LT	1.00	71	1,600	0.044	*	V/C:	0.486	
Northbound	RT	0.30	35	483	0.050		Lost Time:	0.000	
	TH	0.00	0	0	0.000		ITS:	0.000	
	LT	0.70	81	1,117	0.073	*			
Eastbound	RT	0.00	56	0	0.000		ICU:	0.486	
	TH	2.00	1,124	3,200	0.369	*			
	LT	0.00	0	0	0.000		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.049	
	TH	0.00	0	0	0.000	*	N-S(2):	0.068	*
	LT	0.00	0	0	0.000		E-W(1):	0.364	*
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.284	
	TH	3.00	1,362	4,800	0.284				
	LT	1.00	60	1,600	0.038	*	V/C:	0.432	
Northbound	RT	0.33	36	528	0.049		Lost Time:	0.000	
	TH	0.00	0	0	0.000		ITS:	0.000	
	LT	0.67	73	1,072	0.068	*			
Eastbound	RT	0.00	100	0	0.000		ICU:	0.432	
	TH	2.00	944	3,200	0.326	*			
	LT	0.00	0	0	0.000		LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Stroube St & Vineyard Av**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	21	0	0.000		N-S(1):	0.221	*
	TH	1.00	34	1,600	0.094		N-S(2):	0.163	
	LT	0.00	96	1,600	0.060	*	E-W(1):	0.383	*
Westbound	RT	0.00	37	0	0.000		E-W(2):	0.262	
	TH	3.00	1,176	4,800	0.253				
	LT	1.00	84	1,600	0.053	*	V/C:	0.604	
Northbound	RT	0.00	120	0	0.000		Lost Time:	0.000	
	TH	1.00	26	1,600	0.161	*	ITS:	0.000	
	LT	0.00	111	1,600	0.069				
Eastbound	RT	0.00	19	0	0.000		ICU:	0.604	
	TH	2.00	1,036	3,200	0.330	*			
	LT	1.00	14	1,600	0.009		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	12	0	0.000		N-S(1):	0.261	*
	TH	1.00	41	1,600	0.076		N-S(2):	0.176	
	LT	0.00	69	1,600	0.043	*	E-W(1):	0.439	*
Westbound	RT	0.00	34	0	0.000		E-W(2):	0.329	
	TH	3.00	1,430	4,800	0.305				
	LT	1.00	157	1,600	0.098	*	V/C:	0.700	
Northbound	RT	0.00	162	0	0.000		Lost Time:	0.000	
	TH	1.00	26	1,600	0.218	*	ITS:	0.000	
	LT	0.00	160	1,600	0.100				
Eastbound	RT	0.00	74	0	0.000		ICU:	0.700	
	TH	2.00	1,017	3,200	0.341	*			
	LT	1.00	38	1,600	0.024		LOS:	B	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Main Street (Village Parkway Drive)**
Description: **EXISTING PLUS PENDING PROJECTS (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.197 *
	TH	2.00	442	3,200	0.138	N-S(2):	0.138
	LT	1.00	22	1,600	0.014 *	E-W(1):	0.014 *
Westbound	RT	1.00	6	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	23	1,600	0.014 *	V/C:	0.211
Northbound	RT	0.00	67	0	0.000	Lost Time:	0.000
	TH	3.00	811	4,800	0.183 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.211
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.096
	TH	2.00	1,106	3,200	0.346 *	N-S(2):	0.346 *
	LT	1.00	20	1,600	0.013	E-W(1):	0.039 *
Westbound	RT	1.00	16	1,600	0.004	E-W(2):	0.004
	TH	0.00	0	0	0.000		
	LT	1.00	62	1,600	0.039 *	V/C:	0.385
Northbound	RT	0.00	78	0	0.000	Lost Time:	0.000
	TH	3.00	318	4,800	0.083	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.385
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

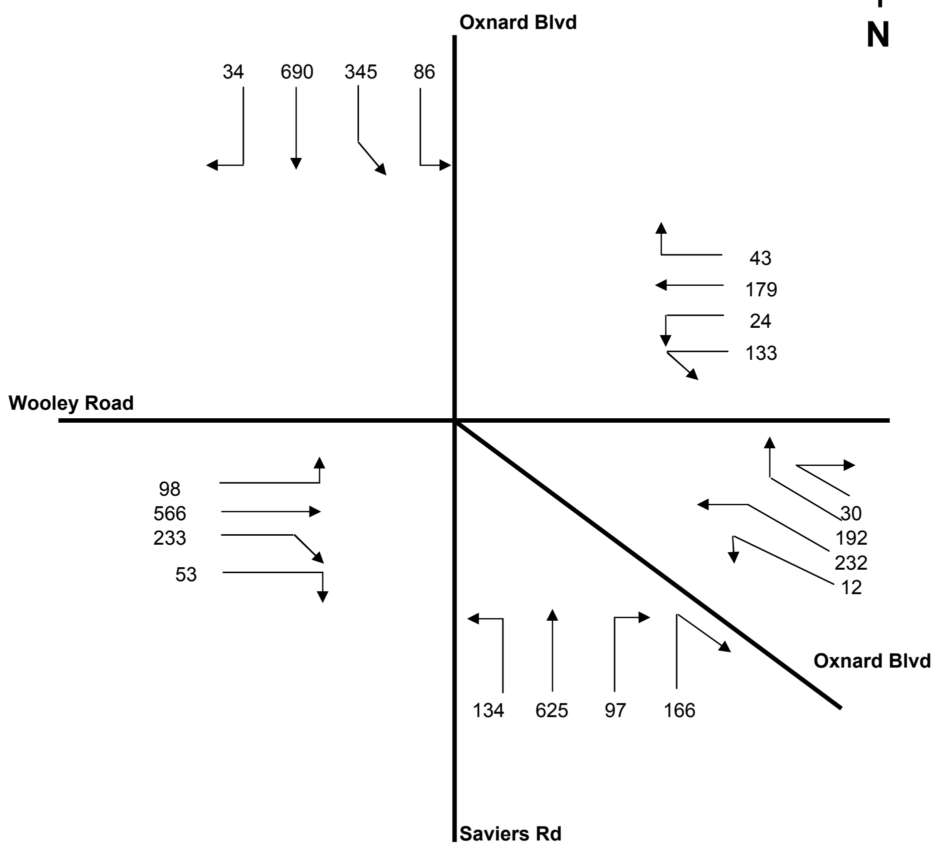
* - Denotes critical movement

2014 EXISTING PLUS PENDING PLUS PROJECT CONDITIONS

Intersection 1

Existing Plus Pending Plus Project A.M. Peak Hour (Year 2014)

N



1. Northbound (Saviers Rd)

$$\frac{625 + 97}{2} \quad \text{or} \quad 134 \quad \text{or} \quad 166$$

= 361

2. Southbound (Oxnard Blvd)

$$\frac{86 + 345}{2} \quad \text{or} \quad \frac{86 + 345 + 690 + 34}{4}$$

= 289

3. North-Westbound (Oxnard Blvd)

$$\frac{12 + 232}{2} \quad \text{or} \quad \frac{192 + 30}{2}$$

= 122

4. Eastbound (Wooley Rd)

$$\frac{98 + 566}{2} \quad \text{or} \quad 233 + 53$$

= 332

5. Westbound (Wooley Rd)

$$\frac{179 + 43}{3} \quad \text{or} \quad 24 + 133$$

= 157

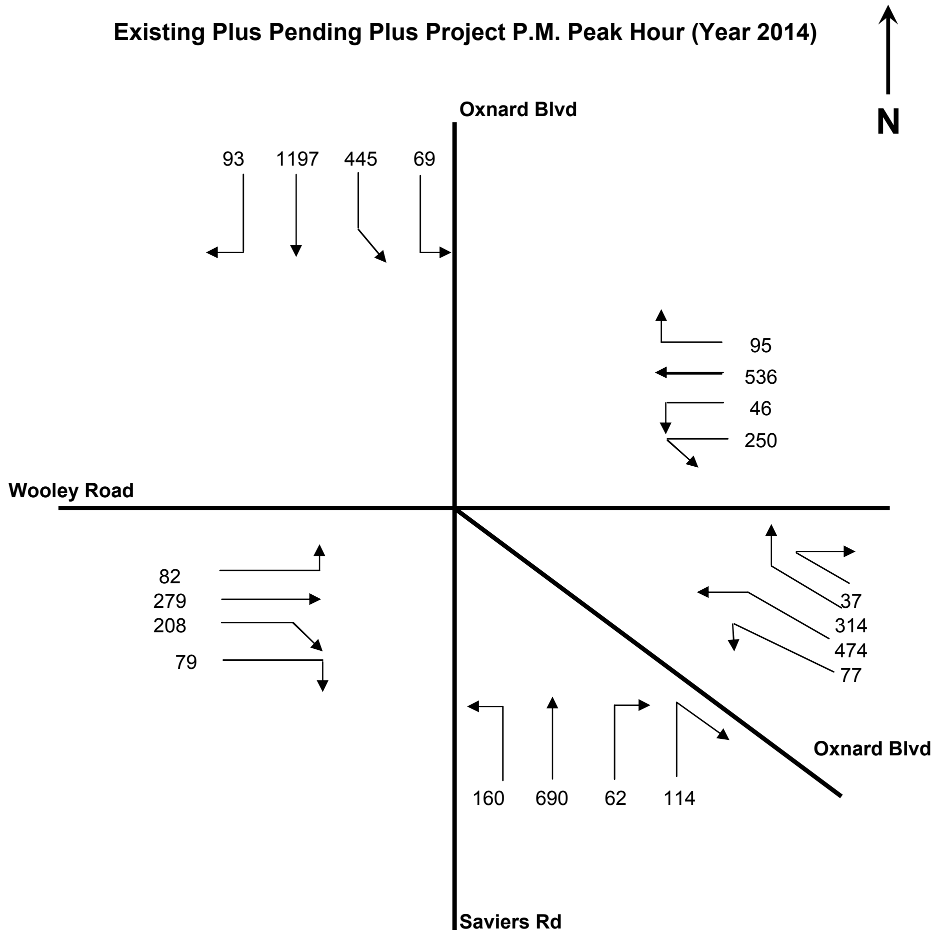
Critical Volumes = 361 + 289 + 122 + 332 + 157 = 1,261

V/C = $\frac{1{,}261}{1{,}600}$ **= 0.788**

LOS	**C**

Intersection 1

Existing Plus Pending Plus Project P.M. Peak Hour (Year 2014)



1. Northbound (Saviers Rd)

$\frac{690 + 62}{2}$ or 160 or 114

= **376**

2. Southbound (Oxnard Blvd)

$\frac{69 + 445}{2}$ or $\frac{69 + 445 + 1197 + 93}{4}$

= **451**

3. North-Westbound (Oxnard Blvd)

$\frac{77 + 474}{2}$ or $\frac{314 + 37}{2}$

= **276**

4. Eastbound (Wooley Rd)

$\frac{82 + 279}{2}$ or 208 + 79

= **287**

5. Westbound (Wooley Rd)

$\frac{536 + 95}{3}$ or 46 + 250

= **296**

Critical Volumes = 376 + 451 + 276 + 287 + 296 = 1,686

V/C = $\frac{\mathbf{1,686}}{\mathbf{1,600}}$ **= 1.054** $\boxed{\textbf{LOS F}}$

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 5th St**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	45	0	0.000	N-S(1):	0.433 *
	TH	2.00	1,162	3,200	0.377	N-S(2):	0.408
	LT	1.00	158	1,600	0.099 *	E-W(1):	0.225 *
Westbound	RT	1.00	39	1,600	0.000	E-W(2):	0.153
	TH	1.00	207	1,600	0.129		
	LT	1.00	76	1,600	0.048 *	V/C:	0.658
Northbound	RT	0.00	100	0	0.000	Lost Time:	0.000
	TH	2.00	970	3,200	0.334 *	ITS:	0.000
	LT	1.00	50	1,600	0.031		
Eastbound	RT	0.00	55	0	0.000	ICU:	0.658
	TH	2.00	510	3,200	0.177 *		
	LT	1.00	38	1,600	0.024	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	78	0	0.000	N-S(1):	0.487
	TH	2.00	1,618	3,200	0.530 *	N-S(2):	0.616 *
	LT	1.00	123	1,600	0.077	E-W(1):	0.225
Westbound	RT	1.00	145	1,600	0.052	E-W(2):	0.360 *
	TH	1.00	524	1,600	0.328 *		
	LT	1.00	124	1,600	0.078	V/C:	0.976
Northbound	RT	0.00	111	0	0.000	Lost Time:	0.000
	TH	2.00	1,202	3,200	0.410	ITS:	0.000
	LT	1.00	137	1,600	0.086 *		
Eastbound	RT	0.00	91	0	0.000	ICU:	0.976
	TH	2.00	380	3,200	0.147		
	LT	1.00	51	1,600	0.032 *	LOS:	E

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & 4th St**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	72	0	0.000	N-S(1):	0.351
	TH	2.00	1,310	3,200	0.432 *	N-S(2):	0.432 *
	LT	1.00	63	1,600	0.039	E-W(1):	0.056
Westbound	RT	1.00	53	1,600	0.013	E-W(2):	0.062 *
	TH	1.00	37	1,600	0.023 *		
	LT	1.00	14	1,600	0.009	V/C:	0.494
Northbound	RT	0.00	13	0	0.000	Lost Time:	0.000
	TH	2.00	986	3,200	0.312	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	29	0	0.000	ICU:	0.494
	TH	1.00	46	1,600	0.047		
	LT	1.00	63	1,600	0.039 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	111	0	0.000	N-S(1):	0.481
	TH	2.00	1,678	3,200	0.559 *	N-S(2):	0.559 *
	LT	1.00	100	1,600	0.063	E-W(1):	0.131
Westbound	RT	1.00	193	1,600	0.089 *	E-W(2):	0.162 *
	TH	1.00	102	1,600	0.064		
	LT	1.00	43	1,600	0.027	V/C:	0.721
Northbound	RT	0.00	16	0	0.000	Lost Time:	0.000
	TH	2.00	1,320	3,200	0.418	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	68	0	0.000	ICU:	0.721
	TH	1.00	99	1,600	0.104		
	LT	1.00	116	1,600	0.073 *	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Gonzales Rd**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	101	1,600	0.016	N-S(1):	0.357 *
	TH	3.00	1,080	4,800	0.225	N-S(2):	0.259
	LT	2.00	445	3,200	0.139 *	E-W(1):	0.375 *
Westbound	RT	1.00	381	1,600	0.169	E-W(2):	0.290
	TH	3.00	941	4,800	0.196		
	LT	2.00	405	3,200	0.127 *	V/C:	0.732
Northbound	RT	1.00	450	1,600	0.218	Lost Time:	0.000
	TH	3.00	1,044	4,800	0.218 *	ITS:	0.000
	LT	2.00	109	3,200	0.034		
Eastbound	RT	0.00	138	0	0.000	ICU:	0.732
	TH	3.00	1,050	4,800	0.248 *		
	LT	2.00	302	3,200	0.094	LOS:	C

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	195	1,600	0.056	N-S(1):	0.409
	TH	3.00	1,573	4,800	0.328 *	N-S(2):	0.415 *
	LT	2.00	455	3,200	0.142	E-W(1):	0.500 *
Westbound	RT	1.00	555	1,600	0.276	E-W(2):	0.410
	TH	3.00	1,340	4,800	0.279		
	LT	2.00	466	3,200	0.146 *	V/C:	0.915
Northbound	RT	1.00	449	1,600	0.208	Lost Time:	0.000
	TH	3.00	1,281	4,800	0.267	ITS:	0.000
	LT	2.00	277	3,200	0.087 *		
Eastbound	RT	0.00	189	0	0.000	ICU:	0.915
	TH	3.00	1,508	4,800	0.354 *		
	LT	2.00	420	3,200	0.131	LOS:	E

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	121	0	0.000		N-S(1):	0.256	*
	TH	3.00	809	4,800	0.194		N-S(2):	0.229	
	LT	2.00	151	3,200	0.047	*	E-W(1):	0.434	*
Westbound	RT	0.00	12	0	0.000		E-W(2):	0.000	
	TH	2.00	501	3,200	0.160	*			
	LT	3.00	611	4,800	0.127		V/C:	0.690	
Northbound	RT	2.00	1,030	3,200	0.195		Lost Time:	0.000	
	TH	2.00	670	3,200	0.209	*	ITS:	0.000	
	LT	2.00	111	3,200	0.035				
Eastbound	RT	1.00	210	1,600	0.114		ICU:	0.690	
	TH	3.00	1,314	4,800	0.274	*			
	LT	1.00	321	1,600	0.201		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	182	0	0.000		N-S(1):	0.381	*
	TH	3.00	1,129	4,800	0.273		N-S(2):	0.370	
	LT	2.00	204	3,200	0.064	*	E-W(1):	0.537	*
Westbound	RT	0.00	29	0	0.000		E-W(2):	0.000	
	TH	2.00	1,146	3,200	0.367	*			
	LT	3.00	1,333	4,800	0.278		V/C:	0.918	
Northbound	RT	2.00	1,101	3,200	0.066		Lost Time:	0.000	
	TH	2.00	1,014	3,200	0.317	*	ITS:	0.000	
	LT	2.00	309	3,200	0.097				
Eastbound	RT	1.00	185	1,600	0.067		ICU:	0.918	
	TH	2.98	813	4,774	0.170				
	LT	1.02	277	1,626	0.170	*	LOS:	E	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Esplanade Dr & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	38	1,600	0.015		N-S(1):	0.052	*
	TH	0.08	4	124	0.032		N-S(2):	0.000	
	LT	1.92	99	3,076	0.032	*	E-W(1):	0.567	*
Westbound	RT	1.00	48	1,600	0.000		E-W(2):	0.211	
	TH	3.00	927	4,800	0.193				
	LT	2.00	382	3,200	0.119	*	V/C:	0.619	
Northbound	RT	1.00	100	1,600	0.003		Lost Time:	0.000	
	TH	0.22	7	350	0.020		ITS:	0.000	
	LT	1.78	57	2,850	0.020	*			
Eastbound	RT	0.00	49	0	0.000		ICU:	0.619	
	TH	3.00	2,100	4,800	0.448	*			
	LT	2.00	59	3,200	0.018		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	204	1,600	0.082		N-S(1):	0.296	*
	TH	0.09	13	144	0.090		N-S(2):	0.000	
	LT	1.91	276	3,056	0.090	*	E-W(1):	0.425	
Westbound	RT	1.00	181	1,600	0.000		E-W(2):	0.557	*
	TH	3.00	2,239	4,800	0.466	*			
	LT	2.00	174	3,200	0.054		V/C:	0.853	
Northbound	RT	1.00	373	1,600	0.206	*	Lost Time:	0.000	
	TH	0.58	104	932	0.112		ITS:	0.000	
	LT	1.42	253	2,268	0.112				
Eastbound	RT	0.00	108	0	0.000		ICU:	0.853	
	TH	3.00	1,675	4,800	0.371				
	LT	2.00	292	3,200	0.091	*	LOS:	D	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 SB Ramps & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.51	287	2,413	0.119	*	N-S(1):	0.119	*
	TH	0.00	0	0	0.000		N-S(2):	0.119	*
	LT	1.49	284	2,387	0.119	*	E-W(1):	0.570	*
Westbound	RT	1.00	403	1,600	0.000		E-W(2):	0.298	
	TH	3.00	1,429	4,800	0.298				
	LT	0.00	0	0	0.000	*	V/C:	0.689	
Northbound	RT	0.00	0	0	0.000		Lost Time:	0.000	
	TH	0.00	0	0	0.000	*	ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	1.00	912	1,600	0.570	*	ICU:	0.689	
	TH	3.00	1,538	4,800	0.320				
	LT	0.00	0	0	0.000		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.37	276	2,197	0.126	*	N-S(1):	0.126	*
	TH	0.00	0	0	0.000		N-S(2):	0.126	*
	LT	1.63	327	2,603	0.126	*	E-W(1):	0.593	*
Westbound	RT	1.00	338	1,600	0.000		E-W(2):	0.452	
	TH	3.00	2,169	4,800	0.452				
	LT	0.00	0	0	0.000	*	V/C:	0.719	
Northbound	RT	0.00	0	0	0.000		Lost Time:	0.000	
	TH	0.00	0	0	0.000	*	ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	1.00	949	1,600	0.593	*	ICU:	0.719	
	TH	3.00	1,482	4,800	0.309				
	LT	0.00	0	0	0.000		LOS:	C	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **US 101 NB Ramps & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	WBR, EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.213 *
	TH	0.00	0	0	0.000	N-S(2):	0.177
	LT	0.00	0	0	0.000 *	E-W(1):	0.263
Westbound	RT	1.00	401	1,600	0.000	E-W(2):	0.365 *
	TH	2.00	1,169	3,200	0.365 *		
	LT	0.00	0	0	0.000	V/C:	0.578
Northbound	RT	1.00	340	1,600	0.213 *	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	566	3,200	0.177		
Eastbound	RT	1.00	478	1,600	0.000	ICU:	0.578
	TH	3.00	1,263	4,800	0.263		
	LT	0.00	0	0	0.000 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.250
	TH	0.00	0	0	0.000 *	N-S(2):	0.265 *
	LT	0.00	0	0	0.000	E-W(1):	0.280
Westbound	RT	1.00	549	1,600	0.000	E-W(2):	0.564 *
	TH	2.00	1,805	3,200	0.564 *		
	LT	0.00	0	0	0.000	V/C:	0.829
Northbound	RT	1.00	400	1,600	0.250	Lost Time:	0.000
	TH	0.00	0	0	0.000	ITS:	0.000
	LT	2.00	847	3,200	0.265 *		
Eastbound	RT	1.00	734	1,600	0.000	ICU:	0.829
	TH	3.00	1,342	4,800	0.280		
	LT	0.00	0	0	0.000 *	LOS:	D

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Riverpark Blvd/Ventura Blvd & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	Y
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	132	3,200	0.020	N-S(1):	0.119 *
	TH	1.00	43	1,600	0.036 *	N-S(2):	0.000
	LT	0.00	15	1,600	0.009	E-W(1):	0.339 *
Westbound	RT	0.00	13	0	0.000	E-W(2):	0.328
	TH	3.00	1,359	4,800	0.286		
	LT	1.00	72	1,600	0.045 *	V/C:	0.458
Northbound	RT	1.00	133	1,600	0.061	Lost Time:	0.000
	TH	0.39	52	626	0.083	ITS:	0.000
	LT	1.61	214	2,574	0.083 *		
Eastbound	RT	0.00	304	0	0.000	ICU:	0.458
	TH	3.00	1,106	4,800	0.294 *		
	LT	2.00	135	3,200	0.042	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	2.00	354	3,200	0.046 *	N-S(1):	0.195 *
	TH	1.00	30	1,600	0.026	N-S(2):	0.000
	LT	0.00	11	1,600	0.007	E-W(1):	0.355
Westbound	RT	0.00	38	0	0.000	E-W(2):	0.492 *
	TH	3.00	1,703	4,800	0.363 *		
	LT	1.00	63	1,600	0.039	V/C:	0.687
Northbound	RT	1.00	116	1,600	0.053	Lost Time:	0.000
	TH	0.40	95	639	0.149	ITS:	0.000
	LT	1.60	381	2,561	0.149 *		
Eastbound	RT	0.00	292	0	0.000	ICU:	0.687
	TH	3.00	1,223	4,800	0.316		
	LT	2.00	412	3,200	0.129 *	LOS:	B

* - Denotes critical movement

Project Title: 2067 - Wagon Wheel
Intersection: Oxnard Bl & US 101 SB Ramps
Description: EXISTING PLUS PENDING PLUS PROJECT (2014)

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR, NBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.191	*
	TH	2.00	598	3,200	0.187		N-S(2):	0.187	
	LT	2.00	143	3,200	0.045	*	E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.212	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.403	
Northbound	RT	1.00	292	1,600	0.000		Lost Time:	0.000	
	TH	4.00	935	6,400	0.146	*	ITS:	0.000	
	LT	0.00	0	0	0.000				
Eastbound	RT	1.00	689	1,600	0.000		ICU:	0.403	
	TH	0.00	0	0	0.000				
	LT	2.00	677	3,200	0.212	*	LOS:	A	

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.184	
	TH	2.00	1,246	3,200	0.389	*	N-S(2):	0.389	*
	LT	2.00	144	3,200	0.045		E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.336	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.725	
Northbound	RT	1.00	238	1,600	0.000		Lost Time:	0.000	
	TH	4.00	891	6,400	0.139		ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	1.00	1,258	1,600	0.000		ICU:	0.725	
	TH	0.00	0	0	0.000				
	LT	2.00	1,074	3,200	0.336	*	LOS:	C	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 NB Ramps**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	SBR, WBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	796	1,600	0.000	N-S(1):	0.326
	TH	4.00	382	6,400	0.060 *	N-S(2):	0.527 *
	LT	0.00	0	0	0.000	E-W(1):	0.089 *
Westbound	RT	1.00	428	1,600	0.000	E-W(2):	0.089 *
	TH	1.00	0	1,600	0.089 *		
	LT	0.00	142	1,600	0.089 *	V/C:	0.616
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	1,042	3,200	0.326	ITS:	0.000
	LT	2.00	1,493	3,200	0.467 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.616
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	1.00	846	1,600	0.000	N-S(1):	0.535 *
	TH	4.00	1,003	6,400	0.157	N-S(2):	0.412
	LT	0.00	0	0	0.000 *	E-W(1):	0.232 *
Westbound	RT	1.00	608	1,600	0.000	E-W(2):	0.232 *
	TH	1.00	0	1,600	0.232 *		
	LT	0.00	371	1,600	0.232 *	V/C:	0.767
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	1,712	3,200	0.535 *	ITS:	0.000
	LT	2.00	816	3,200	0.255		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.767
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000 *	LOS:	C

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & US 101 SB Off-Ramp**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.362 *
	TH	2.00	365	3,200	0.114	N-S(2):	0.114
	LT	0.00	0	0	0.000 *	E-W(1):	0.092 *
Westbound	RT	1.00	124	1,600	0.078	E-W(2):	0.078
	TH	0.00	0	0	0.000		
	LT	2.00	293	3,200	0.092 *	V/C:	0.454
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	1,159	3,200	0.362 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.454
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.262
	TH	2.00	1,365	3,200	0.427 *	N-S(2):	0.427 *
	LT	0.00	0	0	0.000	E-W(1):	0.211 *
Westbound	RT	1.00	178	1,600	0.111	E-W(2):	0.111
	TH	0.00	0	0	0.000		
	LT	2.00	676	3,200	0.211 *	V/C:	0.638
Northbound	RT	0.00	0	0	0.000	Lost Time:	0.000
	TH	2.00	837	3,200	0.262	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.638
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	B

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	73	0	0.000		N-S(1):	0.291	*
	TH	3.00	562	4,800	0.132		N-S(2):	0.158	
	LT	1.00	32	1,600	0.020	*	E-W(1):	0.203	*
Westbound	RT	1.00	57	1,600	0.026		E-W(2):	0.127	
	TH	2.00	187	3,200	0.058				
	LT	2.00	287	3,200	0.090	*	V/C:	0.494	
Northbound	RT	1.00	506	1,600	0.271	*	Lost Time:	0.000	
	TH	2.00	823	3,200	0.257		ITS:	0.000	
	LT	1.00	41	1,600	0.026				
Eastbound	RT	0.00	71	0	0.000		ICU:	0.494	
	TH	2.00	292	3,200	0.113	*			
	LT	1.00	111	1,600	0.069		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	198	0	0.000		N-S(1):	0.356	*
	TH	3.00	1,206	4,800	0.293		N-S(2):	0.341	
	LT	1.00	211	1,600	0.132	*	E-W(1):	0.269	*
Westbound	RT	1.00	46	1,600	0.000		E-W(2):	0.163	
	TH	2.00	341	3,200	0.107				
	LT	2.00	549	3,200	0.172	*	V/C:	0.625	
Northbound	RT	1.00	436	1,600	0.187		Lost Time:	0.000	
	TH	2.00	716	3,200	0.224	*	ITS:	0.000	
	LT	1.00	77	1,600	0.048				
Eastbound	RT	0.00	60	0	0.000		ICU:	0.625	
	TH	2.00	251	3,200	0.097	*			
	LT	1.00	90	1,600	0.056		LOS:	B	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Ventura Rd & Gonzales Rd**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	205	0	0.000		N-S(1):	0.301	
	TH	3.00	746	4,800	0.198	*	N-S(2):	0.401	*
	LT	1.00	136	1,600	0.085		E-W(1):	0.283	
Westbound	RT	0.00	83	0	0.000		E-W(2):	0.310	*
	TH	2.00	490	3,200	0.179	*			
	LT	2.00	311	3,200	0.097		V/C:	0.711	
Northbound	RT	1.00	254	1,600	0.110		Lost Time:	0.000	
	TH	2.00	692	3,200	0.216		ITS:	0.000	
	LT	1.00	325	1,600	0.203	*			
Eastbound	RT	1.00	184	1,600	0.013		ICU:	0.711	
	TH	2.00	595	3,200	0.186				
	LT	1.00	210	1,600	0.131	*	LOS:	C	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	135	0	0.000		N-S(1):	0.348	
	TH	3.00	1,213	4,800	0.281	*	N-S(2):	0.420	*
	LT	1.00	154	1,600	0.096		E-W(1):	0.403	
Westbound	RT	0.00	226	0	0.000		E-W(2):	0.454	*
	TH	2.00	735	3,200	0.300	*			
	LT	2.00	631	3,200	0.197		V/C:	0.874	
Northbound	RT	1.00	503	1,600	0.216		Lost Time:	0.000	
	TH	2.00	806	3,200	0.252		ITS:	0.000	
	LT	1.00	223	1,600	0.139	*			
Eastbound	RT	1.00	193	1,600	0.051		ICU:	0.874	
	TH	2.00	659	3,200	0.206				
	LT	1.00	247	1,600	0.154	*	LOS:	D	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Main St (Spur Dr)**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	293	0	0.000	N-S(1):	0.286
	TH	2.00	794	3,200	0.340 *	N-S(2):	0.368 *
	LT	1.00	157	1,600	0.098	E-W(1):	0.211 *
Westbound	RT	2.00	106	3,200	0.000	E-W(2):	0.000
	TH	0.13	8	202	0.040		
	LT	1.87	119	2,998	0.040 *	V/C:	0.579
Northbound	RT	1.00	94	1,600	0.039	Lost Time:	0.000
	TH	3.00	902	4,800	0.188	ITS:	0.000
	LT	1.00	45	1,600	0.028 *		
Eastbound	RT	1.00	94	1,600	0.000	ICU:	0.579
	TH	1.00	32	1,600	0.020		
	LT	1.00	273	1,600	0.171 *	LOS:	A

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	669	0	0.000	N-S(1):	0.424
	TH	2.00	1,282	3,200	0.610 *	N-S(2):	0.698 *
	LT	1.00	386	1,600	0.241	E-W(1):	0.192 *
Westbound	RT	2.00	195	3,200	0.000	E-W(2):	0.000
	TH	0.24	33	383	0.086		
	LT	1.76	243	2,817	0.086 *	V/C:	0.890
Northbound	RT	1.00	246	1,600	0.111	Lost Time:	0.000
	TH	3.00	876	4,800	0.183	ITS:	0.000
	LT	1.00	141	1,600	0.088 *		
Eastbound	RT	1.00	96	1,600	0.000	ICU:	0.890
	TH	1.00	44	1,600	0.028		
	LT	1.00	169	1,600	0.106 *	LOS:	D

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Walnut Dr & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.050	
	TH	0.00	0	0	0.000	*	N-S(2):	0.073	*
	LT	0.00	0	0	0.000		E-W(1):	0.419	*
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.226	
	TH	3.00	1,087	4,800	0.226				
	LT	1.00	71	1,600	0.044	*	V/C:	0.492	
Northbound	RT	0.30	35	483	0.050		Lost Time:	0.000	
	TH	0.00	0	0	0.000		ITS:	0.000	
	LT	0.70	81	1,117	0.073	*			
Eastbound	RT	0.00	56	0	0.000		ICU:	0.492	
	TH	2.00	1,144	3,200	0.375	*			
	LT	0.00	0	0	0.000		LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.049	
	TH	0.00	0	0	0.000	*	N-S(2):	0.068	*
	LT	0.00	0	0	0.000		E-W(1):	0.366	*
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.287	
	TH	3.00	1,378	4,800	0.287				
	LT	1.00	60	1,600	0.038	*	V/C:	0.434	
Northbound	RT	0.33	36	528	0.049		Lost Time:	0.000	
	TH	0.00	0	0	0.000		ITS:	0.000	
	LT	0.67	73	1,072	0.068	*			
Eastbound	RT	0.00	100	0	0.000		ICU:	0.434	
	TH	2.00	951	3,200	0.328	*			
	LT	0.00	0	0	0.000		LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Stroube St & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	21	0	0.000	N-S(1):	0.221 *
	TH	1.00	34	1,600	0.094	N-S(2):	0.163
	LT	0.00	96	1,600	0.060 *	E-W(1):	0.389 *
Westbound	RT	0.00	37	0	0.000	E-W(2):	0.262
	TH	3.00	1,178	4,800	0.253		
	LT	1.00	84	1,600	0.053 *	V/C:	0.610
Northbound	RT	0.00	120	0	0.000	Lost Time:	0.000
	TH	1.00	26	1,600	0.161 *	ITS:	0.000
	LT	0.00	111	1,600	0.069		
Eastbound	RT	0.00	19	0	0.000	ICU:	0.610
	TH	2.00	1,056	3,200	0.336 *		
	LT	1.00	14	1,600	0.009	LOS:	B

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	12	0	0.000	N-S(1):	0.261 *
	TH	1.00	41	1,600	0.076	N-S(2):	0.176
	LT	0.00	69	1,600	0.043 *	E-W(1):	0.441 *
Westbound	RT	0.00	34	0	0.000	E-W(2):	0.332
	TH	3.00	1,446	4,800	0.308		
	LT	1.00	157	1,600	0.098 *	V/C:	0.702
Northbound	RT	0.00	162	0	0.000	Lost Time:	0.000
	TH	1.00	26	1,600	0.218 *	ITS:	0.000
	LT	0.00	160	1,600	0.100		
Eastbound	RT	0.00	74	0	0.000	ICU:	0.702
	TH	2.00	1,024	3,200	0.343 *		
	LT	1.00	38	1,600	0.024	LOS:	C

* - Denotes critical movement

Project Title: 2067 - Wagon Wheel
Intersection: Ventura Rd & Main Street (Village Parkway Drive)
Description: EXISTING PLUS PENDING PLUS PROJECT (2014)

Date/Time: AM PEAK HOUR

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.200 *
	TH	2.00	442	3,200	0.138	N-S(2):	0.138
	LT	1.00	26	1,600	0.016 *	E-W(1):	0.058 *
Westbound	RT	1.00	14	1,600	0.001	E-W(2):	0.001
	TH	0.00	0	0	0.000		
	LT	1.00	92	1,600	0.058 *	V/C:	0.258
Northbound	RT	0.00	73	0	0.000	Lost Time:	0.000
	TH	3.00	811	4,800	0.184 *	ITS:	0.000
	LT	0.00	0	0	0.000		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.258
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

Date/Time: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS	
Southbound	RT	0.00	0	0	0.000	N-S(1):	0.131
	TH	2.00	1,106	3,200	0.346 *	N-S(2):	0.346 *
	LT	1.00	59	1,600	0.037	E-W(1):	0.053 *
Westbound	RT	1.00	19	1,600	0.000	E-W(2):	0.000
	TH	0.00	0	0	0.000		
	LT	1.00	85	1,600	0.053 *	V/C:	0.399
Northbound	RT	0.00	134	0	0.000	Lost Time:	0.000
	TH	3.00	318	4,800	0.094	ITS:	0.000
	LT	0.00	0	0	0.000 *		
Eastbound	RT	0.00	0	0	0.000	ICU:	0.399
	TH	0.00	0	0	0.000 *		
	LT	0.00	0	0	0.000	LOS:	A

* - Denotes critical movement

2014 EXISTING PLUS PENDING PLUS PROJECT CONDITIONS
MITIGATED

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Vineyard Av**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :	NBR		
FF Movements:			

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	121	0	0.000		N-S(1):	0.242	*
	TH	4.00	809	6,400	0.145		N-S(2):	0.180	
	LT	2.00	151	3,200	0.047	*	E-W(1):	0.434	*
Westbound	RT	0.00	12	0	0.000		E-W(2):	0.000	
	TH	2.00	501	3,200	0.160	*			
	LT	3.00	611	4,800	0.127		V/C:	0.676	
Northbound	RT	2.00	1,030	3,200	0.195	*	Lost Time:	0.000	
	TH	3.00	670	4,800	0.140		ITS:	0.000	
	LT	2.00	111	3,200	0.035				
Eastbound	RT	1.00	210	1,600	0.114		ICU:	0.676	
	TH	3.00	1,314	4,800	0.274	*			
	LT	1.00	321	1,600	0.201		LOS:	B	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	182	0	0.000		N-S(1):	0.275	
	TH	4.00	1,129	6,400	0.205	*	N-S(2):	0.302	*
	LT	2.00	204	3,200	0.064		E-W(1):	0.537	*
Westbound	RT	0.00	29	0	0.000		E-W(2):	0.000	
	TH	2.00	1,146	3,200	0.367	*			
	LT	3.00	1,333	4,800	0.278		V/C:	0.839	
Northbound	RT	2.00	1,101	3,200	0.066		Lost Time:	0.000	
	TH	3.00	1,014	4,800	0.211		ITS:	0.000	
	LT	2.00	309	3,200	0.097	*			
Eastbound	RT	1.00	185	1,600	0.067		ICU:	0.839	
	TH	2.98	813	4,774	0.170				
	LT	1.02	277	1,626	0.170	*	LOS:	D	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & US 101 SB Ramps**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	N
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR, NBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.191	*
	TH	3.00	598	4,800	0.125		N-S(2):	0.125	
	LT	2.00	143	3,200	0.045	*	E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.212	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.403	
Northbound	RT	1.00	292	1,600	0.000		Lost Time:	0.000	
	TH	4.00	935	6,400	0.146	*	ITS:	0.000	
	LT	0.00	0	0	0.000				
Eastbound	RT	1.00	689	1,600	0.000		ICU:	0.403	
	TH	0.00	0	0	0.000				
	LT	2.00	677	3,200	0.212	*	LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	0.00	0	0	0.000		N-S(1):	0.184	
	TH	3.00	1,246	4,800	0.260	*	N-S(2):	0.260	*
	LT	2.00	144	3,200	0.045		E-W(1):	0.000	
Westbound	RT	0.00	0	0	0.000		E-W(2):	0.336	*
	TH	0.00	0	0	0.000	*			
	LT	0.00	0	0	0.000		V/C:	0.596	
Northbound	RT	1.00	238	1,600	0.000		Lost Time:	0.000	
	TH	4.00	891	6,400	0.139		ITS:	0.000	
	LT	0.00	0	0	0.000	*			
Eastbound	RT	1.00	1,258	1,600	0.000		ICU:	0.596	
	TH	0.00	0	0	0.000				
	LT	2.00	1,074	3,200	0.336	*	LOS:	A	

* - Denotes critical movement

Project Title: **2067 - Wagon Wheel**
Intersection: **Oxnard Bl & Main St (Spur Dr)**
Description: **EXISTING PLUS PENDING PLUS PROJECT (2014)**

Date/Time: **AM PEAK HOUR**

Thru Lane:	1600 vph	N-S Split Phase :	N
Left Lane:	1600 vph	E-W Split Phase :	Y
Double Lt Penalty:	0 %	Lost Time (% of cycle) :	0
ITS:	0 %	V/C Round Off (decs.) :	3
OLA Movements :			
FF Movements:	EBR		

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	293	1,600	0.135		N-S(1):	0.237	*
	TH	3.00	794	4,800	0.165		N-S(2):	0.193	
	LT	2.00	157	3,200	0.049	*	E-W(1):	0.135	*
Westbound	RT	2.00	106	3,200	0.009		E-W(2):	0.000	
	TH	0.13	8	202	0.040				
	LT	1.87	119	2,998	0.040	*	V/C:	0.372	
Northbound	RT	1.00	94	1,600	0.039		Lost Time:	0.000	
	TH	3.00	902	4,800	0.188	*	ITS:	0.000	
	LT	1.00	45	1,600	0.028				
Eastbound	RT	1.00	94	1,600	0.000		ICU:	0.372	
	TH	0.21	32	336	0.095				
	LT	1.79	273	2,864	0.095	*	LOS:	A	

Date/Time: **PM PEAK HOUR**

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C		ICU ANALYSIS		
Southbound	RT	1.00	669	1,600	0.385	*	N-S(1):	0.304	
	TH	3.00	1,282	4,800	0.267		N-S(2):	0.473	*
	LT	2.00	386	3,200	0.121		E-W(1):	0.153	*
Westbound	RT	2.00	195	3,200	0.001		E-W(2):	0.000	
	TH	0.24	33	383	0.086				
	LT	1.76	243	2,817	0.086	*	V/C:	0.626	
Northbound	RT	1.00	246	1,600	0.111		Lost Time:	0.000	
	TH	3.00	876	4,800	0.183		ITS:	0.000	
	LT	1.00	141	1,600	0.088	*			
Eastbound	RT	1.00	96	1,600	0.000		ICU:	0.626	
	TH	0.41	44	661	0.067				
	LT	1.59	169	2,539	0.067	*	LOS:	B	

* - Denotes critical movement

APPENDIX D

HCM ANALYSIS WORKSHEETS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.86	1.00	0.97	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					6408	1583	3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					6408	1583	3433	3539	
Volume (vph)	64	0	1258	0	0	0	0	873	238	144	516	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	67	0	1324	0	0	0	0	919	251	152	543	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	34	33	1324	0	0	0	0	919	251	152	543	0
Turn Type	Perm		Free						Free	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	4.9	4.9	110.0					79.6	110.0	10.3	94.5	
Effective Green, g (s)	5.5	5.5	110.0					81.6	110.0	10.9	96.5	
Actuated g/C Ratio	0.05	0.05	1.00					0.74	1.00	0.10	0.88	
Clearance Time (s)	4.6	4.6						6.0		4.6	6.0	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)	84	84	1583					4754	1583	340	3105	
v/s Ratio Prot								0.14		0.04	0.15	
v/s Ratio Perm	0.02	0.02	c0.84						0.16			
v/c Ratio	0.40	0.39	0.84					0.19	0.16	0.45	0.17	
Uniform Delay, d1	50.7	50.6	0.0					4.3	0.0	46.7	1.0	
Progression Factor	1.00	1.00	1.00					0.82	1.00	1.14	0.31	
Incremental Delay, d2	3.2	3.0	5.4					0.1	0.2	0.8	0.1	
Delay (s)	53.8	53.6	5.4					3.6	0.2	53.9	0.4	
Level of Service	D	D	A					A	A	D	A	
Approach Delay (s)		7.7			0.0			2.9			12.1	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.86	1.00	0.97	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					6408	1583	3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					6408	1583	3433	3539	
Volume (vph)	1074	0	1176	0	0	0	0	890	191	144	1170	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1131	0	1238	0	0	0	0	937	201	152	1232	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	566	565	1238	0	0	0	0	937	201	152	1232	0
Turn Type	Perm		Free						Free	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	41.6	41.6	110.0					43.5	110.0	9.7	57.8	
Effective Green, g (s)	42.2	42.2	110.0					45.5	110.0	10.3	59.8	
Actuated g/C Ratio	0.38	0.38	1.00					0.41	1.00	0.09	0.54	
Clearance Time (s)	4.6	4.6						6.0		4.6	6.0	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)	645	645	1583					2651	1583	321	1924	
v/s Ratio Prot								0.15		0.04	0.35	
v/s Ratio Perm	c0.34	0.34	c0.78						0.13			
v/c Ratio	0.88	0.88	0.78					0.35	0.13	0.47	0.64	
Uniform Delay, d1	31.5	31.5	0.0					22.1	0.0	47.3	17.6	
Progression Factor	1.00	1.00	1.00					0.55	1.00	1.42	0.51	
Incremental Delay, d2	12.8	12.7	3.9					0.3	0.2	0.8	1.3	
Delay (s)	44.3	44.2	3.9					12.5	0.2	67.7	10.2	
Level of Service	D	D	A					B	A	E	B	
Approach Delay (s)		23.2			0.0			10.3			16.6	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.86	1.00	0.97	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					6408	1583	3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					6408	1583	3433	3539	
Volume (vph)	1074	0	1258	0	0	0	0	891	238	144	1246	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1131	0	1324	0	0	0	0	938	251	152	1312	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	566	565	1324	0	0	0	0	938	251	152	1312	0
Turn Type	Perm		Free						Free	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	41.6	41.6	110.0					43.5	110.0	9.7	57.8	
Effective Green, g (s)	42.2	42.2	110.0					45.5	110.0	10.3	59.8	
Actuated g/C Ratio	0.38	0.38	1.00					0.41	1.00	0.09	0.54	
Clearance Time (s)	4.6	4.6						6.0		4.6	6.0	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)	645	645	1583					2651	1583	321	1924	
v/s Ratio Prot								0.15		0.04	0.37	
v/s Ratio Perm	0.34	0.34	c0.84						0.16			
v/c Ratio	0.88	0.88	0.84					0.35	0.16	0.47	0.68	
Uniform Delay, d1	31.5	31.5	0.0					22.2	0.0	47.3	18.2	
Progression Factor	1.00	1.00	1.00					0.64	1.00	1.40	0.60	
Incremental Delay, d2	12.8	12.7	5.4					0.3	0.2	0.7	1.3	
Delay (s)	44.3	44.2	5.4					14.5	0.2	66.7	12.2	
Level of Service	D	D	A					B	A	E	B	
Approach Delay (s)		23.3			0.0			11.5			17.8	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0					4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00					0.86	1.00	0.97	0.95	
Frt	1.00	1.00	0.85					1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1681	1681	1583					6408	1583	3433	3539	
Flt Permitted	0.95	0.95	1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1681	1681	1583					6408	1583	3433	3539	
Volume (vph)	1074	0	1258	0	0	0	0	891	238	144	1246	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1131	0	1324	0	0	0	0	938	251	152	1312	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	566	565	1324	0	0	0	0	938	251	152	1312	0
Turn Type	Perm		Free						Free	Prot		
Protected Phases		4						2		1	6	
Permitted Phases	4		Free						Free			
Actuated Green, G (s)	41.6	41.6	110.0					43.6	110.0	9.6	57.8	
Effective Green, g (s)	42.2	42.2	110.0					45.6	110.0	10.2	59.8	
Actuated g/C Ratio	0.38	0.38	1.00					0.41	1.00	0.09	0.54	
Clearance Time (s)	4.6	4.6						6.0		4.6	6.0	
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Lane Grp Cap (vph)	645	645	1583					2656	1583	318	1924	
v/s Ratio Prot								0.15		0.04	0.37	
v/s Ratio Perm	0.34	0.34	c0.84						0.16			
v/c Ratio	0.88	0.88	0.84					0.35	0.16	0.48	0.68	
Uniform Delay, d1	31.5	31.5	0.0					22.1	0.0	47.4	18.2	
Progression Factor	1.00	1.00	1.00					0.67	1.00	1.37	0.29	
Incremental Delay, d2	12.8	12.7	5.4					0.3	0.2	1.0	1.8	
Delay (s)	44.3	44.2	5.4					15.2	0.2	66.1	7.0	
Level of Service	D	D	A					B	A	E	A	
Approach Delay (s)		23.3			0.0			12.0			13.2	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Appendix G

Water Supply Assessment and
Wastewater Infrastructure Review

Kennedy/Jenks Consultants
1000 Hill Road, Suite 200
Ventura, California 93003
805-658-0607
805-650-1522 (Fax)

Wagon Wheel Development Infrastructure Review - Wastewater

August 2007

Prepared for

Rincon Consultants, Inc
790 E. Santa Clara Street
Ventura, CA 93001

K/J Project No. 0789001

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Section 1: Background and Purpose

1.1 Background

The Wagon Wheel Specific Plan area consists of the re-development of approximately 64 acre parcel located in the City of Oxnard. The Specific Plan area is bounded between the Ventura Freeway (US101) on the north, Oxnard Boulevard on the east, Ventura Boulevard on the west and the Union Pacific Railroad tracks on the south. Figure 1-1 in the Water and Recycled Water Infrastructure Report, (which is Exhibit 2-1 in the Specific Plan) provides the location of the Specific Plan area, along with permitted land uses. The project developer is the Daly Owens Group and as currently proposed, the project consists of:

- Twenty (20) planning areas;
- An overall development that includes 1,500 dwelling units and 47,000 square feet of commercial buildings.
- Amenity (park) areas.

Table 1-1 presents the planned land uses:

TABLE 1-1
PERMITTED LAND USES

Category	Allowable Density du/ac	Proposed Dwelling Units	Proposed Acres	Proposed Commercial Sq. Feet
High density residential	18-30	679	30.8	
Live/work townhomes	18-30	14	0.6	4,000
Very high density residential	30-70	112	2.1	
High –rise residential[(a)]	70-100	442	4.8	
Mixed use	30-70	253	6.9	19,000
Village commercial			1.1	12,000
Public facilities (transit center)			0.6	
Parks and open space			6.3	
Major streets			10.1	
		1,500	**63.3**	**50,400**

Note: (a) High rise is planned to be twenty-five (25) stories with a height of 270 feet.

Figures 1-2 and 1-3 in the earlier Water and Recycled Water Infrastructure Report illustrate the land use plan for the development and the open space/recreational concept, respectively.

Ingress/egress for the development area is from Ventura Road on the west and Oxnard Boulevard on the east. The latter is significant because it is the location for the proposed points of connection for water and sewer facilities (Oxnard Boulevard at Esplanade Drive).

It is noted that for wastewater or sewer service, an 18-inch vitrified clay pipe (VCP) crosses under the Ventura County Flood Control El-Rio Drain and Union Pacific Railroad at approximately the center of the site. South of the channel crossing, the sewer line changes to a 12-inch pipeline and continues southerly in Grapevine Drive ultimately to the Ventura Road Trunk Sewer. The developer has proposed to connect to the existing 18-inch VCP at the north side of the Union Pacific Railroad right-of-way. The existing sewer infrastructure will be abandoned or removed and a new sewer is proposed to be constructed in Village Parkway, beginning at the project entrance at Oxnard Boulevard across from Esplanade Drive.

If approved, and as indicated by the developer, build-out of the project will take approximately six (6) to eight (8) years from the approval, with the first units projected for occupancy in 2009.

1.2 Technical Memorandum Purpose

The purpose of this Technical Memorandum (TM) is to evaluate the ability of the City's existing and/or planned wastewater systems to accommodate the planned development of the Wagon Wheel Specific Plan area as well as specific connection and/or system extension requirements to provide those services.

This review is part of the orderly development of properties within the City of Oxnard and is precedent to the development of specific conditions of development. The findings and recommendations are based upon current understanding of the capabilities of the existing and/or planned systems. There is no specific representation as to the actual conditions in the future beyond those based on the best available information.

This report supplements a report date June 2007 which provides additional background information and analyzes domestic water and recycled water systems. Certain information from that earlier report will not be repeated.

Section 2: Description of the Project

2.1 Description of Development

Planned for the Wagon Wheel Specific Plan area are the land uses described in Section 1.1.

2.2 Ownership/Developers

The owner and developer of the Wagon Wheel property is :

Daly Owens Group
31304 Via Colinas, Suite 103
Westlake Village, CA 91362

The civil site engineer is:

Huitt-Zollars, inc
Jim Faul
2525 Townsgate Road
Westlake Village, CA 91361

2.3 Phasing and Schedule

The developers of the Wagon Wheel Specific Plan area have indicated that development, if as planned, will occur between the period of 2009 and 2015-2017.

Section 3: Evaluation of Wastewater Facilities

3.1 Flow Generation

3.1.1 Wagon Wheel Flows Developed in Oxnard Wastewater Master Plan

The water supply assessment for the Wagon Wheel development was written over a year after the 2005 Draft Oxnard Wastewater Master Plan Update (2005 DWWMPU) was submitted to the City of Oxnard for review. The flows in the wastewater model were developed using future land uses for the parcels contained within the proposed Wagon Wheel development boundaries as specified in the 2020 General Plan since the specific plan land uses were not yet finalized. These land uses roughly mirrored the eventual specific plan but contained more retail commercial and less high-density residential than is currently proposed. As such, the average day wastewater flows for Wagon Wheel parcels modeled in the 2005 DWWMPU using 2020 General Plan land uses are 15% less than the wastewater flows developed using the Wagon Wheel specific plan land uses. The former average day wastewater flows were calculated to be 259 gpm compared to the revised average day wastewater flows of 304 gpm. Such differences are expected which is why the model is designed to be updated as new development information becomes available. Detail of the how the revised Wagon Wheel average day wastewater flows were developed is presented in the Section 3.1.2.

As part of the 2005 DWWMPU, water billing data and results from a flow monitoring study were made available to Kennedy/Jenks Consultants. The wastewater flows for parcels comprising the Wagon Wheel development were derived using those resources. The average day wastewater flows were calculated to be 45 gpm. This value is more accurate in determining existing wastewater generation than using wastewater duty factors because it uses water billing data specific to the site. This value is used as the baseline to determine the incremental cost of additional wastewater flows from Wagon Wheel.

3.1.2 Wagon Wheel Flows Developed for this Infrastructure Review

Table 3-1 updates the wastewater flows for Wagon Wheel:

TABLE 3-1
WASTEWATER FLOWS

Land Use Type	Acreage	Wastewater Duty Factor (gpad)	Wastewater Flow (gpd)	Wastewater Flow (gpm)
High density residential	30.8	6350	195,580	135.8
Live/work townhomes	0.6	6350	3,810	2.6
Very high density residential	2.1	15600	32,760	22.8
High–rise residential	4.8	26600	127,680	88.7
Mixed-use	6.9	10600	73,140	50.8
Village commercial	1.1	3000	3,330	2.3
Public facilities (transit center)	0.6	1350	810	0.6

Land Use Type	Acreage	Wastewater Duty Factor (gpad)	Wastewater Flow (gpd)	Wastewater Flow (gpm)
Total Average Day Flow			437,080	**304**
Total Peak Dry Weather Flow (PDWF = 1.78)			777,540	**540**
RDI/I	63.3	600	37,980	27
Total Peak Wet Weather Flow			815,520	**567**

The peak dry weather factor was calculated using the following equation as given in the 2005 DWWMPU:

$$\textbf{Peak Dry Weather Factor} = 1.73 \times (\textbf{Average Dry Weather Flow Rate})^{-0.0337}$$

This produced a Peak Dry Weather Factor of 1.78 for the average day flow resulting in a Peak Dry Weather Flow of 540 gpm. The Rainfall Dependent Inflow/Infiltration (RDI/I) was calculated for the entire 64 acre project area using a value of 600 gpad. Therefore, the RDI/I is 27 gpm and the Peak Wet Weather Flow (PWWF) is 567 gpm.

3.2 Collection System Design Criteria

The design criteria were developed and utilized for the 2005 DWWMPU. These criteria are presented as follow:

3.2.1 Gravity Main Criteria

Gravity sewers were evaluated through the use of a static sewer model for the purposes of the 2005 DWWMPU. Sanitary sewer overflow (SSO) identification and pipeline sizing were based on the Manning's equation and the following criteria:

- Pipes 10-inches in diameter and smaller: 1/2 full at peak wet flow
- Pipes over 10-inches in diameter: 2/3 full at peak wet flow
- Minimum velocity: 2 feet per second
- Maximum velocity: 10 feet per second
- Manning's n: 0.0135
- Minimum Slope requirements: See Table 3-2 below
- Pipelines identified to remediate hydraulic deficiencies shall be conservatively based on full replacement for pipe diameter and costs

TABLE 3-2
MINIMUM SLOPE REQUIREMENTS

Sewer Size (in)	Grade (ft/ft)
8 inch	0.0040
10 inch	0.0028
12 inch	0.0020
15 inch	0.0016
16 inch	0.0016
18 inch	0.0016
21 inch	0.0012
24 inch	0.0012
27 inch	0.0012
30 inch	0.0012
33 inch	0.0012
36 inch	0.0012
42 inch	0.0012
48 inch	0.0012
54 inch	0.0012
60 inch	0.0012
66 inch	0.0012

3.2.2 Force Main Criteria

The following pertain:

- Minimum Force Main Diameter: 4 inches
- Minimum Velocity: 3 feet per second
- Maximum Velocity: 5 feet per second
- Maximum allowable headloss: 10 feet/1000 feet of pipeline
- Maximum desirable headloss: 5 feet/1000 feet of pipeline
- Hazen-Williams C factor: 120

3.2.3 Pump Station Criteria

Pump stations should be sized for the peak wet weather flow rate plus an additional 20% capacity to account for condition deterioration over time, miscellaneous debris, etc. that may reduce pumping performance. Pump stations should be capable of meeting the following criteria with the largest capacity pump serving as standby:

- Manufacturers recommended cycling times for pumping equipment.

- 60 percent pump efficiency is assumed, except where other information is available.
- 90 percent motor efficiency is assumed, except where other information is available.

3.3 City Wastewater Trunk Sewer/Treatment Facilities

The Oxnard Wastewater Treatment Plant (OWTP) has a current capacity of 31.7 million gallons per day (mgd) with average daily flows of approximately 24.0 mgd. The City anticipates expansion of the plant to 39.7 mgd by 2020. There is and will be sufficient capacity to accommodate the flows from the Wagon Wheel as well as from other planned developments.

The Wagon Wheel development is served by an existing sewer collection system which flows southerly to a 12-inch line along Grapevine Drive then westerly for a short distance along Rosebud Drive before turning southerly along H Street. The 12-inch line turns westerly onto Vineyard Avenue until Lift Station 23 at the intersection of Vineyard Avenue and Ventura Road. There, the flow is pumped southerly along Ventura Road through a 10-inch force main to a 15-inch gravity line that connects with the recently constructed Redwood Trunk Sewer that continues southerly along Ventura Road. Redwood Trunk Sewer was designed to relieve the former Ventura Trunk Sewer and to open up capacity along the Central Trunk Sewer. It was also designed to accept flows from future growth and anticipated specific plans.

3.4 City Wastewater Pipeline Capacity and Pump Station Facilities

As part of the 2005 DWWMPU, a computer model was created for the purpose of simulating wastewater system performance and identifying deficiencies under various peak flow scenarios. The two scenarios used for design were peak wet weather flows under existing and ultimate build-out conditions.

Build-out conditions for the wastewater model was assumed to be 2020 which is the time frame of the current "Save Our Agricultural Resources" (SOAR) boundary which limits the extent of urban growth, or rather the extent of urban infrastructure such as wastewater and water services.

The existing diameters of the sewers serving the parcels comprising the proposed Wagon Wheel development as well as the sewers conveying the flows downstream are presented in Tables 3-3 and 3-4. For much of the conveyance system the model produced a pipe size one diameter step larger for the Wagon Wheel scenario compared to the scenario using existing peak wet weather flows for the Wagon Wheel site. This resulted in an incremental cost difference of $792,000. This assumes pipe replacement. The costs were calculated using the pipe cost table in the 2005 DWWMPU which was updated to the most current ENR-CCI (May 2007).

Lift Station 23 (LS #23) is rated at 1,500 gpm. Existing peak wet weather wastewater flows into LS #23 are 980 gpm, which when multiplied by a design factor of 1.2 (see Section 1.2.3) results in a design flow of 1,180 gpm. Without Wagon Wheel (read: maintaining existing wastewater flows at the site), ultimate peak wet weather flows into LS #23 are expected to be 1,270 gpm, which when multiplied by a design factor of 1.2 results in a design flow of 1,530 gpm. That is 30 gpm higher than the rated capacity of Lift Station #23. With Wagon Wheel, ultimate peak wet weather flows into LS #23 are expected to be 1,710 gpm, which when multiplied by a design factor of 1.2 results in a design flow of 2,050 gpm. This design flow is 550 gpm higher than the rated capacity of the existing LS #23 pumps. The 2005 DWWMPU expected flows of 1,670 gpm which would require a lift station capable of pumping 2,000 gpm. The 500 gpm upgrade was calculated to cost $75,000 in January 2006 dollars. Using the ENR-CCI, this value is now $78,000. Using the "Without Wagon Wheel" design flow of 1,530 gpm as the baseline, Wagon Wheel design flow is approximately 500 gpm above that baseline. Assuming linear translation, the incremental cost of improving the Lift Station #23 upgrade from 1,550 gpm to 2,050 gpm is $78,000.

3.5 Incremental Costs

The incremental cost difference for larger replacement sewers to accommodate the Wagon Wheel development is $792,000 and the cost difference for incrementally upgrading Lift Station 23 is $78,000. The total incremental cost is $870,000. There is no determination via this report with respect to what is considered or not considered to be a part of the Wastewater Capital Facilities Fees/Connection Fees.

TABLE 3-3
PIPELINE CAPITAL COSTS

Sewer Segment	Existing Diameter Inches	Ultimate Diameter Without Wagon Wheel	Ultimate Diameter With Wagon Wheel	Capital Cost Without Wagon Wheel	Capital Cost With Wagon Wheel
1	10 inch	10 inch	10 inch	$0	$0
2	8 inch	8 inch	10 inch	$0	$80,700
3	8 inch	8 inch	10 inch	$0	$87,400
4	10 inch	10 inch	10 inch	$0	$0
5	10 inch	12 inch	12 inch	$51,200	$51,200
6	10 inch	12 inch	12 inch	$11,700	$11,700
7	10 inch	12 inch	12 inch	$78,700	$78,700
8	10 inch	12 inch	12 inch	$118,400	$118,400
9	10 inch	12 inch	15 inch	$109,900	$114,800
10	10 inch	12 inch	15 inch	$109,600	$114,500
11	8 inch	12 inch	15 inch	$128,900	$134,600
12	18 inch	18 inch	18 inch	$0	$0
13	12 inch	12 inch	18 inch	$0	$41,500
14	12 inch	12 inch	18 inch	$0	$55,100
15	12 inch	15 inch	18 inch	$118,100	$167,200
16	12 inch	15 inch	18 inch	$16,200	$23,000
17	12 inch	15 inch	18 inch	$99,800	$141,200
18	12 inch	15 inch	18 inch	$116,900	$165,500
19	12 inch	15 inch	18 inch	$33,100	$46,800
20	12 inch	15 inch	18 inch	$92,900	$131,500
21	12 inch	15 inch	18 inch	$60,200	$85,200
22	12 inch	15 inch	18 inch	$103,600	$146,600
23	12 inch	15 inch	18 inch	$103,800	$147,000
24	12 inch	15 inch	18 inch	$107,800	$152,600
25	12 inch	15 inch	18 inch	$39,600	$56,100
26	12 inch	15 inch	18 inch	$36,300	$51,300
27	12 inch	18 inch	21 inch	$54,400	$56,800
28	12 inch	18 inch	21 inch	$174,600	$182,300
29	12 inch	18 inch	21 inch	$167,200	$174,600
30	12 inch	18 inch	21 inch	$71,000	$74,100
31	12 inch	18 inch	21 inch	$33,100	$34,600
32	12 inch	18 inch	21 inch	$73,500	$76,700
33	12 inch	18 inch	21 inch	$169,000	$176,400
34	12 inch	18 inch	21 inch	$110,000	$114,800
35	12 inch	18 inch	21 inch	$56,500	$59,000
36	12 inch	18 inch	21 inch	$170,700	$178,200
37	12 inch	18 inch	21 inch	$174,200	$181,800
38	12 inch	18 inch	21 inch	$56,200	$58,600
39	8 inch	18 inch	21 inch	$32,200	$33,600

Sewer Segment	Existing Diameter Inches	Ultimate Diameter Without Wagon Wheel	Ultimate Diameter With Wagon Wheel	Capital Cost Without Wagon Wheel	Capital Cost With Wagon Wheel
40	15 inch	18 inch	21 inch	$7,400	$7,700
41	15 inch	18 inch	21 inch	$235,500	$245,900
42	15 inch	18 inch	21 inch	$87,000	$90,800
43	15 inch	18 inch	21 inch	$203,000	$211,900
44	15 inch	18 inch	21 inch	$203,200	$212,200
45	15 inch	18 inch	21 inch	$201,300	$210,200
46	15 inch	18 inch	21 inch	$156,200	$163,100
47	15 inch	18 inch	21 inch	$110,900	$115,800
48	15 inch	18 inch	21 inch	$26,800	$27,900
49	18 inch	18 inch	21 inch	$0	$13,000
50	42 inch	42 inch	42 inch	$0	$0
51	42 inch	42 inch	42 inch	$0	$0
52	42 inch	42 inch	42 inch	$0	$0
53	42 inch	42 inch	42 inch	$0	$0
Total				$4,110,600	$4,902,600
Difference Compared to “No Wagon Wheel” Scenario					$792,000

TABLE 3-4
SEWER CHARACTERISTICS

Sewer Segment	Upstream Manhole	Downstream Manhole	Pipe Length Feet	Existing Diameter Inches
1	ABT52	ABT53	114.18	10 inch
2	ABT53	ABT51	325.14	8 inch
3	ABT51	ABT21	352.1	8 inch
4	ABT54	ABT40	54.94	10 inch
5	ABT44	ABT43	158.76	10 inch
6	ABT43	ABT42	36.15	10 inch
7	ABT42	ABT41	243.72	10 inch
8	ABT41	ABT40	366.65	10 inch
9	ABT40	ABT39	340.46	10 inch
10	ABT39	ABT20	339.66	10 inch
11	ABT21	ABT20	399.25	8 inch
12	ABT20	ABT19	126.06	18 inch
13	ABT19	ABT100	86.84	12 inch
14	ABT100	ABT94	115.51	12 inch
15	ABT94	ABT93	350.28	12 inch
16	ABT93	ABT92	48.11	12 inch

Sewer Segment	Upstream Manhole	Downstream Manhole	Pipe Length Feet	Existing Diameter Inches
17	ABT92	ABT18	295.87	12 inch
18	ABT18	ABT17	346.79	12 inch
19	ABT17	ABT16	98.09	12 inch
20	ABT16	ABT15	275.52	12 inch
21	ABT15	ABT14	178.43	12 inch
22	ABT14	ABT13	307.18	12 inch
23	ABT13	ABT12	307.93	12 inch
24	ABT12	ABT11	319.63	12 inch
25	ABT11	ABT108	117.45	12 inch
26	ABT108	ABT109	107.57	12 inch
27	ABT109	ABT10	113.97	12 inch
28	ABT10	ABT09	365.87	12 inch
29	ABT09	ABT08	350.35	12 inch
30	ABT08	ABT110	148.77	12 inch
31	ABT110	ABT56	69.39	12 inch
32	ABT56	ABT07	153.98	12 inch
33	ABT07	ABT06	353.96	12 inch
34	ABT06	ABT70	230.47	12 inch
35	ABT70	ABT05	118.44	12 inch
36	ABT05	ABT04	357.62	12 inch
37	ABT04	ABT03	364.95	12 inch
38	ABT03	ABT02	117.68	12 inch
39	ABT02	ABT01	67.48	8 inch
40	ABT01	LS #23	15.44	15 inch
41	AB+62	AB+61	493.45	15 inch
42	AB+61	AB+60	182.31	15 inch
43	AB+60	AB+59	425.36	15 inch
44	AB+59	AB+58	425.79	15 inch
45	AB+58	AB+57	421.82	15 inch
46	AB+57	AB+56	327.32	15 inch
47	AB+56	AB+55	232.4	15 inch
48	AB+55	AB+54	56.06	15 inch
49	AB+54	AAA+080	26	18 inch
50	AAA+080	AAA+079	267	42 inch
51	AAA+079	AAA+078	250	42 inch
52	AAA+078	AAA+077	350	42 inch
53	AAA+077	AAA+076	289	42 inch

Section 4: Findings & Suggested Conditions

4.1 Findings and Recommendations

As an overview:

A. For wastewater, to accommodate the Wagon Wheel development, improvements in the downstream trunk sewer system are required, along with upgrading Lift Station 23. Both are considered in the updated Wastewater Master Plan. The lift station will be physically upgraded as part of the Casden Specific Plan or by the City.

B. Sufficient capacity exists at the Oxnard Wastewater Treatment Plant to accommodate the Wagon Wheel development.

C. It should be noted that there are other developments in the very early planning stages (and not considered in the current Master Plan in draft form) which may increase wastewater flows in the trunk sewers downstream of the Wagon Wheel Project. If that is the case, then the downstream improvements could vary from those presented in this report.

4.2 Suggested Conditions

<u>Wastewater:</u>

(a) The development shall connect all units and buildings having sewer facilities to the public sewer system.

(b) The developer shall be responsible for payment of the Wastewater Connection Fee based on the value of that fee at the time that payment is made, unless otherwise agreed to in writing with the City.

(c) The developer may be responsible for the costs involved with the City's providing capacity in downstream Trunk Sewers, i.e. system capacity increase and with the upgrading of Lift Station 23.

(d) The City shall be responsible for the downstream sewer and lift station improvements and occupancy for developer's units must await the completion of those projects. Should the City not be able to construct said improvements in a manner timely for the developer's project, then the City may consider having the developer install such improvements subject to a reimbursement agreement for those costs that are considered as a City responsibility.

(e) Existing City sewers that are within the development shall either: (1) be protected in-place within satisfactory easements (i.e. within public streets) with depth of cover meeting City requirements , or (2) shall be relocated to acceptable easement conditions with the existing lines abandoned in accordance with City standards.

(f) Lift stations within the development for sewer purposes aren’t approved for this project.