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MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
Carl P. Holm, AICP, Director

LAND USE & COMMUNITY DEVELOPMENT | PUBLIC WORKS & FACILITIES | PARKS
1441 Schilling Place, 2nd Floor (831)755-5025
Salinas, California 93901 www.co.monterey.ca.us/rma

NOTICE OF AVAILABILITY

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (DRAFT SEIR)

PROJECT TITLE: **RIVER VIEW AT LAS PALMAS ASSISTED LIVING SENIOR FACILITY (PLN150372; SCH # 2017031025)**

Notice is hereby given that the County of Monterey is seeking written comment on the Draft Subsequent Environmental Impact Report (Draft SEIR) on the River View at Las Palmas Assisted Living Senior Facility project (RMA-Planning File No. PLN150372; SCH # 2017031025) in accordance with the California Environmental Quality Act. The public review period will begin on March 12th and end on April 25th, 2018. This review period is established for the purpose of receiving written comments on the accuracy and adequacy of the Draft SEIR together with other information relative to the environmental effect of the project.

PROJECT LOCATION: **THE PROPERTY IS LOCATED AT THE END OF WOODRIDGE COURT, LAS PALMAS RANCH SUBDIVISION (ASSESSOR'S PARCEL NUMBER 139-211-035-000), SALINAS, TORO AREA PLAN.**

PROJECT DESCRIPTION:
The proposed project includes a Specific Plan Amendment, Use Permit, and Design Approval for the construction and operation of a senior assisted living facility and associated site improvements on an approximately 15.74-acre site at the location referenced above. The facility would consist of the following components:

- 13 "casitas" providing 26 units and up to 42 beds. The proposed structures are single-story and range in size from approximately 1,500 to 3,800 square feet. These units are intended to serve seniors who may require a moderate level of daily services, such as meals, maintenance and cleaning, and shuttle service. While services and assistance are available to occupants of these units, occupants may maintain a moderate degree of independence, such as preparing their own meals and operating their own vehicles.

- An approximately 43,400 square-foot, two-story assisted living facility consisting of 40 units and up to 52 beds. The assisted living facility would provide a wide range of assistance for seniors, including meals, medical assistance and transportation.

- An approximately 38,800 square-foot, three-level memory care facility serving seniors who require a full range of services and assistance. The memory care facility would include 39 units and up to 48 beds.

It is anticipated that the facility will have 92 employees when operating at maximum capacity, with shifts varying between 12 and 21 employees at any one time.

LEAD AGENCY: **COUNTY OF MONTEREY RESOURCE MANAGEMENT AGENCY - PLANNING**

ADDRESSES WHERE A COPY OF THE DRAFT SEIR IS AVAILABLE FOR REVIEW:

County of Monterey
RMA-Planning
1441 Schilling Place,
2nd Floor
Salinas, CA 93901
(831) 755-5025

Documents referenced in the Draft SEIR are available at Monterey County RMA-Planning at the address listed above.

PUBLIC REVIEW PERIOD: **MARCH 12 THROUGH APRIL 25, 2018**

POTENTIAL SIGNIFICANT ENVIRONMENTAL EFFECTS:
The DEIR identifies impacts in the following resource areas that are either less than significant or are significant but can be mitigated to a less than significant level: Aesthetics, Agricultural & Forest Resources, Air Quality, Biological Resources, Cultural Resources, Geology & Soils, Greenhouse Gas Emissions, Hazardous Materials, Surface Hydrology, Mineral Resources, Noise, Public Services, Recreation, Solid Waste, Wastewater, and Water Supply.

The DEIR identifies impacts in the following resource areas that are significant and cannot be mitigated to a less than significant level: Transportation

Public hearings will be held, subsequent to the public review period, at a time and place to be specified by legal advertisement in a local newspaper of general circulation. If you would like to be notified of the hearings or would like additional information please contact:

Joseph (Joe) Sidor, Associate Planner
Monterey County
Resource Management Agency – Planning
1441 Schilling Place, 2nd Floor
Salinas, CA 93901
Phone: (831) 755-5025
E-mail: sidorj@co.monterey.ca.us

We welcome your comments during the public review period. You may submit your comments in hard copy to the name and address above. The Agency also accepts comments via e-mail or facsimile but requests that you follow these instructions to ensure that the Agency has received your comments. To submit your comments by e-mail, please send a complete document including all attachments to: ceqacomments@co.monterey.ca.us

An e-mailed document should contain the name of the person or entity submitting the comments and contact information such as phone number, mailing address and/or e-mail address, and include any and all attachments referenced in the e-mail. To ensure a complete and accurate record, we request that you also provide a follow-up hard copy to the name and address listed above. If you do not wish to send a follow-up hard copy, then please send a second e-mail

requesting confirmation of receipt of comments with enough information to confirm that the entire document was received. If you do not receive e-mail confirmation of receipt of comments, then please submit a hard copy of your comments to ensure inclusion in the environmental record or contact the Agency to ensure the Agency has received your comments.

Facsimile (fax) copies will be accepted with a cover page describing the extent (e.g., number of pages) being transmitted. A faxed document must contain a signature and all attachments referenced therein. Faxed documents should be sent to the contact noted above at **(831) 757-9516**. To ensure a complete and accurate record, we request that you also provide a follow-up hard copy to the name and address listed above. If you do not wish to send a follow-up hard copy, then please contact the Agency to confirm that the entire document was received.

The Draft EIR is available on CD for purchase from Monterey County RMA-Planning at the above address. The documents are also available on the County website at: http://www.co.monterey.ca.us/government/departments-i-z/resource-management-agency/planning

Planning for Success.

DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

RIVER VIEW AT LAS PALMAS ASSISTED LIVING SENIOR FACILITY

STATE CLEARINGHOUSE # 2017031025

PREPARED FOR

River View at Las Palmas LLC

January 29, 2018

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM

301 Lighthouse Avenue Suite C Monterey California 93940 Tel 831-649-1799 Fax 831-649-8399
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1.0
Introduction

1.1 Purpose for Preparing the EIR

Monterey County, acting as the lead agency, has determined that the River View at Las Palmas Assisted Living Senior Facility (hereinafter "proposed project") could possibly result in significant adverse environmental impacts. After discussions with the County, the Project Applicants voluntarily offered to prepare an environmental impact report (EIR) to evaluate these possible significant adverse environmental impacts and to identify appropriate mitigations.

An Administrative Draft (ADEIR) was prepared by EMC Planning Group (EMC) and submitted to the County of Monterey, using available information from private and public sources noted herein, as well as information generated by EMC through field investigation.

Upon submittal of the ADEIR from EMC, Monterey County assumed control of the processing and content of the EIR and the subsequent EIR represents the independent judgment of Monterey County. This EIR has been prepared in compliance with the California Environmental Quality Act (CEQA) of 1970, as amended, to inform public decision makers and their constituents of the environmental impacts of the proposed project. In accordance with CEQA guidelines, this report describes both beneficial and adverse impacts generated by the proposed project and suggests measures for mitigating significant adverse environmental impacts resulting from the proposed project.

1.2 Methodology

General

This EIR has been prepared by Monterey County in accordance with CEQA and its implementing guidelines, using an interdisciplinary approach. The county has the discretionary authority to review and approve the proposed project. This EIR is an informational document that is intended to inform the decision makers and their constituents, as well as responsible and trustee agencies of the environmental impacts of the proposed project and to identify feasible mitigation measures that would avoid or reduce the severity of the impacts. The lead agency is required to consider the information contained in this EIR prior to taking any discretionary action to approve the proposed project.

This EIR has been prepared using available information from private and public sources noted herein, as well as information generated through field investigation by EMC Planning Group and other technical experts.

The purpose of an EIR is to identify a project's significant environmental effects, to indicate the manner in which those significant effects can be mitigated or avoided, and to identify alternatives to the proposed project.

An EIR is an objective public disclosure document that takes no position on the merits of the proposed project. Therefore, the findings of this EIR do not advocate a position "for" or "against" the proposed project. Instead, the EIR provides information on which decisions about the proposed project can be based. This EIR has been prepared according to professional standards and in conformance with legal requirements.

Subsequent EIR

In accordance with the Las Palmas Ranch Specific Plan (Chapter III, The Regulation Function, A. CEQA Compliance), this EIR is a subsequent EIR that is required for the project to explore mitigation alternatives in detail. The original Las Palmas Ranch Specific Plan and Final EIR are hereby incorporated by reference and are included in Appendix A of this EIR.

Emphasis

This draft EIR focuses on the significant effects on the environment in accordance with CEQA Guidelines section 15143. The significant effects are discussed with emphasis in proportion to their severity and probability of occurrence.

Forecasting

In accordance with CEQA Guidelines section 15144, preparing this draft EIR necessarily involved some degree of forecasting. While foreseeing the unforeseeable is not possible, the report preparers and technical experts used best available efforts to find out and disclose all information that reasonably and foreseeably can be disclosed.

Speculation

If, after thorough investigation, the report preparers in consultation with the lead agency determined that a particular impact is too speculative for evaluation, the conclusion is noted, and the rationale for how the conclusion was reached, and the issue is not discussed further (CEQA Guidelines section 15145).

Degree of Specificity

In accordance with CEQA Guidelines section 15146, the degree of specificity in this draft EIR corresponds to the degree of specificity involved in the proposed project. An EIR on a construction project will necessarily be more detailed in the specific effects of the project than

will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy. The proposed project is a construction project and therefore, the analysis in this draft EIR provides a high degree of specificity.

Technical Detail

The information contained in this draft EIR includes summarized technical data, maps, plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public, pursuant to CEQA Guidelines section 15147. Placement of highly technical and specialized analysis and data is included as appendices to the main body of the draft EIR. Appendices to this draft EIR are included on a CD on the inside, back cover.

Citation

In accordance with CEQA Guidelines section 15148, preparation of this draft EIR was dependent upon information from many sources, including engineering reports and scientific documents relating to environmental features. If the document was prepared specifically for the proposed project, the document is included in the technical appendices discussed above. Documents that were not prepared specifically for the proposed project, but contain information relevant to the environmental analysis of the proposed project, are cited but not included in this draft EIR. This draft EIR cites all documents used in its preparation including, where appropriate, the page and section number of any technical reports that were used as the basis for any statements in the draft EIR.

1.3 EIR PROCESS

There are several steps required in an EIR process. The major steps are briefly discussed below.

Notice of Preparation

CEQA Guidelines section 15082 describes the purpose, content and process for preparing, circulating and facilitating early public and public agency input on the scope of an EIR. CEQA Guidelines section 15375 defines a notice of preparation as:

> …a brief notice sent by the Lead Agency to notify the Responsible Agencies, Trustee Agencies, the Office of Planning and Research, and involved federal agencies that the Lead Agency plans to prepare an EIR for the project. The purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR.

A notice of preparation was prepared for the proposed project and circulated for 30 days March 7, 2017 to April 7, 2017, as required by CEQA. The notice of preparation, as well as comments received from agencies, organizations, and private individuals, are included in Appendix B.

Draft EIR

Contents

This EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency is required to consider the information in the EIR along with other information which may be presented to the agency. CEQA Guidelines Article 9 requires a draft EIR contain the following information:

- Table of Contents;
- Summary;
- Project Description;
- Environmental Setting;
- Consideration and Discussion of Environmental Impacts;
- Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects;
- Consideration and Discussion of Alternatives to the Proposed Project;
- Effects not found to be Significant;
- Organization and Persons Consulted; and
- Discussion of Cumulative Impacts.

The detailed contents of this draft EIR are outlined in the table of contents.

Public Review

This draft EIR will be circulated for a 45-day public review period. All comments addressing environmental issues received on the draft EIR will be addressed in the final EIR. CEQA Guidelines section 15024(a) states that in reviewing a draft EIR, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the

adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project.

CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters.

CEQA Guidelines section 15024(d) states that reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to section 15064, an effect shall not be considered significant in the absence of substantial evidence.

Final EIR

Contents

In accordance with CEQA Guidelines section 15132, the final EIR will provide the following:

- List of persons, organizations, and public agencies commenting on the draft EIR;
- Comments received on the draft EIR;
- Responses to significant environmental points raised in comments; and
- Revisions that may be necessary to the draft EIR based upon the comments and responses.

According to CEQA Guidelines section 15024(a), when responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR. The final EIR and the draft EIR will constitute the entire EIR.

Certification

CEQA Guidelines section 15088 requires the lead agency to provide a written proposed response to a public agency on comments made by that public agency at least 10 days prior to certifying an EIR.

CEQA Guidelines section 15090 requires lead agencies to certify the final EIR prior to approving a project. The lead agency shall certify that the final EIR has been completed in compliance with CEQA, the final EIR was presented to the decision-making body of the lead agency and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project, and that the final EIR reflects the lead agency's independent judgment and analysis.

1.4 TERMINOLOGY

Characterization of Impacts

This EIR uses the following terminology to denote the significance of environmental impacts.

No Impact

"No impact" means that no change from existing conditions is expected to occur.

Adverse Impact

A "less-than-significant impact" is an adverse impact, but would not cause a substantial adverse change in the physical environment, and no mitigation is required.

A "significant impact" or "potentially significant impact" would, or would potentially, cause a substantial adverse change in the physical environment, and mitigation is required.

A "less-than-significant impact with implementation of mitigation measures" means that the impact would cause no substantial adverse change in the physical environment if identified mitigation measures are implemented.

A "significant and unavoidable impact" would cause a substantial change in the physical environment and cannot be avoided if the project is implemented; mitigation may be recommended, but will not reduce the impact to less-than-significant levels.

Beneficial Impact

A "beneficial impact" is an impact that would result in a decrease in existing adverse conditions in the physical environment if the project is implemented.

Abbreviations and Acronyms

Numerous acronyms are used in this EIR. The following list is provided as a quick reference to assist readers.

AB	Assembly Bill
ADA	Americans with Disabilities Act
AF	Acre-feet
AFY	Acre-feet per year
AMBAG	Association of Monterey Bay Area Governments
BMPs	Best Management Practices
CalEEMod	California Emissions Estimator Model

CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historic Places
CRLF	California Red-legged Frog
CTS	California Tiger Salamander
CUPA	Certified Unified Program Agencies
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EMFAC	Emission Factors Modeling Program
EMS	Emergency Medical Services
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRMS	Flood Insurance Rate Map
GCC	Global Climate Change
GHG	Greenhouse Gas Emissions
HazMat	Hazardous Materials
LAFCO	Local Agency Formation Commission
LOS	Level of Service
MBTA	Migratory Bird Treaty Act

MGD	Million Gallons per Day
MMT	Million Metric Tons
MT	Metric Tons
MWh	Megawatt Hours
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit
OCEN	Ohlone/Costanoan-Esselen Nation
PCBMPs	Post-Construction Best Management Practices
PG&E	Pacific Gas and Electric Company
RoadMod	Road Construction Emissions Model
RPS	California Renewable Portfolio Standard Program
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act
SR	California State Route
SVGB	Salinas Valley Groundwater Basin
SWDS	Storm Water Design Standards
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Program
SWRCB	State Water Resources Control Board
TAMC	Transportation Agency for Monterey County
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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2.0
Summary

CEQA Guidelines section 15123 requires an EIR to contain a brief summary of the proposed project and its consequences. The summary identifies each significant effect and the proposed mitigation measures and alternatives to reduce or avoid that effect; areas of controversy known to the lead agency; and issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

2.1 PROPOSED PROJECT SUMMARY

Location and Setting

The project site is an undeveloped 15.64-acre parcel located within the Toro Area Plan and the Las Palmas Ranch Specific Plan, approximately 0.5 miles southeast of the intersection of River Road and State Route 68. Surrounding land uses include residential development to the east and southeast, undeveloped residentially-designated property to the west, resource conservation (open space) that was established as part of the development of Las Palmas Ranch to the south, and cultivated farmland across River Road to the north. .

General Plan and Zoning

The 2010 Monterey County General Plan and 2010 Toro Area Plan (the Toro Area Plan is included in the General Plan) land use designation for the site is Medium Density Residential, 2.61 units/acre. The zoning, consistent with the 2010 Monterey County General Plan and 2010 Toro Area Plan for the site is Medium Density Residential, 2.61 units per acre, with a Design Control Overlay (MDR/2.61D).

The current zoning and land use pattern was established in the Las Palmas Ranch Specific Plan and incorporated into the 1986 Toro Area Plan, and subsequently into the 2010 Monterey Country General Plan and 2010 Toro Area Plan.

Project Description

The proposed project includes a Specific Plan amendment, use permit, and design approval for the construction and operation of an approximately 120,000 square-foot (including non-living space, such as garages, in the “casitas” units) senior assisted living facility consisting of multiple structures and associated site improvements on an approximately 15.64-acre site. The facility would provide assisted living facilities for seniors requiring varying levels of assistance.

2.2 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

This draft EIR identifies significant or potentially significant environmental impacts in several areas as identified below. The impacts are presented in a summarized format in Table S-1, with the full text of the mitigation measure. The full text of the environmental setting, project analysis, and impacts and the mitigation measures can be found with Sections 5.0 through 16.0.

Significant Project Impacts

Project-level significant impacts are anticipated in the following areas:

- Aesthetics (impact to scenic vistas; introduction of light and glare);
- Air Quality (air pollutant emissions);
- Biological Resources (impacts to special-status animal species; impacts to nesting birds);
- Transportation & Traffic (impact to intersections); and
- Transportation & Traffic (impact to SR 68).

Significant Cumulative Effects

Significant cumulative impacts are anticipated in the following areas:

- Transportation & Traffic (impact to intersections); and
- Transportation & Traffic (impact to SR 68).

Significant Unavoidable Impacts

Significant unavoidable impacts are anticipated in the following areas:

- Transportation & Traffic (project level impact to SR 68); and
- Transportation & Traffic (cumulative level impact to SR 68).

Growth Inducting Effects

The subject parcel is the last remaining undeveloped property in the Las Palmas Specific Plan with a residential land use designation. Since the remainder of the Las Palmas Specific Plan has been built-out since the 1990s, the proposed project would not be population-inducing and would be consistent with General Plan and zoning designations for the site. Therefore, the project would not have growth inducing effects.

2.3 AREAS OF KNOWN CONTROVERSY

CEQA Guidelines section 15123(b)(2) requires an EIR summary to identify areas of controversy known to the lead agency including issues raised by agencies and the public. The lead agency is aware of potential controversy regarding an increase in traffic on the local

Table 2-1 Significant Impacts and Mitigation Measure Summary

Area of Concern	Significant Impact	Mitigation #	Mitigation Measure Summary	Residual Impact
Aesthetics	Altering existing scenic vistas and visual character of project site.	AES-1	The applicant shall prepare and submit a landscape plan to enhance screening from State Route 68, River Road, Reservation Road, and the adjacent neighborhood and trail.	Less than Significant
Aesthetics	Altering existing scenic vistas and visual character of project site.	AES-2	The applicant shall submit a final plan for colors and materials used for the buildings, which shall be earth toned to blend with the existing vicinity landscape.	Less than Significant
Aesthetics	Altering existing scenic vistas and visual character of project site.	AES-3	The applicant's final improvement plans shall include construction of all new utility and distribution lines on the project site underground.	Less than Significant
Aesthetics	Introduce new sources of light and glare.	AES-4	The applicant shall prepare and submit a lighting plan for the project site.	Less than Significant
Air Quality	Generate construction emissions.	AQ-1	The applicant shall prepare a grading plan with dust control measures for the project site.	Less than Significant
Air Quality	Generate construction emissions.	AQ-2	A construction foreman shall be designated to ensure dust control measures are implemented.	Less than Significant
Air Quality	Expose sensitive receptors to construction dust and diesel exhaust emissions.	AQ-3	All off-road construction vehicles and all construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications	Less than Significant
Air Quality	Expose sensitive receptors to new sources of toxic air contaminants.	AQ-3	"	
Biological Resources	Potential loss or disturbance of American badger.	BIO-1	Conduct pre-construction surveys.	Less than Significant
Biological Resources	Potential loss or disturbance of burrowing owl.	BIO-2	Conduct pre-construction surveys.	Less than Significant
Biological Resources	Potential loss or disturbance of Monterey dusky-footed woodrat.	BIO-3	Conduct pre-construction surveys.	Less than Significant

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Area of Concern	Significant Impact	Mitigation #	Mitigation Measure Summary	Residual Impact
Biological Resources	Potential loss or disturbance of western red bat.	BIO-4	Conduct pre-construction surveys.	Less than Significant
Biological Resources	Potential loss or disturbances of nesting birds.	BIO-5	Conduct pre-construction surveys.	Less than Significant
Transportation & Traffic	Add vehicle trips to SR 68.	TRA-1	Schedule shift changes outside morning and evening peak hours.	Significant
		TRA-2	Development shuttle service program.	Significant
Transportation & Traffic (Cumulative)	Add cumulative vehicle trips to vicinity intersections.	CTRA-1	Pay TAMC and Monterey County traffic impact fees.	Less than Significant
Transportation & Traffic (Cumulative)	Add cumulative vehicle trips to SR 68.	TRA-1, TRA-2, CTRA-1	"	Significant
Energy	Increased energy consumption.	ENG-1	Demonstrate how the project is consistent with the energy conservation policies of the Las Palmas Ranch Specific Plan.	Less than Significant

roadway system. Other potential issues were raised by two members of the public (adjoining residents) during the project's NOP process. No issues were raised by other local, state or federal agencies. The only comment letter received from a state agency was from the California Department of Transportation (Caltrans). Letters are included in Appendix A, Notice of Preparation and Responses.

2.4 SUMMARY OF ALTERNATIVES

Project alternatives are presented, discussed, analyzed, and compared in Section 17.0, Alternatives.

The following project alternatives were analyzed:

1. Alternative 1: No project/no development;
2. Alternative 2: No project/minimum use;
3. Alternative 3: No project/existing zoning; and
4. Alternative 4: Reduced project.

Alternative 1: No Project/No Development

The "no project/no development" alternative assumes no development would occur on the project site. The project site would continue to be vacant land, partially used for grazing.

Alternative 2: No Project/Minimum Use

The "no project/minimum use" alternative assumes the proposed project would not be constructed or operated on the project site. Instead, this alternative considers the construction of the minimum allowable use on the subject property, which would be one single family dwelling and any accessory structures considered incidental to residential use, such as barns and storage buildings.

Alternative 3: No Project/Existing Zoning

The "no project/existing zoning" alternative assumes the proposed project would not be constructed or operated on the project site. However, considering that the project site is designated for medium density residential development at up to 2.61 units/acre, it is feasible that up to 40 dwelling units could be approved and constructed on the project site. It is also worth noting that types of uses could be considered for this alternative. Based on existing zoning for the project site, the following uses could be established on the project site through the approval of the appropriate permits:

- Public and quasi-public uses including churches, cemeteries, parks, playgrounds, schools, public safety facility, public utility facilities;
- Mobile home park;
- Agricultural employee housing;
- Christmas tree cutting and removal and other uses of similar agricultural nature;

- Other uses of a similar nature, density and intensity;
- Transitional Housing; or
- Supportive Housing.

Alternative 4: Reduced Project

The "reduced project" alternative includes a reduced development footprint. For conceptual purposes, Alternative 4 eliminates the casitas from the proposed project. This would result in the loss of 26 living units with 42 beds, representing 30 percent of the total beds of the proposed project, and would result in a proportionate reduction in environmental impacts. Therefore, under this reduced project scenario, development on the project site would include the assisted living facility and memory care living facility, and other associated site improvements.

2.5 COMPARISON OF ALTERNATIVES

The no project/no development alternative would result in no potential adverse environmental impacts, but would not meet any of the proposed project objectives. The no project/minimum development alternative would result in less environmental impacts than the proposed project, but would not meet any of the proposed project's objectives. The no project/existing zoning alternative would result in a similar level of impacts as the proposed project; however, and would not meet the objectives of the proposed project. The reduced project would have an overall reduction in intensity of potential impacts based on the overall reduction in development on the project site, but the reduced project alternative would only partially meet the objectives of the proposed project and may prove to be economically infeasible. Therefore, the environmentally superior alternative that would partially meet the objectives of the proposed project would be the reduced project alternative.

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3.0
Environmental Setting

3.1 Project Site and Vicinity Setting

Project Location

The project site is located along River Road between the cities of Monterey and Salinas, within the unincorporated area of Monterey County. The location of the project site is illustrated in Figure 3-1, Project Location. Surrounding land uses include row crop production to the north across River Road, areas of the Ferrini Ranch development that will be maintained in open space, limited residential uses, and a future winery to the south and west, and areas of the Las Palmas Ranch #1 subdivision of single family dwellings to the east.

Project Site Setting

The project site is a 15.64-acre lot created as part of the Las Palmas Subdivision #1. The site is located within the boundary of the Las Palmas Ranch Specific Plan. The Las Palmas Ranch Specific Plan designated the property Medium Density Residential in 1983. That designation continues through the Monterey County 2010 General Plan and 2010 Toro Area Plan. The property is currently zoned "MDR/2.61-D" (Medium Density Residential, 2.61 units per acre; Design Control).

The project site is a knoll rising above River Road and the existing Las Palmas Subdivision #1 neighborhood to a largely flat plateau that would be the primary development area. Existing site improvements consist of an existing graded dirt driveway off of Woodridge Court at the southeasterly corner of the site, storm drain inlet pipe and electrical vaults at the southeasterly property corner, two cribwall-type retaining walls near the westerly end of the access drive, and a reclaimed water irrigation distribution system. The site is characterized by non-native grasses and numerous mature non-native eucalyptus trees. There is no current active use of the project site, although a small portion of the southwest corner is occasionally grazed. Site elevations range from approximately 70 feet above sea level in the northeastern area of the project site to 210 feet above sea level in the southwestern area of the project site. Slopes on the project site are 0-30% and 30-50% slope. Figure 3-2, Aerial Photograph, presents the project site characteristics. Figure 3-3, Surrounding Uses, presents the project site's surrounding uses. Figure 3-4, Project Site Photos, presents photographs of the existing setting at the project site.

3.2 BASELINE CONDITIONS

The project site is undeveloped and there is no current use of the site aside from a portion used for occasional grazing. This is the baseline condition of the project site as considered by this EIR. However, the Las Palmas Ranch Specific Plan designated the property for medium density residential. That designation continues through the Monterey County 2010 General Plan and 2010 Toro Area Plan. The Las Palmas Ranch Specific Plan EIR previously evaluated potential impacts of development of the Specific Plan area, including the project site. While not the CEQA baseline to determine the potential environmental impacts of this project, individual and cumulative impacts should also be viewed in the context of the level of development and associated impacts of the specific plan.

3.3 REGIONAL SETTING

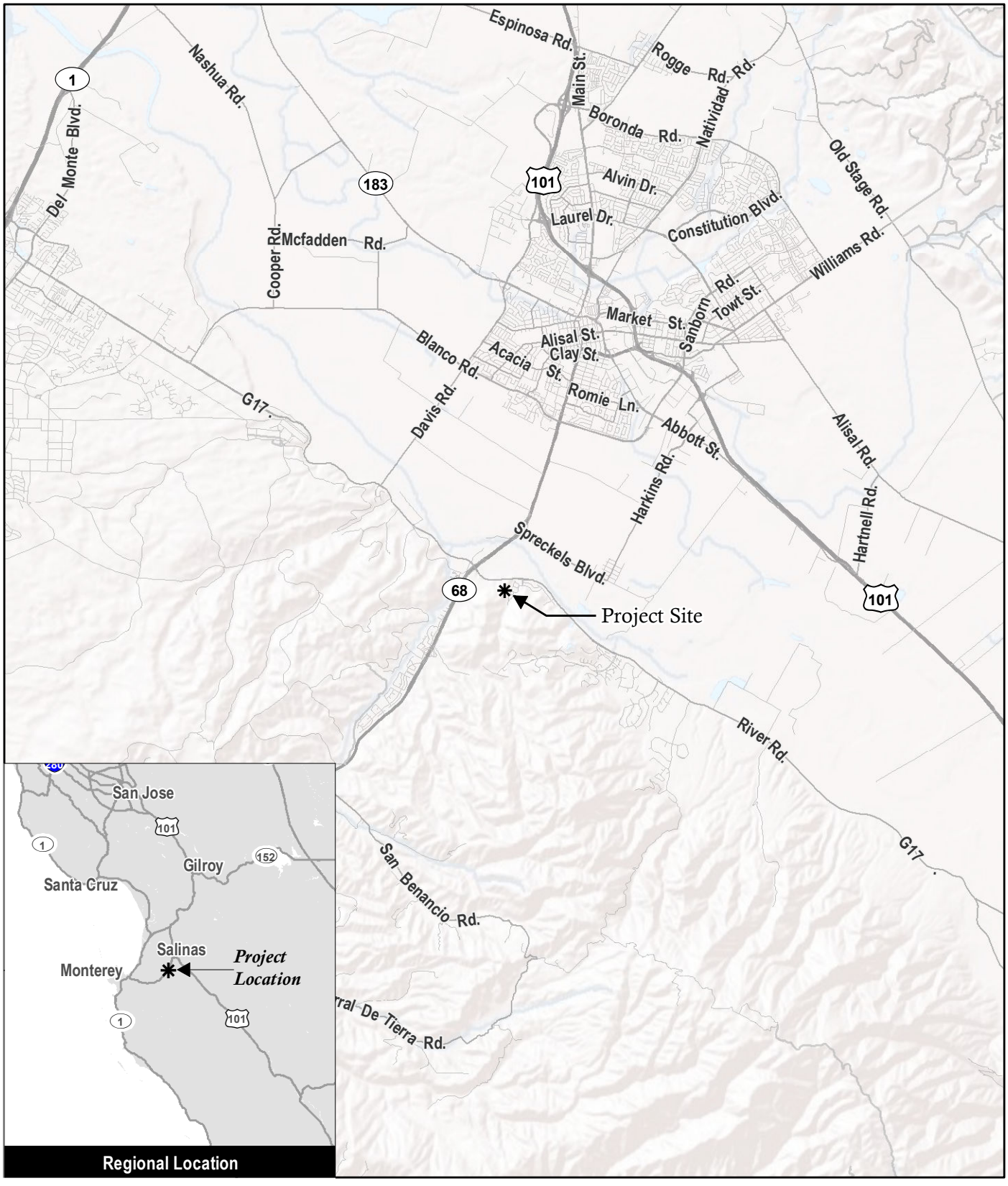
The regional setting discussion is taken from the Monterey County 2010 General Plan and 2010 Toro Area Plan.

Geography

The project site is located in the Toro Planning Area in the north central area of unincorporated Monterey County, south of the city of Salinas and east of the Monterey Peninsula. The planning area is comprised of approximately 74 square miles and is dominated by the mountains and rolling hills of the Sierra de Salinas Range. Mount Toro, with an elevation of 3,560 feet, is the highest peak in the range and is located on the southern boundary of the planning area. The terrain of the planning area varies greatly and is composed primarily of rolling hills and valleys. Elevations within the planning area range from approximately 40 feet above sea level to 3,560 feet above sea level. Topography in the planning area includes steep ravines with slopes exceeding 75 percent, a large amount of hillsides with slopes exceeding 30 percent, canyon floor and ridgelines with moderate slopes, and the flat floodplains along the Salinas River.

Soils and Slope

A wide variety of soils are present in the planning area. The characteristics of the soils and the slope of the land are significant determinants of the appropriate land uses for a specific area. Some of the soils, due to their composition, drainage, and gentle slope, are suitable for either agricultural use or urban use. Such soils are found along River Road, State Route 68, and in some of the Corral de Tierra/San Benancio area. Other soils pose severe limitations to the agricultural or urban use of the land. Rugged areas along Laureles Grade Road, in the south and central portions of the planning area, and on the east slopes of the Sierras de Salinas have soils that limit the development and use of the properties .



Source: Esri 2017

Figure 3-1

Project Location

River View at Las Palmas Senior Living Community Project Draft EIR

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0 300 feet

Project Site

Source: Monterey County GIS 2016, Google Earth 2017

Figure 3-2

Aerial Photograph

River View at Las Palmas Senior Living Community Project Draft EIR

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Source: Monterey County GIS 2016, Google Earth 2017

Figure 3-3

Surrounding Uses

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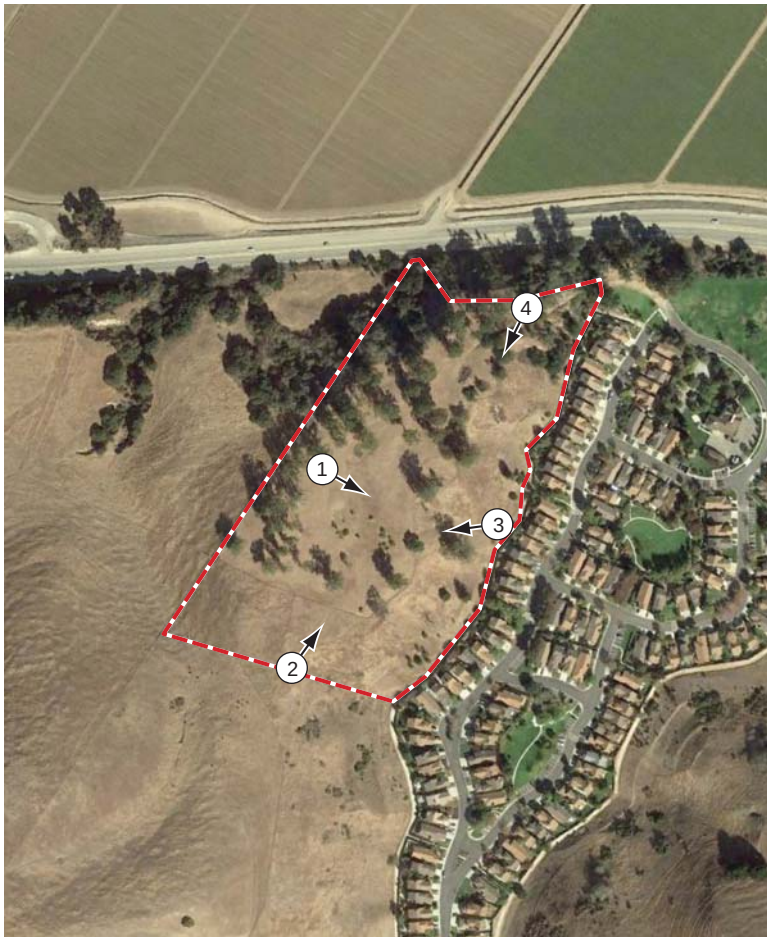
1 Southern view from the north area of the project site



3 Western view from the east area of the project site

2 Eastern view from the west area of the project site

Project Site

Source: Google Earth 2017
Photographs: EMC Planning Group 2016

4 Northern view from the south area of the project site

Figure 3-4
Site Photos

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Farmlands

The USDA Soil Conservation Service has developed and adopted a system for categorizing important farmlands for California and the rest of the nation. The system distinguishes four categories of farmlands, each with specific criteria. The categories are "prime farmlands," "farmlands of statewide importance," "unique farmlands," and "farmlands of local importance." All farmlands in the Toro planning area qualifying as prime farmlands and farmlands of statewide importance are located along River Road and the Salinas River. These lands are among Monterey County's most productive. The planning area also contains farmlands of local importance. The project site is designated “grazing land” by the Soil Conservation Service and, therefore, is not considered important farmland.

Water Resources

Water resources of the planning area are divided between two watersheds. One is within the El Toro Basin and encompasses 32 square miles of the 74 square miles of the planning area. The other is within a portion of the large Salinas River Basin. Surface water is a very limited resource in the planning area. The Salinas River is the only river or stream in the planning area that flows year-round. El Toro Creek flows only seasonally. There are no sizable reservoirs in the planning area. The flow of the Salinas River is controlled by the monitored release of water from the San Antonio and Nacimiento reservoirs, located over 70 miles to the south.

Groundwater resources within the planning area vary greatly from one area to another. There are differences in water quality, storage capacity of the aquifers, and hydraulic properties. These differences arise primarily from the variations in underlying geologic formations.

Vegetation and Wildlife

There are four general vegetation communities present in in the Toro planning area: grasslands, chaparral, woodlands, and riparian. Of the four communities, grasslands and woodlands predominate. Dry soils such as those on steep or south-facing slopes, on ridgetops, or in dry hot valleys support grassland vegetation, as do soils in areas which have been heavily grazed.

Scattered among the slopes of the planning area are chaparral plant communities of hard woody evergreen shrubs. The grasslands and chaparral both present a high fire risk, particularly on the steeper slopes and during the dry season. The woodlands of the planning area are dominated by evergreen oak communities, and are generally found on the north and east facing slopes, and in the valleys. Riparian vegetation is limited in the planning area and is found adjacent to the Salinas River and El Toro Creek.

The vegetation in the planning area is highly valued for its scenic qualities, recreational opportunities, and its role in watershed and soil management. Just as important, however, is its role of providing habitat for wildlife. A diversity of birds and animals find food, shelter, and cover in the planning area's various vegetation communities.

Vegetation on the project site consists of non-native grasslands, non-native Eucalyptus trees, non-native Monterey cypresses, and native coast live oak trees. Most of the site supports non-native grassland with various shrubs also present.

Environmentally Sensitive Areas – Toro Planning Area

The following plant species have been identified as environmentally sensitive habitats within the Toro Planning Area. The rare and endangered Hutchinson's delphinium (*Delphinium hutchinsonae*), Carmel Valley bush-mallow (*Malacothamnus palmeri, involucratus*) and Monterey manzanita (*Arctostaphylos montereyensis*) have been identified in the planning area. The rare but not endangered plant, the Monterey Ceanothus (*Ceanothus rigidus*), is also located in the planning area. The California Natural Areas Coordinating Council has designated Toro Regional Park as an area of unique research, education, and recreation value because of its oak woodlands, chaparral communities, and relatively undisturbed site.

Archaeological resources are also sensitive to man's activities but information is scarce regarding where these resources are located. Using the information available and applying the various topographic characteristics most often associated with such sites, Monterey County has delineated three archaeological sensitivity zones: low, moderate, and high, which indicate the relative probability of an archaeologically sensitive site being present. Within the planning area, there is one section of high archaeological sensitivity located southeast of State Route 68 in the Corral de Tierra area. The area located north of River Road is in the low sensitivity zone and the remainder of planning area has been designated as having a moderate chance of containing areas of archaeological importance.

3.4 Consistency with Applicable Plans

In accordance with CEQA Guidelines section 15125(d), this section identifies and discusses inconsistencies between the proposed project and applicable general plans, specific plans, and regional plans.

The proposed project was evaluated for consistency with the Monterey County General Plan, Toro Area Plan, and Las Palmas Specific Plan in the relevant sections of this draft EIR.

Table 3-1 Policy Consistency Review (Las Palmas Ranch Specific Plan, Monterey County 2010 General Plan, Toro Area Plan)

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4.0
Project Description

4.1 PROJECT OBJECTIVES

The objectives of the proposed project, provided by the applicant, are:

- To develop a state of the art facility to provide a Continuum of Care Residential Community designed to provide care to seniors over the age of 55 and to persons with diminishing mental capacity due to Alzheimer's, dementia, or similar causes.
- To provide a range of care options for persons who do not require 24-hour skilled nursing care but are in need of a range of personal assistance with the activities of daily living such as dressing, bathing, grooming, and medication management.
- To provide a range of accommodations which will allow persons who only need some help to maintain a modicum of an independent lifestyle to move into smaller home-like suites and then transition to other on site facilities which can provide a greater level of daily personal assistance as needed.
- To provide such a facility in a geographic location where the need for such a facility is clearly needed and where adequate public facilities currently exist or can be readily provided.
- To provide such a facility in and near an established community so that residents in the facility can feel a sense of connection with local residents and where in turn local residents as they age or their circumstances change can relocate to an assisted living facility without the need to move from their community or far away from their families.
- To provide a range of job and volunteer opportunities for persons in the area and in the Las Palmas community.
- Be licensed by the State of California as a Residential Care Facility for the Elderly (RCFE).

4.2 PROJECT CHARACTERISTICS

River View at Las Palmas Senior Living Community (the proposed project) is designed to provide a range of assisted care to seniors over the age of 55 and to persons with diminishing mental capacity due to Alzheimer's, dementia, or similar causes. The entire facility would be licensed by the State of California as a Residential Care Facility for the Elderly.

The community is designed for residents who do not require 24-hour skilled nursing care, but are frail and require personal assistance with activities of daily living such as dressing, bathing, grooming, and medication management. This setting allows residents who are experiencing difficulty with maintaining totally independent lifestyles to move into smaller, home-like suites where they can receive daily personal assistance as needed.

General assisted living communities provide the following services:

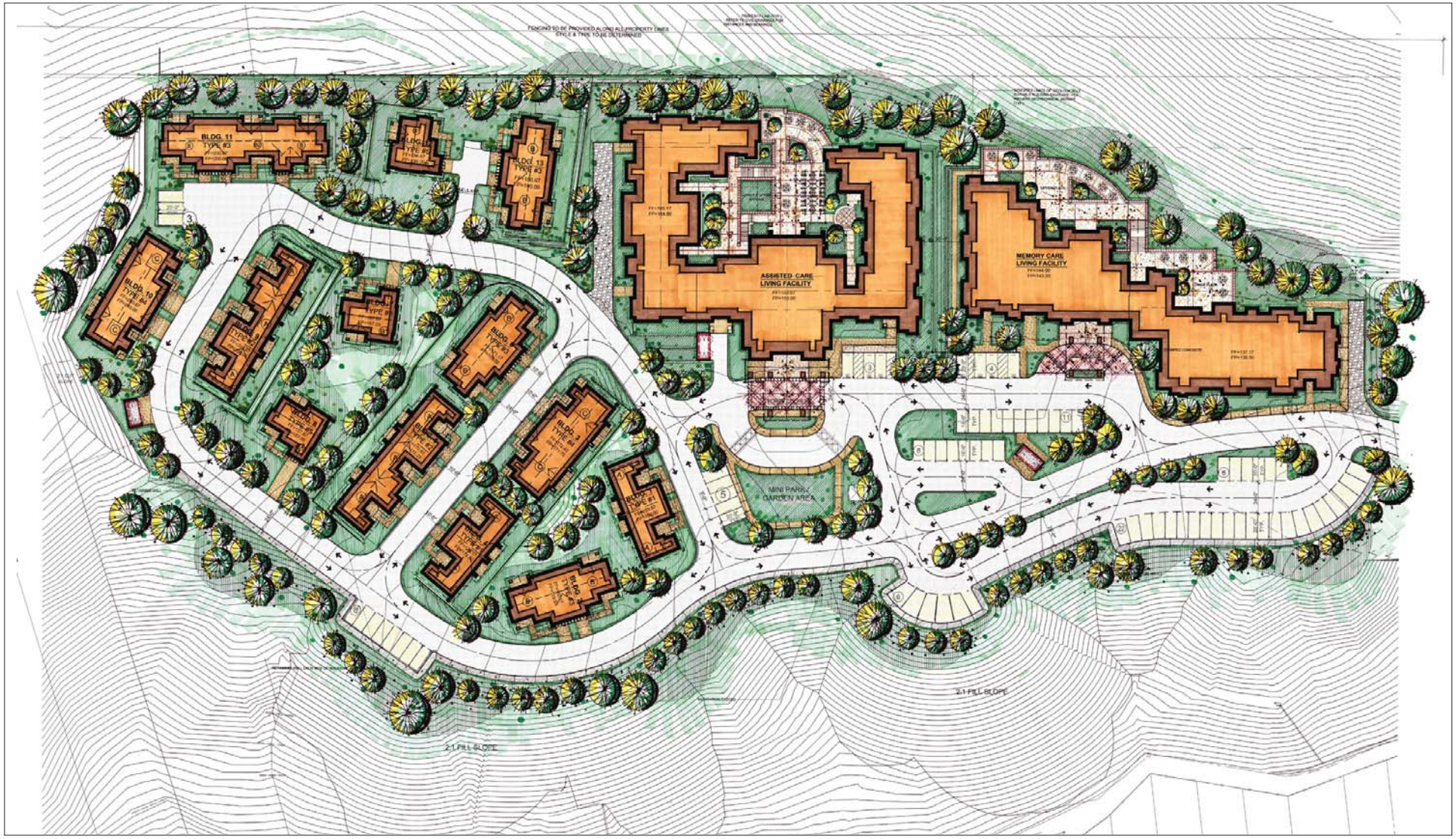
- monitoring of medication;
- approximately twice a week bathing assistance;
- assistance with dressing and grooming;
- 24-hour per day supervision and security;
- one to three meals per day in one of two communal dining rooms or in their units, depending on their condition and mobility;
- full linen and personal laundry service, if desired;
- weekly housekeeping/maid service;
- daily bed making, if needed;
- activity program five days a week;
- scheduled transportation to doctor appointments;
- ambulating;
- phone use;
- transferring; and
- assistance with toileting.

Project Facilities

The senior community would be comprised of three levels of residence, each with their own level of assistance: Casitas, Assisted Living Facility, and Memory Care Facility. Figure 4-1, Site Plan, displays the layout of the proposed project.

Casitas

Casitas are designed specifically for seniors who may require varying levels of assistance in their basic living needs. One meal a day, shuttle service, maintenance and cleaning will be included in the residential agreement for each Casitas resident. Although Casitas residents may maintain some independence in their life style, including the option of fixing their own meals and keeping their vehicles, a full range of assisted living services will be available to them.



0 100 feet

Source: R.L. Davidson 2015

Figure 4-1
Site Plan

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There are 13 Casitas structures providing 26 separate units (referred to as A, B or C units) with a total of 42 beds. The Casitas structures are all single stories, approximately 18 feet in height, and range in size from 1,513 to 3,757 square feet. The unit breakdown is:

- "A" units: There will be a total of 10 "A" units. "A" units are 893 square feet, and include 1 bedroom, 1 bath, kitchen, patio and 1 car garage. Figure 4-2, A Unit Casitas, presents the proposed exterior appearance and a layout of these units.
- "B" units: There will be a total of 12 "B" units. "B" units are 1,138 square feet, 2 bedroom, 2 bath, kitchen, patio and 1 car garage. Figure 4-3, B Unit Casitas, presents the proposed exterior appearance and a layout of these units.
- "C" units: There will be a total of 4 "C" units. "C" units are 1,307 square feet, 2 bedroom, 2 bath, kitchen, study, patio and 2 car garage. Figure 4-4, C Unit Casitas, presents the proposed exterior appearance and a layout of these units.

The Casitas provide 30 garage stalls and 16 open parking stalls. Total coverage for the 13 structures is approximately 37,700 square feet.

Assisted Living Facility

The assisted living facility is designed specifically for seniors who may need a full range of assistance to meet their living needs. A full range of services including meals, medical assistance, transportation, cleaning and laundry service is available for each resident.

The assisted living facility is a two-level structure approximately 28 feet in height and will cover about 27,000 square feet. The assisted living facility includes 40 living units ranging from 360 to 587 square feet and a total of 52 beds. The exterior elevations of the assisted living facility are displayed in Figure 4-5, Assisted Care Facility. The unit breakdown is:

- "A" units (19 units): "A" units are 413 square feet and include 1 bedroom and 1 bath. No kitchen or cooking facilities are included in the A units.
- Studio units (9 units): Studio units range from 360-394 square feet and include a combined living room/bedroom and a bathroom. No kitchen or cooking facilities are included in the Studio units.
- Companion units (12 units): Companion units range from 527-587 square feet. Each unit contains 2 living room/bedroom areas, some with their own bathroom, others have shared bathrooms. No kitchen or cooking facilities are included in the Companion units.

The assisted living facility includes a reception area, lobby, activity/exercise/arts and craft/hobby rooms, theatre, residents' business center, self-operated laundry and other common areas, outdoor plazas staff offices and nurses' offices. The lobby is flanked by two fireplaces and stairways, with multiple conversation areas in the lobby as well as throughout the two floors. A small "bistro" and a library are located on the upper level, with both a

grand dining hall and a private dining room. The building is serviced by a larger elevator for residents and a smaller one for food supply transfer. Residents can take all their meals in the dining room but can arrange for meals to be delivered to their rooms. Staff have lounge and break facilities as well. A 28-space parking lot is provided for staff and visitors.

Memory Care Facility

The memory care facility is designed specifically for persons who, due to diminished mental capacity, need full range of assistance to meet their living needs. All meals, medical assistance, transportation, cleaning and laundry service are available for each resident. The memory care facility is a three-level structure approximately 30 feet in height and will cover about 21,600 square feet. The memory care facility includes 39 living units ranging from 313 to 453 square feet and a total of 48 beds. The exterior elevations of the memory care facility are displayed in Figure 4-6, Memory Care Facility. The unit breakdown is:

- Studio units (30 units): Studio units range from 313-368 square feet and include a combined living room/bedroom and a bathroom. No kitchen or cooking facilities are included in the Studio units.
- Companion units (9 units): Companion units are up to 453 square feet in area. Each unit contains 2 living room/bedroom areas and 1 bathroom. No kitchen or cooking facilities are included in the Companion units.

The memory care facility includes a reception area, lobby, cafe, resident lounges and sitting rooms, and other common areas, outdoor plazas, kitchen and resident dining and private dining rooms, staff offices and lounges and a nurses' office. The building is serviced by two residents' elevators. A 32-space parking lot is provided for staff and visitors.

Total Site Coverage

Total site coverage is approximately 190,000 square feet (27.6 percent of the project site) and is comprised of:

- Casitas - 41,341 square feet (6 percent);
- Assisted Living – 27,052 square feet (4 percent);
- Memory Care – 21,613 square feet (3 percent); and
- Roads, driveways, parking – 99,523 square feet (14.6 percent).

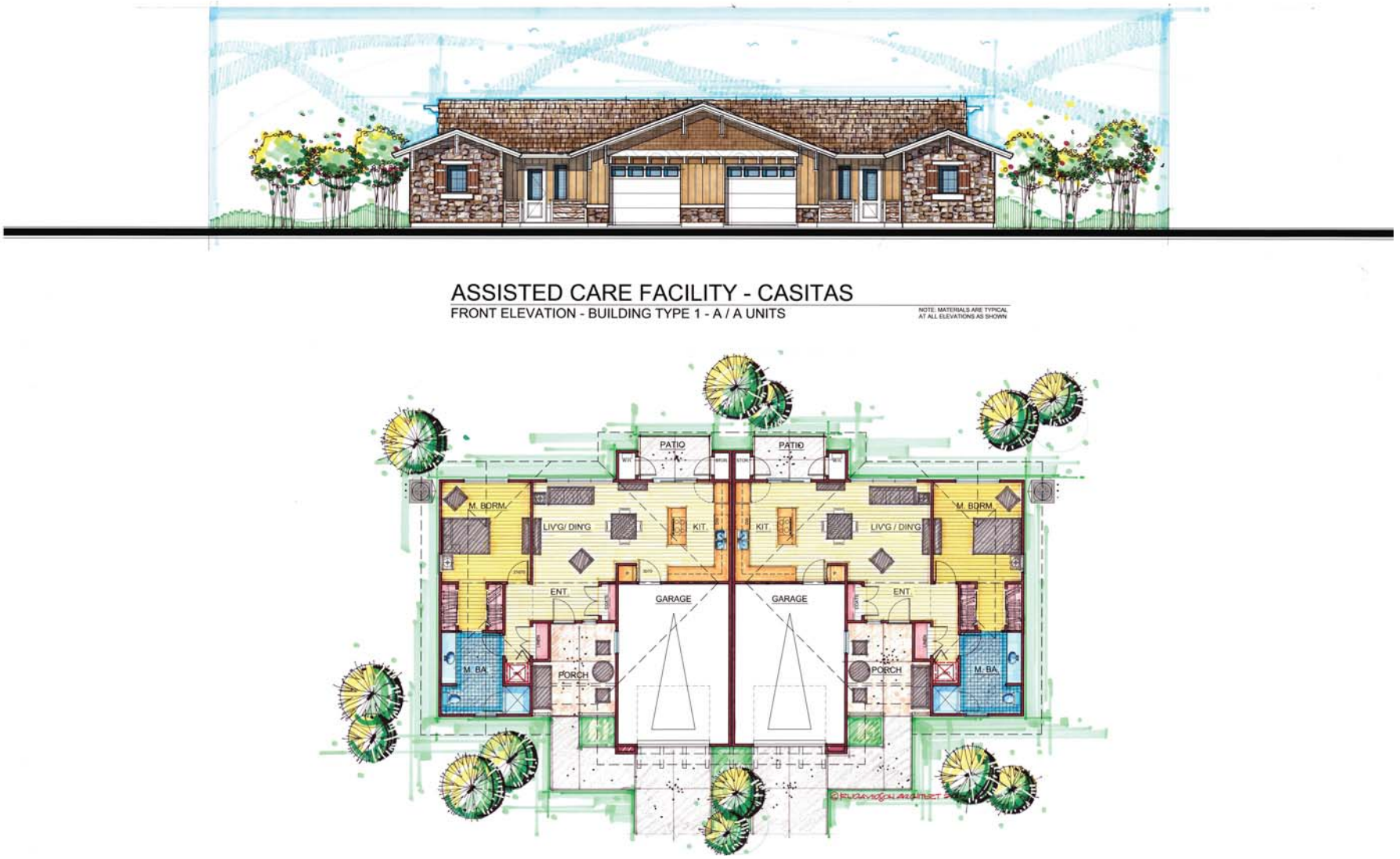
The total floor area, including casitas units, is approximately 110,085 square feet.

Site Access

River Road provides the northern boundary of the property. There is no direct access from River Road and none is proposed. Access to the site is from the signalized intersection at

River Road and Las Palmas Road to River Run, then Woodridge Court. River Road is a public road maintained by the County of Monterey. Las Palmas Road, River Run and Woodridge Court are private roads maintained by the Las Palmas Ranch Home Owners

Figure 4-2 A Unit Casitas



Source: R.L. Davidson 2015

Figure 4-2
A Unit Casitas

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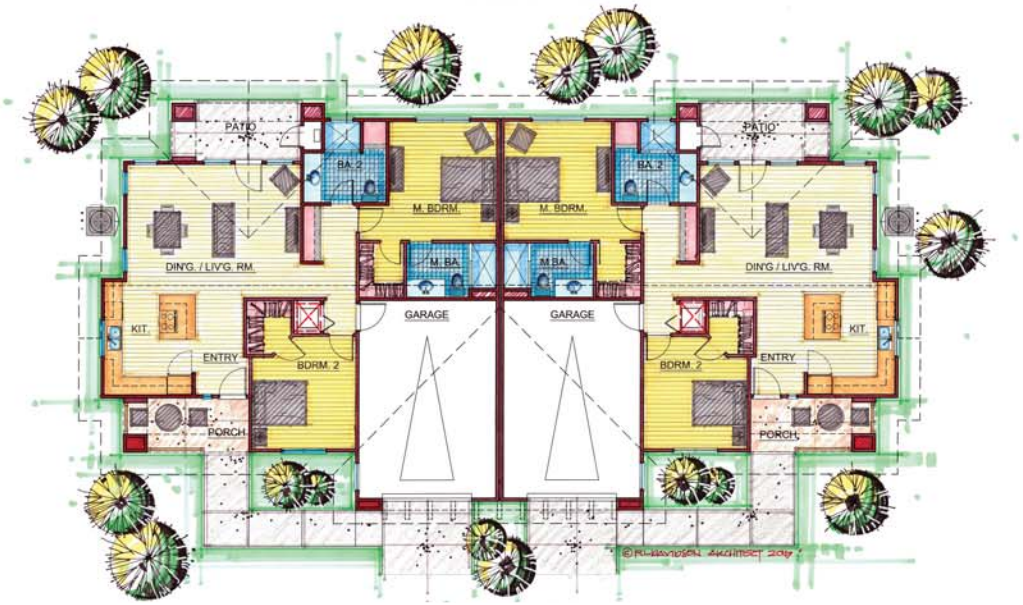
ASSISTED CARE FACILITY - CASITAS

FRONT ELEVATION - BUILDING TYPE 3 - B / B UNITS

NOTE: MATERIALS ARE TYPICAL AT ALL ELEVATIONS AS SHOWN



Source: R. L. Davidson 2015

Figure 4-3

B Unit Casitas

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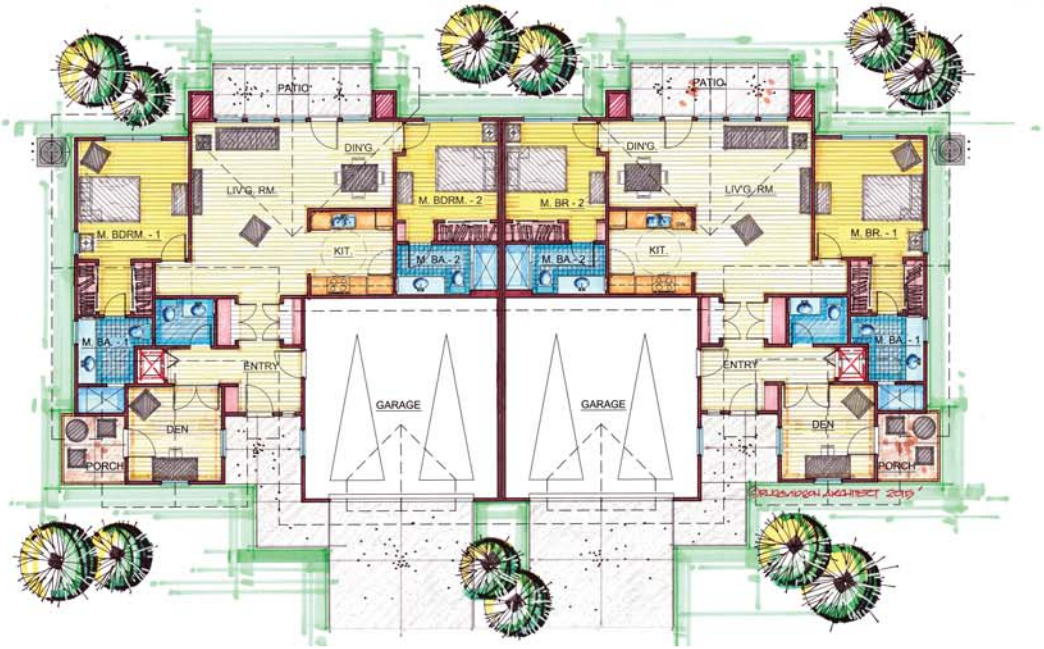
ASSISTED CARE FACILITY - CASITAS

FRONT ELEVATION - BUILDING TYPE 4 - C / C UNITS

NOTE: MATERIALS ARE TYPICAL AT ALL ELEVATIONS AS SHOWN



Source: R. L. Davidson 2015

Figure 4-4

C Unit Casitas

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ASSISTED CARE FACILITY
FRONT ELEVATION

Source: R. L. Davidson 2015

Figure 4-5
Assisted Care Facility

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MEMORY CARE FACILITY
FRONT ELEVATION

Source: R. L. Davidson 2015

Figure 4-6
Memory Care Facility

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Association. Woodridge Court terminates at the entrance to the project site. Access to the proposed development will be by a private loop drive. The project applicants, who own the site, are currently members of the Las Palmas Ranch Home Owners Association and have paid dues to the association. The applicants will pay a proportionate share for the use of the roads and drainage system.

Shuttle services will be provided to residents to access areas on the Monterey Peninsula and Salinas, including regular shuttle service for employees to transportation hubs nearby.

Tree Removal and Conceptual Landscaping

Most of the non-native eucalyptus trees on site, approximately 80 trees, will be removed and will be replaced with a significant amount of landscaping designed to both enhance residents living environment and to screen views of the project from neighboring properties and distant views from State Route 68. A grove of eucalyptus at the north side of the Memory Care facility will remain to provide significant screening of that portion of the project from State Route 68 until the project landscaping matures and provides adequate screening.

Grading

Development of the project will require approximately 60,000 cubic yards of cut, most of which will be compacted and used on site, and 34,500 cubic yards of fill.

Background

The project site is a lot created when the Las Palmas Ranch Subdivision #1 was recorded. The site was identified in the Las Palmas Ranch Specific Plan adopted by the Board of Supervisors September 20, 1983. The project site was identified as an area for medium density residential use. The Monterey County Board of Supervisors then adopted the Toro Area Plan on December 13, 1983 and incorporated the Las Palmas Ranch Specific Plan by reference.

As Las Palmas Ranch developed in the late 1980s and early 1990s, the developers chose, in light of the market demand for larger homes with view potential, to relocate the units that were anticipated to be built on the project site to areas of Las Palmas Ranch that are accessed from Las Palmas Parkway. Although the "relocation" was approved by the County, it was not based on an amendment to the specific plan to reduce the overall development potential of the Las Palmas Ranch Specific Plan or of the project site. Even after the residential limit of the specific plan was nearly met (the specific plan residential building cap is 1,031; presently, 1,028 units have been built), there was no requirement or amendment to reduce the development potential of the project site. The 2010 Monterey County General Plan and 2010 Toro Area Plan maintained the Medium Density Residential land use and zoning designations established with through the adoption of the Las Palmas Ranch Specific Plan.

Applications

Specific Plan Amendment

The proposed project includes an amendment to the Las Palmas Ranch Specific Plan. The Specific Plan designates the project site Medium Density Residential (MDR), a designation that is generally used to develop single-family detached residences at a density between one and five units per acre. However, in addition to residential uses, the MDR designation also allows public/quasi-public uses (Zoning Ordinance 21.12.050(D)), including assisted living facilities, through the approval of a conditional use permit. Residential care facilities are similarly allowed with a conditional use permit (Zoning Ordinance 21.12.050(C)) in the MDR Zoning District. The proposed project falls under the County's general definition of a residential care facility in that the project will be licensed by the State of California to provide "…24-hour residential care and varying levels and intensities of medical or non-medical care, supervision, services or assistance to persons living in a residential setting." The proposed project is not a residential use under the County codes or the Specific Plan and the project does not provide dwelling units that will operate or function as independent units.

For clarity in regard to the future use and development of the project site for the proposed project, the following amendment to the specific plan is proposed:

> "Assisted living facilities are allowable uses in the MDR district in that they are similar to other uses such as rest homes and public quasi-public uses currently allowed in the district through the approval of a conditional use permit. Assisted living facilities are not considered residential units and are not subject to the current 1,031 residential limitation of the Specific Plan. An assisted living facility is considered a public/quasi-public use, not a residential use, because it does not operate or function in a manner like independent residential units. An assisted living facility may, therefore, be considered and approved through a conditional use permit on Parcel Q of the Las Palmas Ranch Specific Plan. "

Use Permit and Design Review

The proposed project will require approval of a Conditional Use Permit from the County of Monterey.

Ministerial Permit Requirements

The proposed facility would be regulated by the Monterey County Environmental Health Bureau for the following: onsite food preparation services, storage and disposal of 1) medical waste, 2) hazardous materials, and 3) solid waste. Prior to issuance of ministerial permits, the Environmental Health Bureau would ensure all required permits are obtained to ensure public health and safety standards are met once the facility is in operation.

Proposed Land Uses

The project site was identified by the specific plan as an area for medium density residential use and the property is, accordingly, zoned "MDR/2.61-D" (Medium Density Residential, 2.61 units per acre; Design Control) by the County of Monterey.

In October 2010, the Board of Supervisors adopted the Monterey County General Plan 2010, including the updated 2010 Toro Area Plan. Monterey County General Plan 2010 Figure LU10, Toro Area Plan Land Use Plan, displays the project site as Medium Density Residential, 2.61 units/acre. The Monterey County General Plan 2010 describes the Medium Density Residential designation as being "…appropriate for a range of residential uses (1-5 units/acre) and housing types, recreational, public and quasi-public, and other uses that are incidental and subordinate to the residential use and character of the area…building coverage is limited to 35% of the subject project" (Policy LU-2.33a).

The Monterey County MDR zoning district is intended to "…provide a district to accommodate Medium Density Residential uses in those areas of the County of Monterey where adequate public services and facilities exist or may be developed to support medium density development. It is intended to require adequate on-site facilities and amenities to assure proper, usable and livable development while allowing sufficient design flexibility to provide such development (Monterey County Code 21.12.010)."

The MDR district (Monterey County Code 21.12.050) allows for a broad range of land uses to be approved without a use permit or similar discretionary approval including supportive and transitional housing and other uses of a similar nature and intensity. Supportive and Transitional Housing are defined in Title 21, Monterey County Code as:

> **21.06.1276 - Supportive housing**. "Supportive housing" means housing with no limit on length of stay, that is occupied by the "target population" (as "target population" is defined in this chapter), and that is linked to onsite or offsite services that assist the supportive housing resident in retaining the housing, improving his or her health status, and maximizing his or her ability to live and, when possible, work in the community.
>
> **21.06.1278 - Target population**. "Target population" means persons with low income having one or more disabilities, including mental illness, HIV or AIDS, substance abuse, or other chronic health conditions, or individuals eligible for services provided under the Lanterman Developmental Disabilities Services Act (California Welfare and Institutions Code, section 4500 et seq.) and may include, among other populations, adults, emancipated youth, families, families with children, elderly persons, young adults aging out of the foster care system, individuals exiting from institutional settings, veterans, and homeless people.

> **21.06.1315 - Transitional housing and transitional housing development.** "Transitional housing" and "transitional housing development" mean buildings configured as rental housing developments, but operated under program requirements that call for the termination of assistance and recirculation of the assisted unit to another eligible program recipient at some predetermined future point in time, which shall be no less than six (6) months (California Health and Safety Code section 50675.2.).

This zoning district also allows a broad range of public/quasi-public uses subject to a use permit (Monterey County Code 21.12.050) including:

- Rooming houses and boardinghouses;
- Rest homes;
- Public and quasi-public uses including churches, cemeteries, parks, playgrounds, schools, public safety facilities, public utility facilities, but not including uses of a non-residential nature such as jails, rehabilitation centers, detention facilities, or corporation yards; and
- Other uses of a similar nature, density and intensity as those listed in this section.

Off-site Improvements

The proposed project does not include or require construction of off-site improvements. However, the applicants will be required to pay a proportionate share for the maintenance of Las Palmas Ranch private roads and drainage facilities used to serve the project site.

Population and Employment

Population

The maximum bed count for the proposed project including all components (Casitas, Assisted Care Facility, Memory Care Facility) is 142 beds and therefore, it can be assumed that the proposed project would accommodate a population of 142 persons.

Employment

The proposed project is projected to employ about 92 when operating at maximum capacity. This will include managers and supervisors, trained care givers, chefs and facility maintenance personnel. Staff per shift will be approximately:

- Morning Shift A (6:00 am to 2:00 pm): 15 employees;
- Morning Shift B (7:00 am to 3:00 pm): 20 employees;
- Day Shift A (8:00 am to 4:00 pm): 12 employees;
- Day Shift B (10:30 am to 6:30 pm): 21 employees;
- Evening Shift A (3:30 pm to 11:30 pm): 12 employees;

- Evening Shift B (11:30 pm am to 6:30 am pm): 12 employees; and
- Shifts will be staggered to minimize peak hour trips on State Route 68.

4.3 INTENDED USES OF THE EIR

In accordance with CEQA Guidelines section 15124(d), following is a list of agencies that are expected to use this EIR in their decision-making, and a list of the approvals for which this EIR may be used. These lists include information that is known to the county as the lead agency.

Local Agencies

- Monterey County - Certification of the EIR and approval of the proposed project (specific plan amendment, use permit, and design review).

State Agencies

- California Department of Social Services, Community Care Licensing Division – Licensing for proposed project as a Residential Care Facility for the Elderly.

Federal Agencies

- None applicable

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5.0
Aesthetics

This section of the draft EIR addresses the project's effects on visual resources, the change in the visual character of the project site and its surroundings due to the project, and the impacts of new sources of light and glare that could be added by the project. Unless otherwise noted the discussion in this section is based upon independent site investigation, information found in the *County of Monterey General Plan*, *Toro Area Plan*, and the *Las Palmas Ranch Specific Plan*.

During the Draft EIR's NOP review period, members of the public questioned potential aesthetic impacts of the proposed project. The county's NOP and comment letters are included in Appendix B.

5.1 Environmental Setting

Scenic Vistas

A scenic vista is generally described as a clear, expansive view of significant regional features possessing visual and aesthetic qualities of value to the community. The project site lies on a knoll at the northwestern end of the approximately 70-mile long Salinas Valley. The visual setting within the Salinas Valley is dominated by open space views comprised of agricultural land and the Gabilan and Santa Lucia mountains that border the valley. These features represent the primary scenic resources within Monterey County. Public views of the dominant rural agricultural landscape and mountains bordering the Salinas Valley are most common from roadways that traverse the valley. In the vicinity of the project site, State Route 68, River Road, and Reservation Road afford travelers sweeping views of agricultural and mountain landscapes.

Visual Quality and Character

The project site is a knoll rising above River Road and existing Las Palmas Subdivision #1 neighborhood to a largely flat plateau that would be the primary development area. The site is dominated by non-native grasses and non-native eucalyptus trees. There is no current active use of the project site, although a small portion of the southwest corner is occasionally grazed. There are no existing buildings or structures on the site. Site elevation ranges from approximately 70 feet above sea level in the northeastern area of the project site to 210 feet

above sea level in the southwestern area of the project site. Representative photographs showing the visual character of the site are presented in Figure 3-4, Project Site Photos, in the Environmental Setting.

Public Views

Existing public views of the site that would be altered by the proposed project are available from State Route 68 and Reservation Road to the north, River Road to the west, and roadways and park and trail areas within the Las Palmas Subdivision #1 residential subdivision to the south.

Public views from State Route 68, Reservation Road, and River Road of the project site are partially obstructed by existing topography and vegetation along roadways. Private views of the site from within the Las Palmas Subdivision #1 residential subdivision are obstructed by existing single family residences and existing topography. Figure 5-1, Viewpoints of Site, displays approximate locations of public and private views of the site. Figures 5-2 through 5-8, display photographs from these locations. Viewpoints 5, 6, and 7 are private viewpoints within the private subdivision.

Light and Glare

The existing source of light and glare in the project vicinity is primarily generated by residential development in the Las Palmas Ranch #1 neighborhood and vehicular traffic on River Road.

5.2 Regulatory Setting

State

The California Department of Transportation (Caltrans) through its California Scenic Highway Mapping System considers certain scenic corridors along travel routes as visual resources of statewide importance. State Route 68 is a designated scenic highway from State Route 1 in Monterey to the Salinas River.

County

Monterey County General Plan

Goal OS-1 of the Monterey County General Plan strives to retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations. The following policies in the General Plan are applicable to aesthetics and visual quality at the project site.

Source: Monterey County GIS 2016, Google Earth 2017

Figure 5-1

Viewpoints of Site

River View at Las Palmas Senior Living Community Project Draft EIR

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Source: EMC Planning Group 2017

Figure 5-2
Public Viewpoint 1

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Source: EMC Planning Group 2017

Figure 5-3
Public Viewpoint 2

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Source: EMC Planning Group 2017

Figure 5-4
Public Viewpoint 3

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Source: EMC Planning Group 2017

Figure 5-5
Public Viewpoint 4

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Source: EMC Planning Group 2017

Figure 5-6
Private Viewpoint 5

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Source: EMC Planning Group 2017

Figure 5-7
Private Viewpoint 6

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Source: EMC Planning Group 2017

Figure 5-8
Private Viewpoint 7

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Policies

OS-1.1 Voluntary restrictions to the development potential of property located in designated visually sensitive areas shall be encouraged.

OS-1.2 Development in designated visually sensitive areas shall be subordinate to the natural features of the area.

OS-1.3 To preserve the County's scenic qualities, ridgeline development shall not be allowed. An exception to this policy may be made only after publicly noticed hearing and provided the following findings can be made:

a. The ridgeline development will not create a substantially adverse visual impact when viewed from a common public viewing area; and either,

b. The proposed development better achieves the goals, policies and objectives of the Monterey County General Plan and applicable area plan than other development alternatives; or,

c. There is no feasible alternative to the ridgeline development.

Pursuant to Policy OS-1.6, in areas subject to specific plans, the ridgeline policies and regulations of the applicable specific plan shall govern.

OS-1.6 In areas subject to specific plans, the ridgeline policies and regulations of the applicable specific plan shall govern. Each specific plan shall address viewshed issues, including ridgeline development, as part of the plan, including, but not limited to, provisions for setbacks, landscaping, height limits, or open space buffers.

OS-1.9 Development that protects and enhances the County's scenic qualities shall be encouraged.

OS-1.12 The significant disruption of views from designated scenic routes shall be mitigated through use of appropriate materials, scale, lighting and siting of development.

Toro Area Plan

The Toro Area Plan identifies the project site as located within an area designated as visually sensitive. The Toro Area Plan identifies State Route 68 as an existing scenic highway, and River Road and Reservation Road as proposed scenic routes (Figure #16). The following policies in the Toro Area Plan are applicable to aesthetics and visual quality at the project site.

Policies

T-3.1 Within areas designated as "visually sensitive" on the Toro Scenic Highway Corridors and Visual Sensitivity Map (Figure 16), landscaping or new development may be permitted if the development is located and designed (building design, exterior lighting, and siting) in such a manner that will enhance the scenic value of the area. Architectural design consistent with the rural nature of the Plan area shall be encouraged.

T-3.2 Land use, architectural, and landscaping controls shall be applied, and sensitive site design encouraged, to preserve Toro's visually sensitive areas and scenic entrances:

a. River Road/Highway 68 intersection; and

b. Laureles Grade scenic vista overlooking the Planning Area (Figure 16).

T-3.5 Exterior/outdoor lighting shall be located, designed, and enforced to minimize light sources and preserve the quality of darkness. Street lighting shall be as unobtrusive as practicable and shall be consistent in intensity throughout the Toro area.

T-3.7 Removal of healthy, native oak trees in the Toro Planning Area shall be discouraged. An ordinance shall be developed to identify required procedures for removal of these trees. Said ordinance shall take into account fuel modification needed for fire prevention in the vicinity of structures and shall include:

a. Permit requirements.

b. Replacement criteria

c. Exceptions for emergencies and governmental agencies

Las Palmas Ranch Specific Plan

The following policies in the Las Palmas Ranch Specific Plan are applicable to aesthetics and visual quality at the project site.

Policies

Conservation and Open Space

1. The following constitute the open space elements of Las Palmas Ranch to be protected:

A. The Salinas River bank and the riparian vegetation adjacent thereto;

B. The agricultural land north of River Road;

C. The central ridge lines and north-facing frontal slopes visible from the Highway 68 Scenic Corridor.

D. The Corey House.

2. Prohibit building on ridgelines visible from designated scenic corridors, as delineated.

3. Higher density housing units shall be clustered behind natural landforms or on lower elevations.

4. Open space areas shall be placed in scenic easements and open space zoning or otherwise adequately protected from development that could destroy the natural amenities of the site.

5. Roads which are perpendicular to viewing areas or which involve excessive cut and fill shall be discouraged.

6. Horizontal and vertical street alignments should relate to the natural contours of the site insofar as is practical.

7. Utilize mounding, informal massing, or irregularly spaced trees, planting and other overall landscaping treatment to screen development.

8. Visually obtrusive building materials and finishes shall be avoided.

Design and Sensitivity

1. All areas of the project proposed for structural development shall be placed in a sign and design control district to ensure county enforcement of the design policies of this specific plan.

3. All structure, including residential, including residential, commercial, recreational and accessory buildings; fences; walls; decks and signs shall require design approval. Approval shall be based upon conformity with the policies of this plan as well as the following specific criteria:

A. Compatibility of external design, materials and colors with existing ground elevations and natural land forms.

B. Conformity of design and location of structures with respect to existing ground elevations and natural land forms.

C. Mitigation of visual impacts from within the development and from major designated view corridors outside of the project.

D. Protection of significant trees and vegetation. Trees over 36" in circumference (four feet above the ground) shall be retained. Where it is necessary to remove such trees for better design or layout, then

they shall be replaced on a two for one basis subject to the approval of the Director of Planning.

E. Prevention of erosion, sedimentation and visual impacts resulting from grading, excavation, cutting or filling.

4. To the extent feasible, all structures should utilize natural materials such as wood and native stone and low intensity earth-tone exterior colors. Visually obtrusive building materials shall be avoided.

5. Low level exterior lighting, including street lighting shall be utilized with the local area, and constructed or located so that only the intended area is illuminated and off-site glare is fully controlled. Street lights may not be used unless approved as conditions of permits obtained pursuant to this plan.

7. Mounding, informal massing, or irregularly spaced trees, planting and other overall landscaping treatment should be utilized to screen development.

8. Preserve vegetation significant to the maintenance of visual quality and to the provision of erosion control on sensitive slopes.

Title 21

Title 21 of the Monterey County Code implements the 2010 General Plan, 2010 Toro Area Plan and Las Palmas Ranch Specific Plan. The following sections explain the purpose of the Design Control district and provide the definitions in the County Code for Substantial Adverse Visual Impact and Common Public Viewing Area:

Design Control District -- 21.44.010 - Purpose.

The purpose of this Chapter is to provide a district for the regulation of the location, size, configuration, materials, and colors of structures and fences, except agricultural fences, in those areas of the County of Monterey where the design review of structures is appropriate to assure protection of the public viewshed, neighborhood character, and to assure the visual integrity of certain developments without imposing undue restrictions on private property.

21.06.1275 - Substantial adverse visual impact.

"Substantial adverse visual impact" means a visual impact which, considering the condition of the existing viewshed, the proximity and duration of view when observed with normal unaided vision, causes an existing visual experience to be materially degraded.

21.06.195 - Common public viewing area.

"Common public viewing area" means a public area such as a public street, road, designated vista point, or public park from which the general public ordinarily views the surrounding viewshed.

5.3 THRESHOLDS OR STANDARDS OF SIGNIFICANCE

The CEQA Guidelines (Appendix G) indicates that a project may have a significant effect on if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- substantially degrade the existing visual character or quality of the site and its surroundings; or
- create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Additionally, the Monterey County Code (21.06.1275) definition of substantial adverse visual impact is considered:

- "Substantial adverse visual impact" means a visual impact which, considering the condition of the existing viewshed, the proximity and duration of view when observed with normal unaided vision, causes an existing visual experience to be materially degraded."

These are the issues evaluated in the impact analysis below.

5.4 ENVIRONMENTAL IMPACT ANALYSIS

Scenic Vistas, Scenic Highways, and Visual Character

The project site has limited visibility from southbound River Road due to road alignment, topography, and native vegetation. Development on the project site would not occur within the 100-foot required setback from River Road. The project site is visible from northbound River Road at and near the intersection with Las Palmas Road. The project site is visible from southbound Reservation Road. Portions of the upper portion and roofs of some of the buildings will be visible from State Route 68 from the Salinas River crossing to the River Road exit. The project site is located approximately ½ to ¾ mile from State Route 68 and is visible for a distance of about 3,000 feet, more than ½ a mile. Therefore, at the normal driving speeds on that portion of State Route 68 the project site is visible for about 30-40 seconds.

The visual impacts of this project are not unexpected or significant. The LPRSP FEIR (pp 56-59) recognized that the development of Las Palmas Ranch, including this site, would "… be

expected to change from the existing open land/agriculture to a more urban setting softened by landscaping, entry way treatment and architectural control." The LPRSP FEIR also states, "Given the distance from the highway (1/2 to 3/4 mile) and the level of development envisioned by the Toro Vista development [now Ferrini Ranch] visual impacts on Highway 68 are insignificant." The FIER goes on to prescribe mitigations measures for the Las Palmas Ranch development. The River View at Las Palmas project incorporated those measures into its design.

The proposed project includes construction of 13 single-story Casitas structures, totaling approximately 28,000 square feet of living area, an approximately 43,500,000 square-foot, two-story assisted living facility, and an approximately 39,000square-foot, three-story Memory Care Facility. Construction of these facilities and associated infrastructure will require the removal of approximately 80 eucalyptus trees. A conceptual landscape plan has been included in the project application materials. The County of Monterey typically does not require a landscape plan as part of discretionary application materials, such as a conditional use permit, but has required one for the proposed River View at Las Palmas project given visibility concerns expressed by the community at public meetings, including two Toro Land Use Advisory Committee meetings and one additional community meeting, held on the project.

The proposed project will be visible from River Road, State Route 68, and Reservation Road, although it will not result in ridgeline development. The proposed project has been designed to minimize its visual impacts through the location of the various structures, use of colors and materials, and new landscaping which will be required as a condition of approval. Included in the project plans are a visual simulation from State Route 68, building elevations and renderings, and color boards. The colors have been selected to minimize visibility and blend with the hills that form the back drop for the project site. The landscaping plan incorporates a range of materials to provide visual screening for views of the project site. Initial planting will include range of size of the materials to include larger specimens (36" or 48" tree specimens) for more immediate screening and smaller plantings which will, at maturity, provide much more screening. Landscaped areas will be irrigated with reclaimed waste water.

An existing, mature eucalyptus grove will be retained on the north side of the memory care facility in order to provide additional screening of the project from State Route 68 while the project landscaping matures. Removal of the other 80 mature eucalyptus trees on the site will result in reduction of non-native species from the property, reduce potential fire hazards associated with the species, and eliminate the potential hazard of falling limbs and debris that occurs with this eucalyptus species. Initial landscape plantings include a mix of more mature plants to provide some immediate mitigation blended with younger, faster growing

plants which will provide long term mitigation. Figure 5-9, Visual Simulation from State Route 68, presents how the proposed project would be viewed from State Route 68. Figure 5-10, Visual Simulation from Reservation Road, presents how the proposed project would be viewed from Reservation Road. These locations were chosen because they were determined to provide the maximum visibility of the project site from these roadways.

Figure 5-9 Visual Simulation from State Route 68

Source: V. E. Tienne 2015

Figure 5-9
Visual Simulation from State Route 68

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Source: V. E. Tienne 2015

Figure 5-10
Visual Simulation from Reservation Road

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Recreational Trail

A private recreational trail that is used only by homeowners and residents of Las Palmas Ranch is located to the south of the project site on the periphery of the existing neighborhood. Based on topography, the project site is not within the viewshed of the recreational trail. Components of the proposed project may be within viewpoints along the future trail should it be constructed.

Light and Glare

The proposed project would introduce new sources of light and potential glare as there would be development on a vacant site.

Applicant Proposed Mitigation Measures

The following mitigation measures intended to reduce impacts to visual resources have been proposed by the applicant.

1. The site shall be landscaped and screened from view from State Route 68, River Road and Las Palmas #1 to the extent feasible. Prior to the issuance of building permits, three (3) copies of a final landscaping plan shall be submitted to the Director of RMA - Planning. The landscaping plan shall be in sufficient detail to identify the location, species, and size of the proposed landscaping and shall include an irrigation plan. The landscaping shall be installed and inspected prior to occupancy. All landscaped areas and/or fences shall be continuously maintained by the applicant and all plant material shall be continuously maintained in a litter-free, weed-free, healthy, growing condition.
2. All exterior lighting shall be unobtrusive, down-lit, harmonious with the local area, and constructed or located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting source shall be shielded and recessed into the fixture. The applicant shall submit three (3) copies of an exterior lighting plan which shall indicate the location, type, and wattage of all light fixtures and include catalog sheets for each fixture. The lighting shall comply with the requirements of the California Energy Code set forth in California Code of Regulations Title 24 Part 6. The exterior lighting plan shall be subject to approval by the Director of RMA-Planning, prior to the issuance of building permits.
3. All new utility and distribution lines shall be placed underground.
4. Colors and materials used for the buildings shall be earth toned to blend with the existing landscape subject to the approval of the Director of Planning.

5.5 IMPACT SUMMARY AND MITIGATION MEASURES

IMPACT The Proposed Project Would have an Adverse Impact on Scenic Vistas and the Existing Viewshed when Viewed from State Route 68, River Road, and Reservation Road and Alter the Existing Visual Character of the Project Site (Less than Significant with Mitigation)

The proposed project would be within the existing viewshed of public areas, including from areas that offer views of scenic vistas and from viewpoints on designated and proposed scenic roadways (State Route 68, River Road and Reservation Road). The proposed project would also alter the existing, natural visual character of the project site. Although the LPRSP FEIR concluded that visual impacts on Highway 68 would be less than significant with full buildout of the specific plan area, including the project site, potential visual impacts of the proposed project are considered a significant adverse environmental impact. Implementation of following mitigation measures would reduce the significant impact to a less-than-significant level.

Mitigation Measures

AES-1 The applicant shall prepare and submit a landscape plan to enhance screening from State Route 68, River Road, Reservation Road, and the adjacent neighborhood and trail. The landscaping plan shall include, but not be limited to, the following:

a. Location, species, and size of plantings, which must be native and drought-tolerant;
b. Mounding, informal massing, or irregularly spaced trees, and plantings;
c. Sufficient native trees and landscaping along the perimeter of the developed area to screen the buildings from State Route 68, River Road, Reservation Road, and the adjacent neighborhood; and
d. Irrigation plan.

The landscape plans shall be subject to review and approval by the Monterey County Resource Management Agency Planning Director, prior to issuance of building permits. The landscaping shall be installed and inspected prior to occupancy. All landscaped areas and/or fences shall be continuously maintained by the project proponent and all plant material shall be continuously maintained in a litter-free, weed-free, healthy, growing condition. This requirement will be included in permit conditions.

AES-2 The applicant shall submit a final plan for colors and materials used for the buildings, which shall be earth toned to blend with the existing vicinity landscape, subject to the approval of the Monterey County Resource Management Agency Planning Director, prior to issuance of building permits.

AES-3 The applicant's final improvement plans shall include construction of all new utility and distribution lines on the project site underground. The improvement plans shall be subject to review and approval of the Monterey County Resource Management Agency Public Works Director, prior to issuance of a grading permit.

Implementation of these mitigation measures will mitigate the impact by requiring the applicant to prepare, implement, and maintain a landscaping plan that will adequately screen the proposed project from vicinity roadways and the adjacent residential neighborhood and trail, utilize colors and materials harmonious with the existing landscape, and require undergrounding all new utility lines on the project site. Although the proposed development would remain partially within the viewshed from surrounding public viewpoints, as displayed in visual simulations prepared for the proposed project, the site design and mitigation measures would reduce public viewshed impacts. Therefore, with the implementation of mitigation measures, impacts would be reduced to a less-than-significant level.

IMPACT The Proposed Project would Introduce New Sources of Light and Glare to the Project Site and Vicinity (Less than Significant with Mitigation)

Implementation of the proposed project would introduce new sources of light and glare to the project site and vicinity. This is considered a significant adverse environmental impact. Implementation of following mitigation measures would mitigate the impact.

Mitigation Measure

AES-4 All exterior lighting shall be unobtrusive, down-lit, harmonious with the local area, and constructed or located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting source shall be shielded and recessed into the fixture. Prior to the issuance of building permits, three (3) copies of an exterior lighting plan which shall indicate the location, type, and wattage of all light fixtures and include catalog sheets for each fixture to the Monterey County Resource Management Agency Planning Director. The lighting shall comply with the requirements of the California Energy Code set forth in California Code of Regulations Title 24 Part 6. The exterior lighting plan shall be subject to approval by the Monterey County Resource Management Agency Planning Director, prior to issuance of a building permit.

Implementation of this mitigation measure would reduce the impact by requiring lighting design and controls for the proposed project. Therefore, with the implementation of mitigation measures, impacts would be reduced to a less-than-significant level.

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6.0
Air Quality

This section of the EIR includes evaluation of proposed project impacts on air quality at a level commensurate with the project description. Unless otherwise noted, the discussion in this section is based upon independent site investigation, information found in the *2005 Report on Attainment of the California Fine Particulate Standard in the Monterey Bay Region - Senate Bill 656 Implementation Plan*, *Monterey Bay Air Resources District 2012-2015 Air Quality Management Plan*, *Monterey Bay Unified Air Pollution Control District CEQA Air Quality Guidelines*, California Emissions Estimator Model results (Appendix C), *County of Monterey General Plan*, *Toro Area Plan*, and the *Las Palmas Ranch Specific Plan.*

During the Draft EIR's NOP review period, some members of the public questioned potential air quality impacts of the proposed project. The county's NOP and comment letters are included in Appendix B.

6.1 Environmental Setting

Regional Climate and Topography

The project site is located in the North Central Coast Air Basin (hereinafter "air basin"), which lies along the central coast of California covering an area of approximately 5,159 square miles. The air basin is comprised of several interconnected valleys: a portion of the Santa Clara Valley, San Benito Valley, Salinas Valley, and Carmel Valley. A semi-permanent high-pressure cell in the eastern Pacific Ocean is the basic controlling factor in the climate of the air basin. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the high-pressure cell forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. Warmer air aloft acts inhibits vertical air movement.

The generally northwest-southeast orientation of mountain ranges restricts and channels summer on-shore air currents. Surface heating in the interior portion of the Salinas and San Benito valleys creates a weak low pressure, which intensifies on-shore airflows during the afternoon and evening. In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. Airflow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the high-

pressure cell, which allows pollutants to build up over a period of a few days. It is most often during the fall season that the north or east winds develop, which can transport pollutants from either the San Francisco Bay Area or the Central Valley into the air basin.

During the winter, the high-pressure cell generally migrates southward, reducingits influence on the air basin. Air frequently flows in a southeasterly direction out of the Salinas and San Benito valleys, especially during night and morning hours. While northwest winds are nevertheless still dominant in winter, easterly flows are more frequent. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring.

Criteria Air Pollutants and their Effects on Human Health

The six most common and widespread air pollutants of concern, or "criteria pollutants," are ground level ozone, nitrogen oxides, particulate matter, carbon monoxide, sulfur dioxide, and lead. In addition, volatile organic compounds are a key contributor to the criteria pollutants because they react with other substances to form ground level ozone. The primary pollutants of concern in Monterey County are ozone, carbon monoxide, and particulate matter 10 and 2.5 microns or less in size. The common properties, sources, and related health and environmental effects of these pollutants are summarized in Table 6-1, Common Air Pollutants. Air-borne lead and sulfur oxides are not significant pollutants of concern in the region (Monterey Bay Unified Air Pollution Control District 2008, 2013).

Ozone. Ground level ozone is produced by chemical reactions, which are triggered by sunlight, involving nitrogen oxides and volatile organic compounds. Since ozone is not directly emitted to the atmosphere, but is formed because of photochemical reactions, it is considered a secondary pollutant. Ozone is a seasonal problem, occurring roughly from April through October.

Ozone is a strong irritant that attacks the respiratory system, leading to the damage of lung tissue. Asthma, bronchitis, and other respiratory ailments, as well as cardiovascular diseases, are aggravated by exposure to ozone. A healthy person exposed to high concentrations of ozone may become nauseated or dizzy, may develop a headache or cough, or may experience a burning sensation in the chest. Research has shown that exposure to ozone damages the alveoli (the individual air sacs in the lungs where the exchange of oxygen and carbon dioxide between the air and blood takes place). Research has also shown that ozone damages vegetation.

Volatile Organic Compounds (Ozone Precursor). Volatile organic compounds are emitted from a variety of sources, including liquid and solid fuel combustion, evaporation of organic solvents, and waste disposal.

Table 6-1 Common Air Pollutants

Pollutant	Properties	Major Sources	Related Health & Environmental Effects
Ozone (O^3)	Created by the chemical reaction between nitrogen oxides and volatile organic compounds in the presence of heat and sunlight. Ground level ozone is the principal component of smog.	▪ Motor vehicle exhaust; ▪ Industrial emissions; ▪ Gasoline vapors; ▪ Chemical solvents.	▪ Reduced lung capacity; Irritation of lung airways and inflammation; ▪ Aggravated asthma; ▪ Increased susceptibility to respiratory illnesses (i.e. bronchitis).
Volatile Organic Compounds (VOC)	Precursor of ground-level ozone.	▪ Petroleum transfer and storage; ▪ Mobile sources; ▪ Organic solvents.	▪ Potential carcinogen (e.g. benzene); ▪ Toxic to plants and animals.
Nitrogen Oxides (NO_X)	Group of highly organic gases containing nitrogen in varying amounts. Many nitrogen oxides are odorless and colorless.	▪ Motor vehicles; ▪ Electric utilities; ▪ Industrial, commercial, and residential sources that burn fuel.	▪ Toxic to plants; ▪ Reduced visibility; ▪ Respiratory irritant.
Suspended and Fine Particulate Matter (PM_{10}) ($PM_{2.5}$)	Describes particles in the air, including dust, soot, smoke, and liquid droplets. Others are so small that they can only be detected with an electron microscope.	▪ Motor vehicles; ▪ Factories; ▪ Construction sites; ▪ Tilled farm fields; ▪ Unpaved roads; ▪ Wood burning.	▪ Aggravated asthma; ▪ Increases in respiratory symptoms; ▪ Decreased lung function; ▪ Premature death; ▪ Reduced visibility.
Carbon Monoxide (CO)	Colorless, odorless gas that is formed when carbon in fuel is not burned completely.	▪ Fuel combustion; ▪ Industrial processes; ▪ Highly congested traffic.	▪ Chest pain for those with heart disease; ▪ Vision problems; ▪ Reduced mental alertness; ▪ Death (at high levels)

SOURCE: Monterey Bay Unified Air Pollution Control District, August 2008, 2013; U.S. Environmental Protection Agency 2016

Nitrogen Oxides (Ozone Precursor). Most nitrogen oxides are created during combustion of fuels. Nitrogen oxides are a major contributor to ozone formation. Nitrogen dioxide is a reddish-brown gas that can irritate the lungs and can cause breathing difficulties at high concentrations. Like ozone, nitrogen dioxide is not directly emitted, but is formed through a reaction between nitric oxides and atmospheric oxygen. Nitrogen dioxide also contributes to the formation of particulate matter (see discussion below). Nitrogen dioxide concentrations

in the air basin have been well below ambient air quality standards; therefore, nitrogen dioxide concentrations from land use projects are not a concern.

Particulate Matter. Particulate matter is comprised of small, suspended particles, primarily composed of dust particles, nitrates, and sulfates. Particulate matter is classified as under 10 microns (suspended particulate matter or PM_{10}) and under 2.5 microns (fine particulate matter or $PM_{2.5}$). Suspended particulate matter is directly emitted to the atmosphere as a byproduct of fuel combustion, wind erosion of soil and unpaved roads, and from construction or agricultural operations. Small particles are also created in the atmosphere through chemical reactions. Approximately 64 percent of fugitive dust is suspended particulate matter. Minimal grading typically generates about 10 pounds per day per acre on average while excavation and earthmoving activities typically generate about 38 pounds per day per acre.

Although particles greater than 10 microns in diameter can cause irritation in the nose, throat, and bronchial tubes, natural mechanisms remove much of these particles. Particles less than 10 microns in diameter, however, are able to pass through the body's natural defenses and the mucous membranes of the upper respiratory tract and enter into the lungs. The particles can damage the alveoli. The particles may also carry carcinogens and other toxic compounds, which can adhere to the particle surfaces and enter the lungs.

Carbon Monoxide. Carbon monoxide is a component of motor vehicle exhaust, which contributes about 56 percent of all carbon monoxide emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute about 22 percent of all carbon monoxide emissions nationwide. Carbon monoxide can cause harmful health effects by reducing oxygen delivery to the body's organs (like the heart and brain) and tissues. Carbon monoxide also contributes to the formation of ground-level ozone.

Higher levels of carbon monoxide generally occur in areas with heavy traffic congestion. In cities and automobile-dependent urban regions, 85 to 95 percent of all carbon monoxide emissions typically comes from motor vehicle exhaust. Concentration of carbon monoxide is a direct function of vehicle idling time and, thus, traffic flow conditions. Transport of carbon monoxide is extremely limited; it disperses rapidly from the source under normal meteorological conditions. Under certain meteorological conditions, however, carbon monoxide concentrations close to a congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). Emissions thresholds established for carbon monoxide apply to both direct or stationary sources.

Typically, high carbon monoxide concentrations are associated with roadways or intersections operating at unacceptable levels of service, particularly during peak commute

times. Thus, congested intersections with high volumes of traffic can result in carbon monoxide "hot spots," where localized high concentrations of carbon monoxide occur.

Toxic Air Contaminants and their Effects on Human Health

Toxic air contaminants are pollutants that may be expected to result in an increase in mortality or serious illness or may pose a present or potential health hazard. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. Toxic air contaminants can be classified as either carcinogens or non-carcinogens. The air district considers an incremental risk of greater than 10 cases per million, over a 70-year exposure period for the Maximally Exposed Individual to be a significant impact. The 10 excess cases per million equates to the possibility of causing 10 additional cancer cases in a population of one million. This risk level is also used by the Air Toxics "Hot Spots" (AB 2588) program and Proposition 65 as the public notification level for air toxic emissions from existing sources.

Diesel Emissions. Diesel exhaust is the predominant toxic air contaminant in urban air and is estimated to represent about two-thirds of the cancer risk from toxic air contaminants. Diesel engines emit a complex mix of pollutants including nitrogen oxides, particulate matter, and toxic air contaminants. The most visible constituents of diesel exhaust are very small carbon particles or soot, known as diesel particulate matter. Diesel exhaust also contains over 40 cancer-causing substances, most of which are readily adsorbed on the soot particles. Among the toxic air contaminants contained in diesel exhaust are dioxin, lead, polycyclic organic matter, and acrolein. Short-term exposure to diesel particulate matter is associated with variable irritation and inflammatory symptoms. Diesel engine emissions are responsible for a majority of California's estimated cancer risk attributable to air pollution. Diesel particulate matter is a significant fraction of California's particulate pollution (California Air Resources Board 2005, California Office of Environmental Health Hazard Assessment 2001).

Diesel exhaust is especially common during the grading stage of site preparation and construction, when most heavy equipment is used, and adjacent to heavily trafficked roadways where diesel trucks are common. The United States Environmental Protection Agency (EPA) regulates diesel engine design and fuel composition at the federal level, and has implemented a series of measures since 1994 to reduce nitrogen oxides and particulate emissions from off-road and highway diesel equipment. Ultralow sulfur off-road and highway diesel fuels, 15 parts per million (ppm) became the standard in California by 2007, replacing the previous 500 ppm fuel (Clean Diesel Fuel Alliance 2016).

EPA Tier 1 non-road diesel engine standards were introduced in 1996, Tier 2 in 2001, Tier 3 in 2006, and Tier 4 in 2011, with final Tier 4 in 2014 (DieselNet 2016). Table 6-2, Typical Non-

Road Engine Emissions Standards compares emissions standards for NOx and particulate matter from non-road engine Tier 1 through Tier 4 for typical engine sizes. As illustrated in the table, emissions for these pollutants have decreased significantly for construction equipment manufactured over the past 20 years, and especially for construction equipment manufactured in the past two years.

Table 6-2 Typical Non-Road Engine Emissions Standards (g/bhp-hr)

Engine Tier	NOx Emissions			Particulate Emissions		
	100-175 HP	175-300 HP	300-600 HP	100-175 HP	175-300 HP	300-600 HP
Tier 1	6.90	6.90	6.90	--	0.40	0.40
Tier 2	6.90 †	6.90 †	6.90 †	0.22	0.15	0.15
Tier 3	6.90 †	6.90 †	6.90 †	0.22 †	0.15 †	0.15 †
Tier 4	0.30	0.30	0.30	0.015	0.015	0.015

SOURCE: Dieselnet.com/standards/us/nonroad.php accessed November 15, 2016.
† - standard not adopted; standard shown is for prior tier

In California, non-road equipment fleets can retain older equipment, but fleets must meet averaged emissions limits, new equipment must be Tier 3 or better after January 2018 (for large and medium fleets) or January 2023 (for small fleets), and over time the older equipment must be fitted with particulate filters. Large and medium fleets have increasingly strict fleet compliance targets through 2023 and small fleets through 2029. A small fleet is one that has total horse power of 2,500 or less; a medium fleet is one that has total horsepower of between 2,500 and 5,000. All non-road equipment operating in California is registered with the California Air Resources Board (CARB), which issues an equipment identification number (California Air Resources Board 2016).

Asbestos. Asbestos is found in several kinds of building materials and also occurs naturally in serpentine rocks and soils formed from serpentine rocks (California Department of Conservation, Division of Mines and Geology 2000). Asbestos had formerly been mined in southern Monterey County, with one of the largest asbestos mines in California located near the San Benito County/Fresno County lines. This mine closed in 2002 (United States Geological Survey and California Geological Survey 2011). Asbestos is generally not harmful when asbestos-containing materials are left undisturbed, but when soils or materials containing asbestos are disturbed, microscopic fibers can be dislodged and remain in the air for long periods. If asbestos fibers are inhaled they can become lodged in body tissues and pose a serious health threat, especially lung disease. Handling and disposal of asbestos containing materials is regulated by federal and state law. Since the project site is undeveloped it does not contain any buildings or structures that could have asbestos containing materials. The project site's soils are composed of deep alluvial soils and the site

does not contain serpentine rocks, although naturally occurring asbestos has been discovered in some Salinas Valley soils (United States Geological Survey and California Geological Survey 2011).

Construction Emissions

Emissions generated during construction are "short-term" in the sense that they would be limited to the solely to periods of site development and construction. Short-term construction emissions are typically generated by the use of heavy equipment, the transport of materials, and construction employee commute trips. Construction-related emissions consist primarily of reactive organic gasses, nitrogen oxides, suspended particulate matter, and carbon monoxide. Emissions of reactive organic gasses, nitrogen oxides, and carbon monoxide are generated primarily by the operation of gas and diesel-powered motor vehicles, asphalt paving activities, and the application of architectural coatings. Suspended particulate matter emissions are generated by wind erosion of exposed graded surfaces and diesel engines.

Stationary Source Emissions

Stationary sources include factories, boilers, generators, and gasoline dispensing stations, all of which require an operating permit from the Monterey Bay Area Air Resources Board (air district).

Sensitive Receptors

Although air pollution can affect all segments of the population, certain groups are more susceptible to its adverse effects than others. Children, the elderly, and the chronically or acutely ill are the most sensitive population groups. These sensitive receptors are commonly associated with specific land uses such as residential areas, schools, parks, retirement homes, and hospitals. In addition, certain air pollutants, such as carbon monoxide, only have significant effects if they directly affect a sensitive population. Potential sensitive receptors near the project site include residents of the adjacent Toro area, specifically residents of the adjacent Las Palmas subdivision.

Air Basin Attainment Status

In accordance with the Clean Air Act, CARB is required to designate regions of the State as attainment, non-attainment, or unclassified with regard to that region's compliance with criteria air pollutants standards. An "attainment" designation for a region signifies that pollutant concentrations do not violate the standard for a specified pollutant in that region. A "non-attainment" designation indicates that a pollutant concentration violated the standard at least once. An "unclassified" designation signifies that available data does not support either an attainment or non-attainment status. The California Clean Air Act divides designations into moderate, serious, and severe air pollution attainment categories, with

increasingly stringent control requirements mandated for each category. The air basin is in non-attainment with State mandated thresholds for ozone and suspended particulate matter. Table 6-3, North Central Coast Air Basin Attainment Status Designations, identifies the current status within the air basin for each criteria pollutant.

Table 6-3 North Central Coast Air Basin Attainment Status Designations

Pollutant	State	Federal
Ozone (O^3)	Non-Attainment	Attainment
Inhalable Particulates (PM_{10})	Non-Attainment	Attainment
Fine Particulates ($PM_{2.5}$)	Attainment	Attainment
Carbon Monoxide (CO)	Monterey Co. - Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	Attainment	Attainment

SOURCE: Monterey Bay Air Resources District, March 2017

Ambient Air Quality

Table 6-4, Summary of Ambient Air Quality Data (2013-2015), summarizes the most recent three years of published monitoring data from the district's monitoring station.

According to the air district, there are no known CO "hot spots" or localized areas containing high concentrations of carbon monoxide in Monterey County (Bob Nunes, pers. com., February 24, 2017).

Table 6-4 Summary of Ambient Air Quality Data (2013-2015)

Pollutant and Measurement Standard	2013[1]	2014[1]	2015[1]
Ozone (O_3)			
Maximum concentration, 1-hr/8-hr (ppm)	0.065/0.062	0.066/0.062	0.068/0.061
# days state standard (1-hr/8-hr) exceeded[3]	0/0	0/0	0/0
# days federal standard (8-hr) exceeded[3]	0	0	0
Suspended Particulate Matter (PM_{10})			
Maximum 24-hour concentration ($\mu g/m^3$) [2]	NA	NA	NA
Estimated number of days state standard exceeded[3]	NA[4]	NA[4]	NA[4]
Estimated number of days federal standard exceeded[3]	NA[4]	NA[4]	NA[4]
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration ($\mu g/m^3$) [2]	19.7	20.2	22.8
Estimated number of days federal standard exceeded [3]	0	0	0

SOURCE: CARB 2017. Aerometric Data Analysis and Measurement System, as found at http://www.arb.ca.gov/adam/

NOTES:
1. Ozone and particulate data obtained from the Salinas #3 monitoring station
2. µg/m3 = Micrograms per Cubic Meter
3. Estimated average number of days per year
4. Not enough data available.

Ambient air pollutant levels are monitored at several monitoring stations in the air basin. Air quality monitoring stations usually measure pollutant concentrations ten feet above-ground level; therefore, air quality is often referred to in terms of ground-level concentrations.

Local ambient air quality in Monterey County is monitored by the air district in Carmel Valley (Ford Road), King City (415 Pearl Street), and Salinas (#3). The air district monitoring station closest to the project site is located near the intersection of East Laurel Drive and Constitution Boulevard in Salinas, approximately six miles northeast of the project site.

6.2 REGULATORY SETTING

Federal

The Federal Clean Air Act, adopted by Congress in 1970 and amended in 1990, provides the basis for Federal air quality standards. The Clean Air Act is implemented by the U.S. EPA. The Clean Air Act established two types of national air standards: primary and secondary. Primary standards set limits to protect public health, including the health of sensitive persons such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

Federal and State Ambient Air Quality Standards

Ambient air quality is described in terms of compliance with State and Federal standards. The State and Federal clean air acts established two types of National Ambient Air Quality Standards for each criteria pollutant. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

In general, criteria pollutants are pervasive constituents, such as those emitted in vast quantities by the combustion of fossil fuels. Both the State and Federal governments have developed ambient air quality standards for the identified criteria pollutants, which include ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, PM_{10}, and $PM_{2.5}$. Table 6-5, Federal and State Ambient Air Quality Standards, lists State and Federal ambient air quality standards for criteria air pollutants. The State standards generally have lower, more strict thresholds than the Federal standards, yet both are applicable to the proposed project. When

thresholds are exceeded at regional monitoring stations, an "attainment plan" must be prepared that outlines how an air quality district will achieve compliance. Generally, these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods.

Table 6-5 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]			
		Concentration		Primary[3,4]		Secondary[3,5]	
		ppm	µg/m^3	ppm	µg/m^3	ppm	µg/m^3
Ozone[6]	1 Hour	0.09	180	-	-	-	-
	8 Hour	0.07	137	0.070	137	0.070	137
PM_{10}[7]	24 Hour	-	50	-	150	-	150
	Annual	-	20	-	-	-	-
$PM_{2.5}$[7]	24 Hour	-	-	-	35	-	35
	Annual	-	12	-	12	-	15
Carbon Monoxide (CO)	8 Hour	9.0	10	9	10	-	-
	1 Hour	20.0	23	35	40	-	-
Nitrogen Dioxide (NO_2)[8]	Annual	0.030	57	0.053	100	0.053	100
	1 Hour	0.18	339	0.100	188	-	-
Sulfur Dioxide (SO_2)[9]	Annual	-	-	0.030	See note[8]	-	-
	24 Hour	0.04	105	0.14	See note[8]	-	-
	3 Hour	-	-	-	-	0.5	1,300
	1 Hour	0.25	655	0.075	196	-	-
Lead[10,11]	30 Day Average		1.5	-	-	-	-
	3 month revolving	-	-	-	0.15	-	0.15
	Calendar Quarter	-	-	See note[11]	1.5	See note[11]	1.5
Visibility Reducing Particles[12]	8 Hour	See note[12]		No Federal Standards			
Sulfates	24 Hour	-	25				
Hydrogen Sulfide	1 Hour	0.03	42				
Vinyl Chloride[10]	24 Hour	0.01	26				

SOURCE: CARB, May 4, 2016. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

NOTES:

1. California standards for ozone, carbon monoxide, sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
7. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3, as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over three years.
8. To attain the 1-hour national standard, the three-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
9. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the three-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
10. CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
11. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
12. In 1989, CARB converted the general statewide 10-mile visibility standard to instrumental equivalents, which is "extinction of 0.23 per kilometer" for the statewide standard.

The U.S. EPA has established National Emission Standards for Hazardous Air Pollutants, which are applicable to asbestos, beryllium, mercury, vinyl chloride, benzene, arsenic, and radon/radionuclides, which are regulated by source-specific rules. Examples of regulated sources include asphalt processing, boat manufacturing, chromium electroplating, coke ovens, dry cleaning, leather finishing, plywood manufacturing, polymer and resin manufacturing, and surface coating of various products. The standards for a particular source category require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology.

State and Regional

The Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner 1983) created California's program to reduce exposure to airborne toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly 1987) supplements the AB 1807 program, by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Under AB 1807, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In accordance with California Health and Safety Code section 39666(f), CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community." AB 1807 also requires CARB to use available information gathered from the AB 2588 program to include in the prioritization of compounds.

The Office of Environmental Health Hazard Assessment assists CARB by developing the health assessment part of the toxic air contaminants identification documents; reviews facility risk assessments for the "Hot Spots" Program; is developing new risk assessment guidelines for the "Hot Spots" Program; and is the lead agency for Proposition 65. The Department of Pesticide Regulation regulates toxic air contaminants that are also pesticides. No quantified concentration thresholds are established, because the State has determined there is insufficient available scientific evidence to support the identification of a threshold exposure level. As noted previously, the air district has not identified any “Hot Spots” in Monterey County.

Diesel-powered construction equipment is regulated at both the Federal and State levels by the U.S. EPA and CARB. Beginning in 1996, new diesel equipment engines were required to meet emission standards. EPA Tier 2 diesel engine standards were implemented from 2001 and 2006, Tier 3 standards from 2006-2008, Engines are now in Tier 4 designs, reducing emissions of NOx and PM_{10} significantly since the first requirements were introduced. CARB requires that equipment fleets’ average emissions meet increasingly stringent standards, and requires the phase-in of diesel particulate matter filters on older equipment. With exemptions for certain specialized equipment, CARB restricts engine idling time to five minutes.

California’s Regulation for In-use Off-road Diesel Vehicles establishes a state program to reduce nitrogen oxides and particulate emissions from older construction equipment. Several provisions of the regulation are in force (idling restrictions and reporting), and other provisions are being phased in from 2014 to 2029 (fleet composition). As the regulation is

fully implemented, it will reduce construction equipment emissions over time (California Air Resources Board 2014b). Ultralow sulfur diesel fuel, at 15 parts per million (ppm), has been the standard in California for both on-road and off-road vehicles since 2006 (Clean Diesel Fuel Alliance 2014). California is phasing in the use of particulate matter filters on heavy on-road trucks, beginning in 2014, with all heavy trucks to be compliant by 2020 (California Air Resources Board 2014a). The Tier 4 engines and ultralow sulfur fuels will reduce annual emissions by an estimated 738,000 tons of NOx and 129,000 tons of particulate emissions (DieselNet 2016).

Monterey Bay Air Resources District

The Monterey Bay Air Resources District (air district) is the regional agency with responsibility for monitoring air quality and achieving attainment of State and Federal standards in, Monterey, Santa Cruz and San Benito Counties. The air district exercises its jurisdiction within the air basin. The air district is charged with regulatory authority over stationary sources of air emissions, monitoring air quality within the air basin, providing guidelines for analysis of air quality impacts pursuant to CEQA, and preparing an air quality management plan to maintain or improve air quality in the air basin.

Air Quality Management Plan. The air district is delegated with local responsibility to implement both Federal and State mandates for improving air quality in the air basin through implementation of an air quality plan. The air district adopted the Air Quality Management Plan for the Monterey Bay Region ("Air Quality Management Plan") in 1991 and has completed several updates in subsequent years, most recently in 2017 (see also the 2012-2015 Air Quality Management Plan below). The Air Quality Management Plan presents measures to control emissions of volatile organic compounds from stationary and mobile sources in order to meet the ozone standard mandated by the California Clean Air Act. In 2006, CARB made the ambient air quality standards more stringent by adding an 8-hour ozone average to the standard.

The Air Quality Management Plan outlines the steps that will be taken to come into attainment with the state and federal standards, and also requires measures to further reduce ozone levels in the air. The principal strategies for ozone reduction that are relevant to the proposed project are construction equipment emissions control measures, transportation control measures, and low-NOx gas-fired water heater and furnace requirements. The Air Quality Management Plan transportation control measures reflect relevant projects included in Monterey Bay Metropolitan Transportation Improvement Program.

To achieve and maintain ambient air quality standards, the air district also has adopted various rules and regulations for the control of airborne pollutants. Air district rules and regulations applicable to the proposed project include the following:

Rule 402 (Nuisances). The purpose of this rule is to prohibit emissions that may create a public nuisance. Applies to any source operation that emits or may emit air contaminants or other materials.

Rule 425 (Use of Cutback Asphalt). The purposed of this rule is to limit emissions of vapors of organic compounds from the use of cutback and emulsified asphalt. This rule applies to the manufacture and use of cutback, slow cure, and emulsified asphalt during paving and maintenance operations.

Rule 426 (Architectural Coatings). The purpose of this rule is to limit emissions of volatile organic compounds (ROG, NOx, etc.) from architectural coatings.

Projects related directly to population growth will generate population-related emissions (e.g., motor vehicles, residential heating and cooling emissions). These emissions have been forecast in the Air Quality Management Plan using population forecasts adopted by the Association of Monterey Bay Area Governments (AMBAG). Thus, population-related projects which are consistent with AMBAG regional population forecasts are consistent with the Air Quality Management Plan. For a proposed residential project, or institutional project, such as the proposed care facility, that has a predictably stable onsite resident population, consistency is determined by comparing the project population at the year of project completion with the forecast for the appropriate five-year increment (e.g., if project completion is 2020, the project would be compared with year 2020 forecasts) for the jurisdiction in which the project is located. A proposed residential project is consistent with the Air Quality Management Plan if the population increase resulting from the project will not cause the estimated cumulative population (i.e., existing population plus population from locally-approved and unconstructed projects) to exceed forecasts for the next five-year increment.

Air District 2012-2015 Air Quality Management Plan (2017). This is the seventh update to the original 1991 Air Quality Management Plan. This report is an update to the elements included in the 2008 Air Quality Management Plan based on a review of the time period 2012-2015. It shows that the region continues to make progress toward meeting the state ozone standard. The air district's focus continues to be on achieving the 8-hour component of the ozone standard since the region has attained the 1-hour standard. The primary elements from the 2008 Air Quality Management Plan updated in this revision include the air quality trends analysis, emission inventory, and mobile source programs. The 2012-2015 Air Quality Management Plan incorporates the 2014 Association of Monterey Bay Area Governments population projections.

Air District CEQA Air Quality Guidelines (2008). The purpose of the air district air quality guidelines is to inform public agencies, consultants, project proponents and the general

public of the air district's adopted thresholds of significance and to provide guidance in the review and evaluation of air quality impacts of projects that are subject to CEQA. The air quality guidelines are intended to provide uniform procedures for assessing air quality impacts and preparing the air quality section of environmental documents. They are also intended to help streamline the CEQA review process for project proponents, lead agencies, and the air district.

County

Monterey County General Plan

The following policies in the General Plan are applicable to air quality.

Policies

> **OS-10.2** Mass transit, bicycles, pedestrian modes of transportation, and other transportation alternatives to automobiles shall be encouraged.
>
> **OS-10.7** Use of the best available technology for reducing air pollution emissions shall be encouraged.
>
> **OS-10.9** The County of Monterey shall require that future development implement applicable Monterey Bay Unified Air Pollution Control District control measures.
>
> Applicants for discretionary projects shall work with the Monterey Bay Unified Air Pollution Control District to incorporate feasible measures that assure that health-based standards for diesel particulate emissions are met. The County of Monterey will require that future construction operate and implement MBUAPCD PM_{10} control measures to ensure that construction-related PM_{10} emissions do not exceed the MBUAPCD's daily threshold for PM_{10}. The County shall implement MBUAPCD measures to address off-road mobile source and heavy duty equipment emissions as conditions of approval for future development to ensure that construction-related NOx emissions from non-typical construction equipment do not exceed the MBUAPCD's daily threshold for NOx.

6.3 THRESHOLDS OR STANDARDS OF SIGNIFICANCE

Based on the air quality guidelines (Monterey Bay Unified Air Pollution Control District 2008, p. 5-14), and air district guidance on consistency with the Air Quality Management Plan (Monterey Bay Air Resources District 2017), the project would have a significant air quality impact if it would:

- Conflict with or obstruct implementation of the Air Quality Management Plan:

- Exceed AMBAG population forecasts for the jurisdiction.

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation:
  - Emit 137 pounds per day or more of an ozone precursor air pollutant (volatile organic compounds or nitrogen oxides);
  - Directly emit 550 pounds per day or more of carbon monoxide;
  - Generate traffic that significantly affects levels of service;
  - Emit 82 pounds per day or more of suspended particulate matter on-site, which is equivalent to general construction activity over an area of at least 8.1 acres per day, or grading/excavation over an area of at least 2.2 acres per day;
  - Emit 82 pounds per day or more of suspended particulate matter from vehicle travel on unpaved roads; or
  - Directly emit 150 pounds per day or more of sulfur oxides.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment (ozone/ozone precursors, and suspended particulate matter) under an applicable federal or state ambient air quality standard.
- Expose existing or reasonably foreseeable sensitive receptors to substantial pollutant concentrations:
  - Cause or contribute to an exceedance of a carbon monoxide standard as measured by Level of Service (LOS) degradation at a project-affected intersection and confirmed by dispersion modeling. The air quality guidelines require carbon monoxide hot spot analysis under the following project conditions:
    - Intersections degrading to below LOS D;
    - Volume to capacity ratio increases by 0.05 at LOS E or F intersections;
    - The delay at LOS E or F intersections increases by 10 seconds or more; or
    - Reserve capacity at un-signalized LOS E or F intersections decreases by 50 or more.
  - Cause a violation of suspended particulate matter standard at a sensitive receptor.
  - Expose sensitive receptors or the general public to substantial levels of toxic air contaminants if the source of the contaminants results in an additional cancer risk of ten in one million or greater over a 70-year exposure period, for the maximally exposed individual.
- Create or expose a substantial number of people to objectionable odors.

6.4 ENVIRONMENTAL IMPACT ANALYSIS

Consistency with the 2012-2015 Air Quality Management Plan

The proposed project would not conflict with the 2012-2015 Air Quality Management Plan. Projects related directly to population growth generate population-related emissions (e.g., motor vehicles, residential heating and cooling emissions). Population-related emissions have been estimated in the Air Quality Management Plan using population forecasts adopted by AMBAG. Population-related projects that are consistent with these forecasts are consistent with the 2012-2015 Air Quality Management Plan. For cumulative impacts, the air district recommends that projects be assessed for consistency with the Air Quality Management Plan. The Air Quality Management Plan consistency was determined using the air district's 2011 Consistency Determination Procedure for Residential Development Projects and the AMBAG regional growth forecast data presented in Appendix A of the 2012-2015 Air Quality Management Plan. The 2008 AMBAG regional growth forecast data in the Consistency Determination Procedure spreadsheet was updated with the 2014 AMBAG regional growth forecast data for unincorporated Monterey County. This approach was approved by MBARD (Bob Nunes, pers. com., March 31, 2017).

The proposed project, was evaluated for consistency using an anticipated buildout/occupancy year of 2020. The results of the evaluation process are included as Appendix C. The evaluation determined that the proposed project would be consistent with the Air Quality Management Plan at 2020.

According to the Monterey Bay Area 2014 Regional Growth Forecast (AMBAG 2014), the unincorporated Monterey County population was 101,530 in 2015. The estimated population for 2020 is anticipated to be 102,847. The 2014 AMBAG population projections are based upon an anticipated 0.16 percent annual growth rate. The AMBAG forecast reported that the projected housing unit requirements are expected to be 39,337 in 2020. Recent data from the County indicates existing housing stock consists of approximately 38,683 total housing units (County of Monterey 2015, p.23) with an additional 368 approved housing units (Luke Connolly, pers. com., March 28, 2017).

At project buildout (estimated 2020), the proposed project would provide housing for approximately 128 persons, based on a 90 percent occupancy rate of the total beds (142) available at the proposed facility. The 368 approved housing units in unincorporated Monterey County would provide housing for approximately 960 persons based on the 2020 AMBAG forecast factor of 2.61 persons per dwelling unit. The proposed project and the approved housing units would increase the county's unincorporated population by a total of

1,088 persons. The increase in the county's total population resulting from development of the proposed project and approved housing units would be less (a total of 102,618 persons) than the AMBAG 2020 projections (102,847 persons) upon which the Air Quality Management Plan is based.

The increase in population generated by the proposed project is consistent with air district air quality planning efforts.

Short-term Construction Impacts

The project site is 15.64 acres and initial site preparation and mass grading activities could exceed 2.2 acres per day. Site improvements conducted in later phases also could include grading or other light earth movement exceeding 8.1 acres in a day. According to the air district's CEQA guidelines, a project that includes excavation or grading to that extent would generate dust that would exceed the air district standards (82 lbs per day) for suspended particulate matter (PM_{10}), which also would contribute to the air basin's nonattainment status for PM_{10}.

Mobile and Area Source Emissions

Emissions modeling for the proposed project was conducted using the California emissions estimator model (CalEEMod). The CalEEMod platform estimates both project mobile-source and operational emissions, including vehicular, direct, and indirect emissions. The model also estimates greenhouse gas emissions from land development projects. The model contains default data for vehicular emissions (e.g., meteorology, source inventories, energy and water consumption, emission factors, trip lengths, etc.) provided by various California air districts and approved by CARB, to account for local requirements and conditions. Direct emissions include natural gas combustion associated with the heating of water and space, along with the emissions from use of gas-powered landscape equipment. Indirect emissions include off-site generation of electricity, and off-site processes associated with the land use, such as water treatment and delivery. Vehicular emission rates of volatile organic compounds and nitrogen oxides are sensitive to the year of analysis because emissions rates are decreasing as vehicles with more effective emission controls dominate the fleet mix. Construction of all components, casitas units, assisted living and memory care facitlities, of the proposed project are estimated to be completed in 2020. The anticipated operational year for the analysis performed for the proposed project is the model's default operational date of 2020 (Zulbreti, Andrea. Email message to consultant, 9 April 2017).

Model inputs include air basin information from the air district, and project-related inputs based upon the amount and type of existing and proposed land uses. Detailed CalEEMod results are presented in Appendix C.

The proposed project would result in new sources of mobile and area source emissions. Operational criteria air pollutants emissions are reported as winter and summer emissions. The CalEEMod modeling results for the proposed project (105 dwelling units and related infrastructure) are summarized in Table 6-6, CalEEMod Operational Modeling Results Winter and Summer Emissions (Pounds per Day).

As summarized in Table 6-6, the proposed project would not result in unmitigated or mitigated operational winter or summer emissions that exceed the air district thresholds for ROG, NOx, PM_{10}, or CO. Therefore, the proposed project operations would result in a less-than-significant impact associated with area and mobile source emissions.

Table 6-6 CalEEMod Operational Modeling Results, Winter and Summer Emissions (Pounds per Day)

	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO_x)	Suspended Particulate Matter (PM_{10})	Carbon Monoxide (CO)
Winter Emissions				
Unmitigated	4.66	3.91	1.65	17.11
Mitigated	4.66	3.91	1.65	17.11
Percent Reduction	0.00	0.00	0.00	0.00
Summer Emissions				
Unmitigated	4.71	3.70	1.65	16.75
Mitigated	4.71	3.70	1.65	16.75
Air District Thresholds	*137*	*137*	*82*	*550*
Percent Reduction	0.00	0.00	0.00	0.00

SOURCE: Monterey Bay Air Resources Board and EMC Planning Group Inc. 2017

Carbon Monoxide Hot Spots

The proposed project would generate approximately 22 vehicle trips during the AM peak-hour and 33 vehicle trips during the PM peak-hour. The project will add approximately two morning peak hour trips and four evening peak-hour trips to the two-lane section of State Route 68 immediately west of the Toro Park interchange. Project traffic will dissipate along the corridor at the many cross roads including Torero Drive, San Benancio Road, Corral de Tierra Road and Laureles Grade, resulting in less than one morning peak hour trip and about two evening peak hour trips west of Laureles Grade. Project traffic will be at or below one peak-hour trip west of State Route 218. Although Highway 68 has been determined to

currently operate at Level of Service F, project traffic will have no effect on State Route 68 traffic operations. According to the air district, there are no known CO "hot spots" or localized areas containing high concentrations of carbon monoxide anywhere in Monterey County (Bob Nunes, pers. com., February 24, 2017), therefore, modeling for CO emissions along State Route 68 was not conducted. Development and operation of the proposed project could not create or contribute to unacceptable levels of CO at the studied roadways in the site vicinity.

Diesel Exhaust

Diesel exhaust includes air contaminants that can cause adverse health effects. Development of the project site would likely utilize diesel-fueled heavy equipment, which would increase exposures of diesel exhausts to existing residences located in the residential subdivision east of the proposed project site. Diesel-powered trucks and equipment would emit NOx, acrolein, and diesel particulate matter during the construction phase. Construction equipment can emit substantial amounts of NOx that could have a small, but cumulative effect on ozone concentrations.

Calculating ROG and NOx emissions from typical construction equipment is not required by the air district because temporary emissions of these ozone precursors have been accommodated in State- and federally-required air plans (Monterey Bay Unified Air Pollution Control District 2008, p. 7-1). Therefore, the air quality impacts of construction ROG and NOx emissions are less than significant.

Construction activities associated with the proposed project would likely involve use of the heavy-duty off-road equipment and large trucks that use diesel fuel and emissions of diesel particulate matter. CARB's Regulation for In-use Off-road Diesel Vehicles establishes a State program to reduce emissions from older construction equipment. Equipment built to EPA Tier 4 diesel engine standards and utilizing ultralow sulfur fuel would result in diesel emissions that are substantially lower than older equipment. However, older equipment not meeting the Tier 4 standards would result in greater emissions and increased risks of exposure to them, which is a potentially significant air quality impact.

Odors

The proposed project includes the construction of a senior living community and would not result in any objectionable odors during the operational phase. There may be nuisance diesel odors associated with operation of diesel construction equipment on-site (primarily during initial grading phases), but this effect would be localized, sporadic, and short-term in nature. The air district does not regulate odor emissions other than through its nuisance rule. Therefore, temporary impacts from nuisance diesel odors to nearby residential receptors would be a less-than-significant impact.

6.5 IMPACT SUMMARY AND MITIGATION MEASURES

IMPACT Construction Emissions that Contribute to the Air Basin's Non-Attainment Status (Less than Significant Impact with Mitigation)

The proposed project would generate dust and other emissions from construction equipment during site preparation and construction activities, which would contribute to the air basin non-attainment status for PM_{10}. The project's contribution to this cumulative regional effect is considered significant.

The air district has identified the following feasible measures, that when implemented, reduce the impacts of construction dust emissions to a less-than-significant level.

Mitigation Measures

AQ-1 Prior to issuance of any grading or building permits, developers of the project site shall prepare a grading plan subject to review and approval by the Monterey County Resource Management Agency Planning Director. In the event that ground disturbance exceeds 2.2 acres per day for initial site preparation activities that involve extensive earth moving activities (grubbing, excavation, rough grading), and 8.1 acres per day for activities that involve minimal earth moving (e.g. finish grading) these limits, the required grading plans shall include the following dust control measures:

a. Water all active construction sites continuously. Frequency should be based on the type of operation, soil, and wind exposure;
b. Prohibit all grading activities during periods of high wind (over 15 mph);
c. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);
d. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area;
e. Maintain at least 1'-0" of freeboard on haul trucks;
f. Cover inactive storage piles;
g. Sweep streets if visible soil material is carried out from the construction site;
h. Limit the area under construction at any one time.

AQ-2 Prior to commencement of construction activities, the developer and/or contractor shall appoint a construction foreman to act as site monitor to ensure that the dust control measures are implemented. Evidence of implementation shall be submitted in written form to the Monterey County Resource Management Agency Planning Director within three days of commencement of grading, and

monthly thereafter as long as grading occurs. In addition, a publicly-visible sign written in English and Spanish with the telephone number and person to contact regarding dust complaints should be posted and continuously maintained at the project site during grading and construction activities. This person shall respond and take corrective action within 48 hours of receipt of any dust-related complaints. The phone number of the air district shall also be visible to ensure compliance with rule 402 (nuisance).

Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce dust emissions generated by construction activities that could contribute to the air basin non-attainment status. Therefore, with the implementation of these mitigation measures, dust emissions impacts would be reduced to a less than significant level.

IMPACT Exposure of Sensitive Receptors to Construction Dust and Diesel Exhaust Emissions (Less than Significant with Mitigation)

Construction activities associated with the proposed project would likely involve use of heavy-duty off-road equipment and large trucks that use diesel fuel and emissions of diesel particulate matter. The proposed project would expose sensitive receptors to criteria air pollutant emissions from construction dust, off-road equipment, and from trucks hauling debris and delivering materials during construction activities. There are no hospitals, convalescent homes or schools in the immediate vicinity of the project site. However, potential sensitive receptors are located immediately to the east of the site in the existing residential neighborhood, commonly known as Las Palmas Phase 1. During construction activities on the project site, these sensitive receptors could be exposed to substantial PM_{10} and equipment exhaust emissions. This is considered a potentially significant adverse environmental impact. Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce dust emissions generated by construction activities that could affect nearby residences. Implementation of the following mitigation measure would reduce construction equipment exhaust emissions from older equipment and vehicles (NOx and diesel particulate matter) to less than significant.

Mitigation Measure

AQ-3 Prior to the onset of site preparation, grading and construction activities, the project applicant(s) or developer(s) shall require in construction contracts that all off-road construction vehicles and all construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. The developer shall reduce nitrogen oxides exhaust and particulate matter emissions by implementing the following measures prior to the start of construction:

- Contractors shall install temporary electrical service whenever possible to avoid the need for independently-powered equipment (e.g. compressors).

- Signs at the construction site shall be clearly visible to advise that that diesel equipment standing idle for more than two minutes within 200 feet of sensitive receptors shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks may keep their engines running continuously if on-site and staged at least 100 feet away from residential areas.
- Properly tune and maintain equipment for low emissions.
- Stage large diesel powered equipment at least 200 feet from any sensitive land uses (e.g., occupied residences).
- All equipment shall be checked by a certified visible emissions evaluator. All non-road diesel construction equipment shall at a minimum meet Tier 3 emission standards listed in the Code of Federal Regulations Title 40, Part 89, Subpart B, §89.112.

This mitigation measure is consistent with the measures recommended in the air district's air quality guidelines (Table 8-3) that limit the number of vehicles, type of fuel used, hours of daily operation and duration of use. The project applicant(s) or developer(s) shall submit evidence demonstrating compliance with Mitigation Measure AQ-3 to the Monterey County Resources Management Agency Planning Directorfor review and approval. Implementation of Mitigation Measure AQ-3 would reduce and subsequently limit exposure to construction exhaust emissions and ensure that construction emissions are reduced to a less than significant level.

IMPACT Exposures to New Sources of Toxic Air Contaminants (Less than Significant Impact with Mitigation)

The proposed project is a senior living community located adjacent to a residential neighborhood. Diesel exhaust from construction equipment has the potential to emit toxic air contaminants and increase exposures to residents at the adjacent neighborhood.

Mitigation Measure AQ-3 would reduce and limit exposure of toxic air contaminants to nearby residences from construction equipment through implementation of several measures prior to and during construction activities. Implementation of this mitigation measures would ensure that diesel exhaust emissions from construction equipment are reduced to a less than significant level at nearby houses.

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7.0
Biological Resources

This section addresses existing biological resources on the project site; the federal, state, and regional/local regulatory framework pertaining to biological resources; and anticipated impacts to biological resources as a result of the proposed project. This evaluation is based on a reconnaissance field survey conducted by EMC Planning Group biologists; a review of existing scientific literature, aerial photographs, and technical background information; and policies applicable to projects located in the Toro Planning Area of Monterey County.

Information is this section is derived from a variety of sources including:

- *2010 Monterey County General Plan and EIR* (County of Monterey 2010);
- *Toro Area Plan: A Part of the Monterey County General Plan* (County of Monterey 1992);
- California Department of Fish and Wildlife (CDFW) *California Natural Diversity Database* (CDFW 2017);
- California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants* (CNPS 2017);
- U.S. Fish and Wildlife Service (USFWS) *Endangered Species Program* (USFWS 2017a) and *National Wetlands Inventory* (USFWS 2017b); and
- *Shingu Proposed Senior Housing Project on APN 139-211-035-00, Salinas, CA* (Regan Biological and Horticultural Consulting 2011 and 2013).

7.1 Environmental Setting

EMC Planning Group biologists Andrea Edwards and Jessica Wheeler performed a reconnaissance field survey at the site on February 14, 2017 to document existing plant communities and wildlife habitats, and to evaluate the potential for special-status biological resources to occur on the site. Qualitative estimations of plant cover, structure, and spatial changes in species composition were used to determine plant communities and wildlife habitats, and habitat quality and disturbance level were noted.

Existing Conditions

The site is situated on the Spreckels U.S. Geological Survey (USGS) 7.5-minute quadrangle map, and ranges in elevation from about 60 to 210 feet. The site is within the Central Western

California region, Central Coast sub-region, where coastal vegetation predominates, but chaparral and other non-coastal vegetation also occur (Baldwin 2012). The climate in the area is Mediterranean, with warm and dry summers, and winters tending to be cool and wet. Most of the annual rainfall occurs between the months of December and March.

The site is surrounded by residential development to the east/southeast, open fields used for cattle grazing to the west/southwest, and agricultural fields to the north past River Road. The Salinas River is located northeast of the site, beyond the agricultural fields and residential development. Ornamental (landscaped) vegetation is present through much of the development footprint consisting of many non-native gum trees (*Eucalyptus* sp.) and a few planted Monterey cypresses (*Hesperocyparis macrocarpa*); non-native ornamental shrubs such as prostrate acacia (*Acacia redolens*) are also present near the site entrance/access road.

Most of the site supports non-native grassland dominated by slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), and barley (*Hordeum murinum*); other prevalent non-native species include field mustard (*Brassica rapa*), tocalote (*Centaurea melitensis*), white sweetclover (*Melilotus alba*), cut-leaved plantain (*Plantago coronopus*), and milk thistle (*Silybum marianum*). Various native wildflowers and other herbaceous plants occur seasonally in the grassland habitat at low densities. Scattered native shrubs are also present in some areas including coyote brush (*Baccharis pilularis*), western poison oak (*Toxicodendron diversilobum*), California sagebrush (*Artemisia californica*), and toyon (*Heteromeles arbutifolia*). Mature native coast live oaks (*Quercus agrifolia*) are present on the hillsides outside the development area. Figure 7-1, Habitat Map, displays existing conditions of the project site.

Bird species observed on the site or expected to utilize the habitat include red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), bushtit (*Psaltriparus minimus*), Anna's hummingbird (*Calypte anna*), golden-crowned sparrow (*Zonotrichia atricapilla*), downy woodpecker (*Picoides pubescens*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), and California scrub jay (*Aphelocoma californica*). Mammal species observed on the site or expected to utilize the habitat include California vole (*Microtus californicus*), Botta's pocket gopher (*Thomomys bottae*), striped skunk (*Mephitis mephitis*), California ground squirrel (*Spermophilus beecheyi*), and raccoon (*Procyon lotor*). Reptile species expected in this habitat include western fence lizard (*Sceloporus occidentalis*), terrestrial garter snake (*Thamnophis elegans*), and gopher snake (*Pituophis melanoleucus*).

Special-Status Species

Special-status species in this report are those listed as Endangered, Threatened, or Rare, or as Candidates for listing by the USFWS or CDFW under the state and/or federal Endangered Species Acts. The special-status designation also includes CDFW Species of Special Concern and Fully Protected species, CNPS Rare Plant Rank 1B and 2B species, and other locally rare species that meet the criteria for listing as described in Section 15380 of CEQA Guidelines.

Source: Monterey County GIS 2016, Google Earth 2017

Figure 7-1
Habitat Map

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Special-status species are generally rare, restricted in distribution, declining throughout their range, or have a critical, vulnerable stage in their life cycle that warrants monitoring.

A search of the CDFW *California Natural Diversity Database* was conducted for the Marina, Salinas, Natividad, Seaside, Spreckels, Chualar, Mount Carmel, Carmel Valley, and Rana Creek USGS quadrangles in order to evaluate potentially occurring special-status plant and wildlife species in the project vicinity (CDFW 2017). Records of occurrence for special-status plants were reviewed for those same USGS quadrangles in the CNPS *Inventory of Rare and Endangered Plants* (CNPS 2017). A USFWS *Endangered Species Program* threatened and endangered species list was also generated for Monterey County (USFWS 2017).

Table 7-1, Special-Status Plant Species with Potential to Occur in Vicinity, and Table 7-2, Special-Status Wildlife Species with Potential to Occur in Vicinity, show special-status species documented within the project vicinity, their listing status and suitable habitat description, and their potential to occur on the site. Discussion of special-status species with potential to occur on the site (or otherwise requiring special explanation) follows the tables.

Special-Status Plants

The on-site non-native grassland provides marginally suitable habitat for five special-status plant species; occurrence details including blooming periods for each species are presented in Table 3.7-1. These CNPS Rare Plant Rank 1B species have low potential to occur on the site, and are considered Rare, Threatened, or Endangered in California and elsewhere by the CNPS. The species include Congdon's tarplant (*Centromadia parryi* spp. *congdonii*), fragrant fritillary (*Fritillaria liliacea*), Hickman's onion (*Allium hickmanii*), Hutchinson's larkspur (*Delphinium hutchinsoniae*), and Santa Cruz microseris (*Stebbinsoseris decipiens*). These plants are all herbaceous and therefore typically only observable during their blooming periods. However, these species are not expected to occur because they were not observed during past biological and focused plant surveys conducted on the project site (Regan Biological and Horticultural Consulting 2011, 2013, and 2017).

California Tiger Salamander

California tiger salamander (*Ambystoma californiense*) is a federally and state-listed Threatened species. The project site is not located within federally designated critical habitat for this species. The California tiger salamander is dependent on small shallow bodies of water for breeding. It can be found in grasslands, most frequently within 400 feet of breeding pools or ponds where California ground squirrels (*Spermophilus beecheyi*) are prevalent and active. California tiger salamanders will occupy the burrows of the ground squirrels during summer and fall months, emerging to move toward breeding sites when the rainy season commences. They typically disperse to burrows and other hiding places in oak woodlands and grasslands within a quarter mile or less by early summer.

Table 7-1 Special-Status Plant Species with Potential to Occur in Vicinity

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Alkali milk-vetch *(Astragalus tener* var. *tener)*	--/--/1B.2	Alkaline sites in playas, valley and foothill grassland (on adobe clay), and vernal pools; elevation 1-60m. Blooming period: March – June.	Not expected. No suitable habitat found on the site.
Carmel Valley bush-mallow *(Malacothamnus palmeri* var. *involucratus)*	--/--/1B.2	Chaparral, cismontane woodland, and coastal scrub; elevation 30-1100m. Blooming period: May – October.	Not expected. No suitable habitat found on the site.
Carmel Valley malacothrix *(Malacothrix saxatilis* var. *arachnoidea)*	--/--/1B.2	Rocky sites in chaparral; elevation 25-335m. Blooming period: March – December.	Not expected. No suitable habitat found on the site.
Choris' popcorn-flower *(Plagiobothrys chorisianus* var. *chorisianus)*	--/--/1B.2	Mesic sites in chaparral, coastal scrub, and coastal prairie; elevation 15-100m. Blooming period: March – June.	Not expected. No suitable habitat found on the site.
Congdon's tarplant *(Centromadia parryi* spp. *congdonii)*	--/--/1B.1	Valley and foothill grassland (alkaline); elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas. Blooming period: June – November.	Not expected; not observed during focused plant surveys.
Contra Costa goldfields *(Lasthenia conjugens)*	FE/--/1B.1	Wet areas in cismontane woodland, playas (alkaline), valley and foothill grassland, and vernal pools; elevation 0-470m. Blooming period: March – June.	Not expected. No suitable habitat found on the site.
Eastwood's goldenbush *(Ericameria fasciculata)*	--/--/1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, and coastal scrub/sand. Blooming period: July – October.	Not expected. No suitable habitat found on the site.
Fragrant fritillary *(Fritillaria liliacea)*	--/--/1B.2	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine substrate; various soils reported though usually clay in grassland; elevation 3-410m. Blooming period: February – April.	Not expected; not observed during focused plant surveys.
Hickman's onion *(Allium hickmanii)*	--/--/1B.2	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland, and coastal prairie; prefers sandy loam, damp ground, and vernal swales; elevation 20-200m. Blooming period: April – May.	Not expected; not observed during focused plant surveys.
Hooked popcorn-flower *(Plagiobothrys uncinatus)*	--/--/1B.2	Chaparral (sandy), cismontane woodland, and valley and foothill grassland; prefers sandstone outcrops and canyon sides, often in burned or disturbed areas; elevation 300-730m. Blooming period: April – May.	Not expected. No suitable habitat found on the site.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Hooker's manzanita *(Arctostaphylos hookeri* ssp. *hookeri)*	--/--/1B.2	Sandy soils in coastal scrub, chaparral, and closed-cone forest habitats; elevation 45-215m. Blooming period: February – April.	Not expected. No suitable habitat found on the site.
Hospital Canyon larkspur *(Delphinium californicum* ssp. *interius)*	--/--/1B.2	Cismontane woodland and chaparral, in wet, boggy meadows, openings in chaparral, and in canyons; elevation 225-1060m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Hutchinson's larkspur *(Delphinium hutchinsoniae)*	--/--/1B.2	Broadleaved upland forest, chaparral, coastal prairie, and coastal scrub; elevation 0-400m. Blooming period: March – June.	Not expected; not observed during focused plant surveys.
Jolon clarkia *(Clarkia jolonensis)*	--/--/1B.2	Cismontane woodland, chaparral, and coastal scrub; elevation 20-660m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Kellogg's horkelia *(Horkelia cuneata* var. *sericea)*	--/--/1B.1	Closed-cone coniferous forest, maritime chaparral, and coastal scrub, in sandy or gravelly openings; elevation 10-200m. Blooming period: April – September.	Not expected. No suitable habitat found on the site.
Legenere *(Legenere limosa)*	--/--/1B.1	In beds of vernal pools; elevation 1-880m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Marsh microseris *(Microseris paludosa)*	--/--/1B.2	Mesic sites in closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland; elevation 5-300m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Menzies's wallflower *(Erysimum menziesii)*	FE/SE/1B.1	Coastal dunes. Known only from Mendocino and Monterey counties, localized on dunes and coastal strand; elevation 0-35m. Blooming period: March – June.	Not expected. No suitable habitat found on the site.
Monterey gilia *(Gilia tenuiflora* ssp. *arenaria)*	FE/ST/1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub; elevation 0-45m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Monterey pine *(Pinus radiata)*	--/--/1B.1	Closed-cone coniferous forest and cismontane woodland; elevation 25-185m. Evergreen.	Not expected. No suitable habitat found on the site. A few ornamental pines have been planted on the site.
Monterey spineflower *(Chorizanthe pungens* var. *pungens)*	FT/--/1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; elevation 3-450m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Northern curly-leaved monardella *(Monardella sinuata* ssp. *nigrescens)*	--/--/1B.2	Sandy soils in coastal dunes, coastal scrub, chaparral, and lower montane coniferous forest; elevation 0-300m. Blooming period: April – September.	Not expected. No suitable habitat found on the site.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Oregon meconella *(Meconella oregana)*	--/--/1B.1	Open, moist places in coastal prairie and coastal scrub; elevation 250-500m. Blooming period: March – April.	Not expected. No suitable habitat found on the site.
Pacific Grove clover *(Trifolium polyodon)*	--/SR/1B.1	Mesic sites in closed-cone coniferous forest, coastal prairie, meadows and seeps, and valley and foothill grassland; elevation 5-120m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Pajaro manzanita *(Arctostaphylos pajaroensis)*	--/--/1B.1	Sandy soils in chaparral; elevation 30-760m. Blooming period: December – March.	Not expected. No suitable habitat found on the site; this perennial shrub not observed.
Pine rose *(Rosa pinetorum)*	--/--/1B.2	Closed-cone coniferous forest; elevation 2-300m. Blooming period: May – July.	Not expected. No suitable habitat found on the site.
Pink Johnny-nip *(Castilleja ambigua* var. *insalutata*)	--/--/1B.1	Coastal bluff scrub and coastal prairie; elevation 0-100m. Blooming period: May – August.	Not expected. No suitable habitat found on the site.
Pinnacles buckwheat *(Eriogonum nortonii)*	--/--/1B.3	Chaparral, and valley and foothill grassland; sandy sites; often on recent burns; elevation 300-975m. Blooming period: May – June.	Not expected. No suitable habitat found on the site.
Point Reyes horkelia *(Horkelia marinensis)*	--/--/1B.2	Sandy sites in coastal dunes, coastal prairie, and coastal scrub; elevation 5-755m. Blooming period: May – September.	Not expected. No suitable habitat found on the site.
Robust spineflower *(Chorizanthe robusta* var. *robusta)*	FE/--/1B.1	Sandy or gravelly openings in cismontane woodland, coastal dunes, and coastal scrub; prefers sandy terraces and bluffs or loose sand; elevation 3-300m. Blooming period: April – July.	Not expected. No suitable habitat found on the site.
Round-leaved filaree *(California macrophylla)*	--/--/1B.2	Clay sites in cismontane woodland, and valley and foothill grassland; elevation 15-1200m. Blooming period: March – May.	Not expected. No suitable habitat found on the site.
Sand-loving wallflower *(Erysimum ammophilum)*	--/--/1B.2	Sandy openings in maritime chaparral, coastal dunes, and coastal scrub; elevation 0 – 60m. Blooming period: February – June.	Not expected. No suitable habitat found on the site.
Sandmat manzanita *(Arctostaphylos pumila)*	--/--/1B.2	Sandy openings in closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub; elevation 30-730m. Blooming period: February – May.	Not expected. No suitable habitat found on the site; this perennial shrub not observed.
Santa Cruz clover *(Trifolium buckwestiorum)*	--/--/1B.1	Mesic sites in broadleaved upland forest, cismontane woodland, and coastal prairie; prefers moist grassland and gravelly margins; elevation 105-610m. Blooming period: April – October.	Not expected. No suitable habitat found on the site.

Species	Status (Federal/ State/CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Santa Cruz microseris *(Stebbinsoseris decipiens)*	--/--/1B.2	Open areas in broadleaved upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; sometimes on serpentine substrates; elevation 10-500m. Blooming period: April – May.	Not expected; not observed during focused plant surveys.
Santa Lucia bedstraw *(Galium clementis)*	--/--/1B.3	Montane coniferous forest. Forms soft mats in shady rocky patches, on granite or serpentine, mostly on exposed peaks; elevation 1130-1780m. Blooming period: May – July.	Not expected. No suitable habitat found on the site.
Santa Lucia bush-mallow *(Malacothamnus palmeri* var. *palmeri)*	--/--/1B.2	Chaparral. Prefers dry rocky slopes, mostly near summits, but occasionally extends down canyons to the sea; elevation 60-365m. Blooming period: May – July.	Not expected. No suitable habitat found on the site.
Seaside bird's-beak *(Cordylanthus rigidus* ssp. *littoralis)*	--/SE/1B.1	Sandy often disturbed sites in closed-cone coniferous forest, maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub; elevation 0-215m. Blooming period: May – October.	Not expected. No suitable habitat found on the site.
Tidestrom's lupine *(Lupinus tidestromii)*	FE/SE/1B.1	Partially stabilized dunes, immediately near the ocean; elevation 0-3m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Toro manzanita *(Arctostaphylos montereyensis)*	--/--/1B.2	Sandy areas in maritime chaparral, cismontane woodland, and coastal scrub; elevation 30-730m. Blooming period: February – March.	Not expected. No suitable habitat found on the site; this perennial shrub not observed.
Umbrella larkspur *(Delphinium umbraculorum)*	--/--/1B.3	Mesic sites in cismontane woodland; elevation 400-1600m. Blooming period: April – June.	Not expected. No suitable habitat found on the site.
Vernal pool bent grass *(Agrostis lacuna-vernalis)*	--/--/1B.1	Vernal pools (mima mounds); elevation 115-145m.	Not expected. No suitable habitat found on the site.
Yadon's rein orchid *(Piperia yadonii)*	FE/--/1B.1	Sandy sites in coastal bluff scrub, closed-cone coniferous forest, and maritime chaparral; elevation 10-510m. Blooming period: May – August.	Not expected. No suitable habitat found on the site.

Sources: CDFW 2017, CNPS 2017, USFWS 2017, EMC Planning Group 2017

Listing Status Codes:

Federal (USFWS)

FE - Listed as Endangered under the Federal Endangered Species Act.

FT - Listed as Threatened under the Federal Endangered Species Act.

FC - Candidate for listing under the Federal Endangered Species Act.

State (CDFW)

SE - Listed as Endangered under the California Endangered Species Act.

ST - Listed as Threatened under the California Endangered Species Act.

SR - Listed as Rare under the California Endangered Species Act.

SC - Candidate for listing under the California Endangered Species Act.

CNPS Rare Plant Ranks and Threat Code Extensions

1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.

2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.

.1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).

.2: Fairly endangered in California (20-80% occurrences threatened).

.3: Not very threatened in California (less than 20% of occurrences threatened low degree and immediacy of threat or no current threats known).

Table 7-2 Special-Status Wildlife Species with Potential to Occur in Vicinity

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
American badger *(Taxidea taxus)*	--/SSC	Most abundant in drier, open stages of shrub, forest, and herbaceous habitats. Needs sufficient food and open, uncultivated ground with friable soils to dig burrows. Preys on burrowing rodents.	Low potential to occur. Marginally suitable habitat found on the site.
Bank swallow *(Riparia riparia)*	--/ST	Highly colonial species that nests in alluvial soils along rivers, streams, lakes, and ocean coasts. Nesting colonies only occur in vertical banks or bluffs of friable soils at least one meter tall, suitable for burrowing with some predator deterrence values.	Not expected. No suitable habitat found on the site.
Bay checkerspot butterfly *(Euphydryas editha bayensis)*	FT/--	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Castilleja densiflora* and *C. exserta* are secondary host plants.	Not expected. No suitable habitat found on the site.
Black legless lizard *(Anniella pulchra nigra)*	--/SSC	Moist, warm habitats with loose soil for burrowing and prostrate plant cover in beaches, chaparral, pine-oak woodland, or riparian areas.	Not expected. No suitable habitat found on the site.
Burrowing owl *(Athene cunicularia)*	--/SSC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available small mammal burrows.	Low potential to occur. Marginally suitable habitat found on the site.
California red-legged frog *(Rana draytonii)*	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well-oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Not expected. No suitable habitat found on the site.
California tiger salamander *(Ambystoma californiense)*	FT/ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding.	Not expected. No suitable habitat found on the site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Coast horned lizard *(Phrynosoma blainvillii)*	--/SSC	Arid grassland and scrubland habitats; prefers lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burrowing, and abundant supply of ants and other insects for feeding.	Not expected. No suitable habitat found on the site.
Coast Range newt *(Taricha torosa)*	--/SSC	Coastal drainages; lives in terrestrial habitats and can migrate over one km to breed in ponds, reservoirs, and slow-moving streams.	Not expected. No suitable habitat found on the site.
Foothill yellow-legged frog *(Rana boylii)*	--/SSC	Partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Requires at least some cobble-sized substrate for egg-laying and 15 weeks of available water to attain metamorphosis.	Not expected. No suitable habitat found on the site.
Monterey dusky-footed woodrat *(Neotoma macrotis luciana)*	--/SSC	Forest habitats of moderate canopy and moderate to dense understory. Also chaparral habitats. Nests constructed of grass, leaves, sticks, feathers, etc. Population may be limited by availability of nest materials.	Moderate potential to occur. Three potential nest sites identified during the survey.
Silvery legless lizard *(Anniella pulchra pulchra)*	--/SSC	Sandy or loose loamy soils under sparse vegetation; moist soils.	Not expected. No suitable habitat found on the site.
Smith's blue butterfly *(Euphilotes enoptes smithi)*	FE/--	Coastal dunes and coastal sage scrub. Host plants include *Eriogonum latifolium* and *E. parvifolium* for larval and adult stages.	Not expected. No suitable habitat found on the site.
Steelhead *(Oncorhynchus mykiss irideus)*	FT/--	Coastal streams with clean spawning gravel. Requires cool water and pools. Needs migratory access between natal stream and ocean. USFWS-designated critical habitat for this species is present northeast of the site along the Salinas River.	Not expected. No suitable habitat found on the site.
Swainson's hawk *(Buteo swainsoni)*	--/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or agricultural fields supporting rodent populations.	Not expected. No suitable habitat found on the site. Outside of known range for species.
Tidewater goby *(Eucyclogobius newberryi)*	FE/SSC	Brackish water habitats; found in shallow lagoons and lower stream reaches in still but not stagnant water with high oxygen levels.	Not expected. No suitable habitat found on the site.

Species	Status (Federal/State)	Suitable Habitat Description	Potential to Occur on Project Site
Townsend's big-eared bat *(Corynorhinus townsendii)*	--/SSC	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Not expected. No suitable habitat found on the site.
Tricolored blackbird *(Agelaius tricolor)*	--/SC&SSC	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	Not expected. No suitable habitat found on the site.
Two-striped garter snake *(Thamnophis hammondii)*	--/SSC	Coastal California up to 7,000 feet in elevation. Highly aquatic, found in or near permanent fresh water, often along streams with rocky beds and riparian vegetation.	Not expected. No suitable habitat found on the site.
Western pond turtle *(Emys marmorata)*	--/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs), and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	Not expected. No suitable habitat found on the site.
Western red bat *(Lasiurus blossevillii)*	--/SSC	Roosts primarily in trees, 2-40 feet above the ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees and open areas for foraging.	Low potential to occur. Marginally suitable roosting habitat found on the site. Known to occur in the project vicinity.
Western snowy plover *(Charadrius alexandrinus nivosus)*	FT/SSC	Sandy beaches, salt pond levees, shores of large alkali lakes; needs sandy, gravelly, or friable soils for nesting.	Not expected. No suitable habitat found on the site.

Sources: CDFW 2017, USFWS 2017, EMC Planning Group 2017

Listing Status Codes:

Federal (USFWS)

FE - Listed as Endangered under the Federal Endangered Species Act.

FT - Listed as Threatened under the Federal Endangered Species Act.

FC - Candidate for listing under the Federal Endangered Species Act.

State (CDFW)

SE - Listed as Endangered under the California Endangered Species Act.

ST - Listed as Threatened under the California Endangered Species Act.

SC - Candidate for listing under the California Endangered Species Act.

SFP - CDFW Fully Protected species under California Fish and Game Code.

SSC - CDFW Species of Special Concern.

The project site does not contain habitat suitable for California tiger salamander breeding. CDFW records indicate that there are no known occurrences of California tiger salamander within 2.5 miles of the site. There are no ponds or wetted areas on the site. The ditch that runs along the eastern edge of the property is outside the project boundary and did not support standing water at the time of the survey, even after extremely heavy rains this season (winter 2015-2016). The ditch also appears to be sprayed with herbicides, as vegetation observed in this area was yellow, in contrast to surrounding vegetation. There were very few California ground squirrel burrows observed in the grassland areas, and California tiger salamander is not expected to utilize the site for upland refuge habitat.

California Red-Legged Frog

California red-legged frog (*Rana draytonii*) is federally listed as Threatened and is a California Species of Special Concern. The project site is not located within federally designated critical habitat for this species. California red-legged frog is California's largest native frog, and is generally restricted to riparian and lacustrine (lake) habitats. This species prefers deep, still pools, usually greater than two feet in depth, in creeks, rivers or lakes below 5,000 feet in elevation. Breeding habitats require freshwater emergent vegetation or thick riparian vegetation, especially willow thickets adjacent to shorelines. California red-legged frogs can survive in seasonal bodies of water that dry up for short periods if a permanent water body or dense vegetation is nearby. They can move considerable distances overland, with dispersal occurring predominantly within creek drainages. Individuals are often found during the summer in foraging habitat not suitable for breeding, and therefore are presumed to move seasonally between summer foraging and winter breeding habitats.

The project site does not contain habitat suitable for California red-legged frog breeding. CDFW records indicate that there are no known occurrences of California red-legged frog within 2.5 miles of the site. As described above, there are no ponds or wetted areas on the site. There are very few California ground squirrel burrows observed in the grassland areas, and California red-legged frog is not expected to utilize the site for upland refuge habitat.

American Badger

American badger (*Taxidea taxus*) is a California Species of Special Concern. It is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast area. Typical habitats include drier open stages of most shrub, forest, and herbaceous habitats with friable soils suitable for burrows. Prey species include fossorial rodents such as rats, mice, chipmunks, ground squirrels, and pocket gophers. Badger diet shifts seasonally depending on the availability of prey and may also include reptiles, insects, earthworms, eggs, birds, and carrion. American badger was recorded in 1992 approximately two miles from the project site. Badgers have been well documented in this part of Monterey

County from the former Fort Ord, Toro Park, and many cattle ranches in the Sierra de Salinas and Santa Lucia range valleys. The project site, however, contains marginally suitable habitat and prey for this species.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a California Species of Special Concern. Burrowing owls live and breed in burrows in the ground, especially in abandoned California ground squirrel burrows. Optimal habitat conditions include large open, dry and nearly level grasslands or prairies with short to moderate vegetation height and cover, areas of bare ground, and populations of burrowing mammals. This species is known to occur about four miles northeast of the site on the Salinas Municipal Airport property. The project site's non-native grassland provides marginally suitable foraging habitat for burrowing owl, and a few scattered small mammal burrows on the site could be utilized for nesting habitat. Burrowing owl has low potential to occur on the site.

Monterey Dusky-Footed Woodrat

Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*) is a California Species of Special Concern and is typically found within dense chaparral or oak woodland habitats with moderately dense understory growth and abundant dead wood available for midden construction. A midden is a small pile or "house" made of sticks, leaves, bones, seeds, etc. gathered by a rodent. Three possible midden locations were identified on the project site during the survey. Two Monterey cypress trees had entrance burrows and grass caches, and one gum tree had a potential stick midden (lacking a visible entrance/fresh scat, though there did appear to be freshly chewed sticks present).

Western Red Bat

Mature trees on the site provide potential roosting habitat for foliage-roosting bats, including the California Species of Special Concern western red bat (*Lasiurus blossevillii*). This species is known to occur in the project region.

Nesting Raptors and Migratory Birds

Many bird species are migratory and fall under the jurisdiction of the Migratory Bird Treaty Act, protections for birds of prey, and/or are considered Fully Protected Species (discussed further in the Regulatory Setting section below). Several avian species were observed at the project site during the reconnaissance field survey, including turkey vulture, red-tailed hawk, American kestrel, golden-crowned sparrow, and downy woodpecker. Additional species may forage at the site, including Cooper's hawk (*Accipiter cooperii*) and golden eagle (*Aquila chrysaetos*). Although no nesting activity was observed during the surveys, there are trees and shrubs present on the project site that could provide suitable nesting habitat for a variety of species, including hawks, owls, and songbirds.

Wildlife Movement

Wildlife movement includes migration (i.e., usually movement one way per season), inter-population movement (i.e., long-term dispersal and genetic flow), and small travel pathways (i.e., daily movement within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main populations, permitting an increase in gene flow among populations. These habitat linkages can extend for miles and occur on a large scale throughout the greater region. Habitat linkages facilitate movement between populations located in discrete locales and populations located within larger habitat areas.

River Road and intensive agricultural row crop production to the north of the site and dense residential development to the south and east of the site likely restricts wildlife movement through the project site. Common mammals such as black-tailed deer (*Odocoileus hemionus columbianus*), black-tailed jackrabbit (*Lepus californicus*), and raccoon may utilize the on-site non-native grasslands for limited wildlife movement. The few oak trees on the property's hillside likely allow more wildlife movement opportunities due to the presence of cover and possible foraging opportunities. However, the hillside area where the few oak trees are located is not proposed for development.

7.2 REGULATORY SETTING

Federal Plans and Regulations

Endangered Species Act

The federal Endangered Species Act of 1973 (known hereafter as the "Act") protects species that the USFWS has listed as "Endangered" or "Threatened." Permits may be required from USFWS if activities associated with a proposed project would result in the "take" of a federally listed species or its habitat. Under the Act, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in "take." "Take" of a listed species is prohibited unless (1) a Section 10(a) permit has been issued by the USFWS or (2) an Incidental Take Statement has been obtained through formal consultation between a federal agency and the USFWS pursuant to Section 7 of the Act.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act of 1989 prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This Act encompasses whole birds, parts of birds, bird nests, and eggs of over 800 native birds, including many common species.

Clean Water Act

Section 404 of the Clean Water Act of 1972 regulates the discharge of dredge and fill material into "Waters of the U.S." including wetlands. Certain natural drainage channels and wetlands are considered jurisdictional "Waters of the U.S." The U.S. Army Corps of Engineers (USACE) is responsible for administering the Section 404 permit program. The agency determines the extent of its jurisdiction as defined by ordinary high water marks on channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions naturally select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 *Corps of Engineers Wetlands Delineation Manual* and the 2006 *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*.

Activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE. Discharge permits are typically issued on the condition that the project proponent agrees to provide compensatory mitigation which results in no net loss of wetland area, function, or value, either through wetland creation, restoration, or the purchase of wetland credits through an approved wetland mitigation bank. In addition to individual project discharge permits, the USACE also issues general nationwide permits applicable for certain activities.

State Plans and Regulations

California Endangered Species Act

Pursuant to the California Endangered Species Act and Section 2081 of the California Fish and Game Code, an Incidental Take Permit from the CDFW is required for projects that could result in the "take" of a state-listed Threatened or Endangered species. "Take" is defined under these laws as an activity that would directly or indirectly kill an individual of a species. If a project would result in the "take" of a state-listed species, then a CDFW Incidental Take Permit, including the preparation of a conservation plan, would be required.

Nesting Birds and Birds of Prey

Sections 3505, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, including their nests or eggs. Birds of prey (the orders Falconiformes and Strigiformes) are specifically protected in California under provisions of the California Fish and Game Code, Section 3503.5. This section of the Code establishes that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code. Disturbance that causes nest abandonment and/or loss of reproductive effort, such as construction during the breeding season, is considered take by the CDFW.

Streambed Alterations

The CDFW has jurisdiction over the bed and bank of natural drainages according to provisions of Sections 1601 through 1603 of the California Fish and Game Code. Diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that support wildlife resources and/or riparian vegetation are subject to CDFW regulations. Activities that would disturb these drainages are regulated by the CDFW; authorization is required in the form of a Streambed Alteration Agreement. Such an agreement typically stipulates measures that will protect the habitat values of the drainage in question.

California Porter-Cologne Water Quality Control Act

Under the California Porter-Cologne Water Quality Control Act, the applicable Regional Water Quality Control Board (RWQCB) may necessitate Waste Discharge Requirements for the fill or alteration of "Waters of the State," which according to California Water Code Section 13050 includes "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB may, therefore, necessitate Waste Discharge Requirements even if the affected waters are not under USACE jurisdiction.

Also, under Section 401 of the Clean Water Act, any activity requiring a USACE Section 404 permit must also obtain a state Water Quality Certification (or waiver thereof) to ensure that the proposed activity will meet state water quality standards. The applicable state RWQCB is responsible for administering the water quality certification program and enforcing National Pollutant Discharge Elimination System (NPDES) permits.

Local Plans and Regulations

County of Monterey General Plan

The *2010 Monterey County General Plan* - Conservation and Open Space (OS) element contains the following goal and policies associated with biological resources that are applicable to the proposed project:

> Goal OS-5: Conserve listed species, critical habitat, habitat and species protected in area plans; avoid, minimize and mitigate significant impacts to biological resources.
>
> Policy OS-5.4: Development shall avoid, minimize, and mitigate impacts to listed species and critical habitat to the extent feasible. Measures may include but are not limited to: clustering lots for development to avoid critical habitat areas, dedications of permanent conservation easements; or, other appropriate means. If development may affect listed species, consultation with United States Fish and Wildlife Service (CDFG) may be required and impacts may be mitigated by expanding the resource

> elsewhere on-site or within close proximity off-site. Final mitigation requirements would be determined as required by law.Policy OS-5.16: A biological study shall be required for any development project requiring a discretionary permit and having 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, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare, or threatened species…
>
> Policy OS-5.25: Occupied nests of statutorily protected migratory birds and raptors shall not be disturbed during the breeding season (generally February 1 to September 15) The county shall consult, or require the developer to consult, with a qualified biologist prior to any site preparation or construction work in order to: determine whether work is proposed during nesting season for migratory birds or raptors, determine whether site vegetation is suitable to nesting migratory birds or raptors, identify any regulatory requirements for setbacks or other avoidance measures for migratory birds and raptors which could nest on the site, and establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of disruption of nesting birds.…

County of Monterey Toro Area Plan

The *Toro Area Plan* is part of the Monterey County General Plan. It contains the following supplemental policy regarding protection of biological resources:

> T-3.7 Removal of healthy, native oak trees in the Toro Planning Area shall be discouraged. An ordinance shall be developed to identify required procedures for removal of these trees. Said ordinance shall take into account fuel modification needed for fire prevention in the vicinity of structures and shall include:
>
> a. Permit requirements.
>
> b. Replacement criteria
>
> c. Exceptions for emergencies and governmental agencies

Monterey County Zoning Ordinance, Title 21

The *Monterey County Zoning Ordinance: Title 21*, Section 21.64.260 – Preservation of Oak and Other Protected Trees, states that "no oak or madrone tree six inches or more in diameter two feet above ground level shall be removed in the …Toro Area Plan areas" without a County-approved permit.

Las Palmas Ranch Specific Plan

3. All structure, including residential, including residential, commercial, recreational and accessory buildings; fences; walls; decks and signs shall require design approval. Approval shall be based upon conformity with the policies of this plan as well as the following specific criteria:

A. Compatibility of external design, materials and colors with existing ground elevations and natural land forms.

B. Conformity of design and location of structures with respect to existing ground elevations and natural land forms.

C. Mitigation of visual impacts from within the development and from major designated view corridors outside of the project.

D. Protection of significant trees and vegetation. Trees over 36" in circumference (four feet above the ground) shall be retained. Where it is necessary to remove such trees for better design or layout, then they shall be replaced on a two for one basis subject to the approval of the Director of Planning.

E. Prevention of erosion, sedimentation and visual impacts resulting from grading, excavation, cutting or filling.

7.3 THRESHOLDS OR STANDARDS OF SIGNIFICANCE

The CEQA Guidelines (Appendix G) indicates that a project may have a significant effect on the environment if it would have any of the effects listed below.

- 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 Wildlife or U.S. Fish and Wildlife Service;
- 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 Wildlife or U.S. Fish and Wildlife Service;
- 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;
- 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;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

The project site does not contain sensitive natural communities or riparian habitat. Though a shallow man-made drainage ditch exists along the eastern edge of the site adjacent to residences, it is not located within the development area, and no wetlands or waterways potentially under regulatory agency jurisdiction would be impacted by the proposed project. Though the project site contains County-regulated oak trees, they are not located within the development area. No habitat conservation plans apply to the project area. No further discussion of these topics is required. The applicable issues for the proposed project (special-status species and wildlife movement) are evaluated in the impact analysis below.

7.4 Environmental Impact Analysis

Special-Status Species

American Badger, Burrowing Owl, Monterey Dusky-Footed Woodrat, and Western Red Bat

Impacts to special-status wildlife species would be a significant adverse environmental impact. If American badger, burrowing owl, Monterey dusky-footed woodrat, and western red bat are present on the project site, construction activities could result in the loss or disruption of individual animals.

Nesting Raptors and Migratory Birds

If nesting birds protected by state and federal regulations are present on or adjacent to the site during site preparation or construction activities, the proposed project may directly result in loss of active nests, or indirectly result in nest abandonment and thereby cause loss of fertile eggs or nestlings. This would be a significant adverse environmental impact. Protected nesting birds, including protected raptor species, have the potential to nest on and adjacent to the project site. Construction activities including vegetation removal and site preparation have potential to impact nesting birds (including raptors) protected under the federal Migratory Bird Treaty Act and California Fish and Game Code if such activities occur during the nesting bird season (February 1 through September 15).

Wildlife Movement

The proposed project would impede to a limited degree the local movement of common wildlife due to habitat loss. However, the site does not function as a regional wildlife

movement corridor or habitat linkage. This is a less than significant adverse environmental impact.

Tree Removal

The proposed project does not include the removal of trees protected by the Monterey County Municipal Code, Chapter 16.60 – Preservation of Oak Trees and Other Protected Trees within the Toro Plan area. Eucalyptus trees proposed for removal on the project site are not native and therefore, are not protected by the county.

7.5 IMPACT SUMMARY AND MITIGATION MEASURES

Anticipated project impacts to special-status biological resources are presented below, along with applicable measures designed to avoid, minimize, and/or mitigate significant impacts.

IMPACT Potential Loss or Disturbance of American Badger (Less than Significant with Mitigation)

If American badger is present on the project site, construction activities could result in the loss or disturbance of individual animals. This would be a significant adverse environmental impact. Implementation of the following mitigation measure would reduce the potential impact to a less-than-significant level.

Mitigation Measure

BIO-1 Prior to the start of construction activities, a qualified Monterey County-approved consulting biologist shall conduct pre-construction surveys of the grassland habitat on the site to identify any potential American badger burrows/dens. These surveys shall be conducted no more than 15 days prior to the start of construction. If a potential American badger burrow/den is found during the surveys, coordination with the CDFW shall be undertaken in order to develop a suitable strategy to avoid impacts to American badger.

After CDFW approval, impacts to active American badger dens shall be avoided by establishing exclusion zones around all active badger dens, within which construction related activities shall be prohibited until denning activities are complete or the den is abandoned. A qualified biologist shall monitor each den once per week in order to track the status of the den and to determine when a den area has been cleared for construction.

The project proponent shall be responsible for the implementation of this mitigation measure, subject to monitoring by the Monterey County Resource Management Agency.

Implementation of this mitigation measure would eliminate the potential impact by requiring pre-construction surveys for American badger burrows/dens, and avoidance of any active dens if present in the development footprint.

IMPACT Potential Loss or Disturbance of Burrowing Owl (Less than Significant with Mitigation)

If burrowing owl is present on or adjacent to the project site, construction activities could result in the loss or disturbance of individual animals. This would be a significant adverse environmental impact. Implementation of the following mitigation measure would reduce the potential impact to a less-than-significant level.

Mitigation Measure

BIO-2 To avoid/minimize impacts to burrowing owls potentially occurring on or adjacent to the project site, the project proponent shall retain a qualified Monterey County-approved consulting biologist to conduct a two-visit (i.e. morning and evening) presence/absence survey at areas of suitable habitat on and adjacent to the project site no less than 14 days prior to the start of construction or ground disturbance activities. Surveys shall be conducted according to methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If these pre-construction "take avoidance" surveys performed during the breeding season (February through August) or the non-breeding season (September through January) locate occupied burrows in or near construction areas, consultation with the CDFW shall occur to interpret survey results and develop a project-specific avoidance and minimization approach.

The project proponent shall be responsible for the implementation of this mitigation measure, subject to monitoring by the Monterey County Resource Management Agency.

Implementation of this mitigation measure would reduce the potential impact by requiring pre-construction surveys for burrowing owl, and consultation with the CDFW to protect individual burrowing owls if they are present on or adjacent to the project site.

IMPACT Potential Loss or Disturbance of Monterey Dusky-Footed Woodrat (Less than Significant with Mitigation)

Three possible woodrat midden locations were identified at the project site during the reconnaissance field survey. Loss or disturbance of woodrats due to midden removal during construction activities would be a significant adverse environmental impact. Implementation of the following mitigation measure would reduce the potential impact to a less-than-significant level.

Mitigation Measure

BIO-3 A qualified Monterey County-approved consulting biologist shall conduct pre-construction surveys for woodrat nests within the development footprint. These surveys shall be conducted no more than 15 days prior to the start of construction. All woodrat middens shall be flagged for avoidance of direct construction impacts where feasible. If impacts cannot be avoided, woodrat middens shall be dismantled no more than three days prior to construction activities starting at each midden location. All vegetation and duff materials shall be removed from three feet around the midden prior to dismantling so that the occupants do not attempt to rebuild. Middens are to be slowly dismantled by hand in order to allow the occupants to disperse.

The project proponent shall be responsible for the implementation of this mitigation measure, subject to monitoring by the Monterey County Resource Management Agency.

Implementation of this mitigation measure would reduce the potential impact by requiring pre-construction surveys for Monterey dusky-footed woodrat middens, and avoidance or dismantling of any middens within the development footprint.

IMPACT Potential Loss or Disturbance of Special-Status Western Red Bat (Less than Significant with Mitigation)

Potential habitat for western red bat occurs in tree foliage within the project site. If special-status bats are present on the site, tree removal and other construction activities could result in the loss of individual animals. This would be a significant adverse environmental impact. Implementation of the following mitigation measure would reduce the potential impact to a less-than-significant level.

Mitigation Measure

BIO-4 Prior to tree removal activities, the project proponent shall retain a qualified Monterey County-approved consulting biologist to conduct a focused survey for bats and potential roosting sites in trees to be removed and trees within 250 feet of the development footprint. These surveys shall be conducted no more than 15 days prior to the start of construction. The surveys can be conducted by visual identification and assumptions can be made on what species is present due to observed visual characteristics along with habitat use, or the bats can be identified to the species level with the use of a bat echolocation detector such as an "Anabat" unit.

If no roosting sites or bats are found, a letter report confirming absence shall be sent to the Monterey County Resource Management Agency and no further mitigation is required.

If bats or roosting sites are found, a letter report and supplemental documents shall be provided to the Monterey County Resource Management Agency prior to grading permit issuance and the following monitoring, exclusion, and habitat replacement measures shall be implemented:

a. If bats are found roosting outside of the nursery season (which is May 1 through October 1), they shall be evicted as described under (b) below. If bats are found roosting during the nursery season, they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or by monitoring the roost after the adults leave for the night to listen for bat pups. If the roost is determined to not be a maternal roost, then the bats shall be evicted as described under (b) below. Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. Therefore, if a maternal roost is present, a 250-foot buffer zone (or different size if determined in consultation with the CDFW) shall be established around the roosting site within which no construction activities including tree removal shall occur until after the nursery season.

b. If a non-breeding bat hibernaculum is found in a tree or snag scheduled for removal, the individuals will be safely evicted, under the direction of a qualified bat biologist and in consultation with the CDFW. Methods could include carefully opening the roosting area by hand to expose the cavity. Removal of the tree or snag shall be conducted no earlier than the following day (i.e., at least one night will be provided between initial disturbance and the tree removal). This action will allow bats to leave during dark hours, which increases their chance of finding new roosts with a minimum of potential predation.

The project proponent shall be responsible for the implementation of this mitigation measure, subject to monitoring by the Monterey County Resource Management Agency.

Implementation of this mitigation measure would reduce the potential impact by requiring pre-construction surveys prior to tree removal activities with avoidance of any bat maternity

roosts or eviction of non-breeding bats if present on or adjacent to the development footprint.

IMPACT Potential Loss or Disturbance of Protected Nesting Birds (Less than Significant with Mitigation)

Protected nesting birds, including raptor species, have potential to nest on and adjacent to the project site during the nesting bird season (February 1 through September 15). If nesting birds protected by state and federal regulations are present on or adjacent to the site during construction activities including vegetation removal and site preparation, the proposed project may directly result in loss of active nests, or indirectly result in nest abandonment and thereby cause loss of fertile eggs or nestlings. This would be a significant adverse environmental impact. Implementation of the following mitigation measure would reduce the potential impact to a less-than significant level.

Mitigation Measure

BIO-5 To avoid possible impacts to nesting birds on and adjacent to the project site, if noise generation, ground disturbance, vegetation and tree removal, including removal of non-native trees, or other construction activities begin during the nesting bird season (February 1 to September 15), or if construction activities are suspended for at least two weeks and recommence during the nesting bird season, then the project proponent shall retain a qualified Monterey County-approved consulting biologist to conduct a pre-construction survey for nesting birds. The survey shall be performed within suitable nesting habitat areas on and adjacent to the site to ensure that no active nests would be disturbed during project implementation. This survey shall be conducted no more than one week prior to the initiation of disturbance or construction activities.

If no active bird nests are detected during the survey, then project activities can proceed as scheduled. However, if an active bird nest of a native species is detected during the survey, then a plan for bird nest avoidance shall be prepared by the qualified biologist to determine and clearly delineate an appropriately sized, temporary protective buffer area around each active nest, depending on the nesting bird species, existing site conditions, and type of proposed disturbance or construction activities. The protective buffer area around an active bird nest is typically 75-250 feet, determined at the discretion of the qualified biologist.

To ensure that no inadvertent impacts to an active bird nest will occur, no disturbance and/or construction activities shall occur within the protective buffer area(s) until the juvenile birds have fledged (left the nest), and there is no evidence of a second attempt at nesting, as determined by the qualified biologist.

The project proponent shall be responsible for implementation of this mitigation measure with oversight by the Monterey County Resource Management Agency. Compliance with this measure shall be documented and submitted to the county.

Implementation of this mitigation measure would eliminate the potential impact by requiring pre-construction surveys for nesting birds, and avoidance of any active nest(s) if present on or adjacent to the development footprint.

IMPACT Impede Movement of Common Wildlife (Less than Significant)

Since the 15.64-acre project is undeveloped, the proposed project, through the construction of new buildings and site improvements, would impede to a limited degree the local movement of common wildlife species due to habitat loss. This, however, is a less than significant environmental impact. Considerable open space areas with similar habitat are immediately adjacent to the west of the project site, and even if this area to the west develops as part of the Ferrini Ranch project, open space areas will be retained that allow the movement of local wildlife species. Since this is a less than significant environmental impact no mitigation measures are required.

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8.0
Greenhouse Gas Emissions

This section of the EIR summarizes the greenhouse gas (GHG) environmental and regulatory setting, identifies climate change impacts from project implementation, and specifies mitigation measures for significant impacts. This analysis is based in part on the results of GHG modeling using the California Emissions Estimator Model (CalEEMod). The CalEEMod results are included in Appendix C. Additional information regarding related regulations and legislation was utilized, as was information from the California Energy Commission and the California Air Resources Board (CARB).

During the Draft EIR's (Notice of Preparation) NOP review period, no comments regarding the greenhouse gas emissions of the proposed project were received. The County's NOP and comment letters on the NOP are included in Appendix B.

8.1 Environmental Setting

Climate Change Science

The international scientific community has concluded with a high degree of confidence that human activities are causing an accelerated warming of the Earth's atmosphere. The resulting changes in climate has serious global implications and, consequently, human activities that contribute to climate change may have a potentially significant effect on the environment. In recent years, concern about climate change and its potential impacts has risen dramatically and that concern has translated into a range of international treaties and national and regional agreements aimed at diminishing the rate that global warming is occurring and potentially halting its environmental effects. The federal government is addressing concerns about climate change through a range of initiatives and regulatory actions. Many states and local agencies, private sector interests, and other public and private interests have also taken initiative to combat climate change. At the state level, California has taken a leadership role in tackling climate change, as evidenced by the programs outlined in the Regulatory Setting section below.

Causes and Effects of Climate Change

The greenhouse effect naturally regulates the Earth's temperature; however, human activity, industrialization and population growth has increased the intensity of the greenhouse effect by releasing increasing amounts of greenhouse gasses GHGs into the atmosphere. GHGs can

remain in the atmosphere for decades. The GHG emissions that are already in the atmosphere will continue to cause climate change for years to come, just as the warming temperatures already being experienced are at least partially the result of emissions produced in the past. Climatic changes are happening now and are projected to increase in frequency and severity before the benefits of GHG emission reductions will be realized. Increased concentrations of GHGs in the atmosphere result in increased air, surface, and ocean temperatures. Many of the effects and impacts of climate change stem from resulting changes in temperature and meteorological responses to those changes.

Rising Temperatures

The Intergovernmental Panel on Climate Change, which includes more than 1,300 scientists from the United States and abroad, estimated that over the last century, global temperatures have increased by about 1.3 degrees Fahrenheit (°F). The Intergovernmental Panel on Climate Change forecasts indicate that global temperatures can be expected to continue to rise between 2.5 and 10°F over the next century. According to the California Climate Adaptation Strategy (California Natural Resources Agency 2009), average state temperatures are currently predicted to increase 1.8 to 5.4°F by 2050 and 3.6 to 9°F by 2100. Some regional models show average temperatures in California increasing as much as 10.8°F. Achieving the low emission scenarios has become unlikely, while the probability of reaching the medium and high scenarios is believed to be more likely.

Locally, Monterey County has already experienced a rise in average temperatures. Winter weather conditions are now of a shorter duration, with warmer temperatures than were typical 30 years ago. As a whole, temperatures in California have already risen 1°F on average over this time period. According to Cal-Adapt, a climate change projection modeling tool developed by California Energy Commission, temperatures in the Monterey County area have historically averaged about 58.1°F. Temperatures in the County are projected to further rise between 2.9 and 4.9°F by 2090, based on average low and high emissions scenarios (California Energy Commission 2016).

Precipitation Levels

Precipitation levels are difficult to predict compared to other indicators of climate change. Annual rain and snowfall patterns vary widely from year to year, especially in California. Generally, higher temperatures increase evaporation and decrease snowfall, resulting in an overall drier climate. On average, projections show little change in total average annual precipitation in California. Furthermore, among several models, precipitation projections do not show any consistent predictable trend for the next century other than the Mediterranean seasonal precipitation pattern is expected to continue, with most precipitation falling during winter from storms originating in the North Pacific. One of the four climate models prepared

by the California Climate Adaptation Strategy (California Natural Resources Agency 2009) projects slightly wetter winters, and another model projects slightly drier winters with a 10 to 20 percent decrease in total annual precipitation. However, even modest changes, particularly decreases, in precipitation would have a significant impact because California ecosystems are conditioned to historical precipitation levels and water resources are nearly fully utilized. In Monterey County, changes in precipitation can have profound effects on the agricultural industry, a major economic contributor to the area.

Water Supply

In conjunction with population growth, climate change is expected to increase pressure on and competition for water resources, further exacerbating already stretched water supplies. Decreasing snowpack and spring stream flows and increasing demand for water from a growing population and hotter climate could lead to increasing water shortages. Water supplies are also at risk from rising sea levels and salt water intrusion. Competition for water between cities, farmers, and the environment is expected to increase.

Anticipated changes to source water conditions include more intense and less predictable storm events, longer drought periods, reduced snowpack at lower elevations, and earlier spring run-off. Changes in source water quantity and quality may therefore impact the treatment necessary to produce potable drinking water. These changes could result in additional required treatment processes and increased costs for treated drinking water in order to avoid potential for human health risk via drinking water consumption.

These affects to water supply are expected to affect communities throughout the globe, including Monterey County communities.

More Frequent and Extreme Storm Events

Extreme weather, in addition to drought, is expected to become more common throughout California. More extreme storm events are expected to increase water runoff to streams and rivers during the winter months, heightening flood risks. Warmer ocean surface temperatures have contributed to warmer and wetter conditions in the Sierra Nevada, increasing flood risk. Strong winter storms may produce “atmospheric rivers” that transport large amounts of water vapor from the Pacific Ocean to the California coast. These atmospheric rivers often persist for days, dropping heavy rain or snow. As the strength of these storms increase and transport increased amounts of precipitation, the risk of flooding is accordingly increased.

Diminished Air Quality

Climate change is expected to exacerbate air quality problems by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation. Higher

temperatures and increased ultraviolet radiation from climate change are expected to facilitate the chemical formation of more secondary air pollutants from ground-level sources. Conversely, decreased precipitation is expected to reduce the amount of particulates cleansed from the air.

While there are variations throughout the state, Californians experience the worst quality air in the nation. More than 90 percent of California's population lives in areas that have ozone or particulate matter levels above the State air quality standard. Incidents of wildfires in nearby foothills and mountain regions have already grown in frequency and severity and are expected to increase, further contributing to air quality problems.

The project site is located in the North Central Coast Air Basin ("air basin"). As discussed in Section 6.0 of this EIR, the air basin is in non-attainment with State mandated thresholds for ozone and suspended particulate matter.

Environmental Protection

Climate change effects will have broad impacts on local and regional ecosystems, habitats, and wildlife as average temperatures increase, precipitation patterns less predictable, and more extreme weather events occur. Species have adapted to natural and more gradual, environmental changes for millions of years, however, species that cannot adapt to foreseeable changes in climate are at risk of extinction. Conversely, other more adaptable species could increase their habitat range. Overall, the risk of extinction could increase for many species. As temperatures increase, California vegetation is also expected to change. Generally, desert and grassland vegetation is projected to increase while forest vegetation is projected to decline. The natural cycle of plant flowering and pollination, as well as the temperature conditions necessary for a thriving locally-adapted agriculture, may also be affected. Perennial crops, such as grapes, may take years to recover. Increased temperatures also provide a foothold for invasive species of weeds, insects, and animals.

Social Vulnerability to Climate Change

The impacts of climate change will not affect people equally. Some people are more likely to be impacted than others. People exposed to the most severe climate-related hazards are often those least able to cope with the associated impacts, due to their limited adaptive capacity. Globally, climate change is expected to have a greater impact on larger populations living in poorer developing countries that rely on natural resources and agricultural systems that will likely be affected by changing climates.

Certain groups in developed countries like the United States will also experience more impacts from climate change than others. People in rural areas are more likely to be affected by climate change impacts, such as droughts or severe storms, compared to their urban

counterparts. However, certain groups living in cities will also be at higher risk than others. People who are at greatest risk for the impacts described earlier in this section include children, the elderly, those with existing health problems (e.g.., obese youth), the socially and/or economically disadvantaged (e.g., households that speak or understand little English, low income households, the unemployed, populations without a high school diploma), those who are less mobile (e.g. living in group quarters, households without a vehicle), and those who work outdoors. Place of residence is another vulnerability indicator, as renters, households without air conditioning, households lacking access to grocery stores, households in treeless areas, and households on impervious land cover are also more vulnerable to climate change impacts.

Health Effects/Illness

As temperatures rise from global warming, the frequency and severity of heat waves will grow and increase the potential for bad air quality days, which can lead to increases in illness and even death due to dehydration, heart attack, stroke and respiratory disease. Additionally, dry conditions can lead to a greater number of wildfires producing smoke that puts people with asthma and respiratory conditions at risk of illness or death.

Higher temperatures and the increased frequency of heat waves are expected to significantly increase heat-related illnesses, such as heat exhaustion and heat stroke, while also exacerbating conditions associated with cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. An increase of 10°F in average daily temperature is associated with a 2.3 percent increase in mortality. During heat waves mortality rates can increase to about nine percent. As temperatures in Monterey County increase, vulnerable populations such as children, the elderly, people with existing illnesses, and people who work outdoors will face the greatest risk of heat-related illness.

Flood Risk

Increased flood frequency and elevated flood risk are expected in California as a result of sea level rise, more intense storm events resulting in increased storm water runoff, and shifts in the seasonal timing of rainfall and snowpack runoff.

Greenhouse Gas Types

GHGs are emitted by both natural processes and human activities. The human-produced GHGs most responsible for global warming and their relative contribution to it are carbon dioxide, methane, nitrous oxide and chlorofluorocarbons. The contribution of these GHGs to the U.S. inventory of GHGs in 2013 is summarized in Table 8-1, GHG Types and Their Contribution to Global Warming.

Table 8-1 GHG Types and Their Contribution to Global Warming

Greenhouse Gas	Percent	Typical Sources
Carbon dioxide (CO_2)	81	Combustion of fuels, solid waste, wood
Methane (CH_4)	11	Fuel production/combustion; livestock, decay of organic materials
Nitrous Oxide (N_2O)	6	Combustion of fuels, solid waste; agricultural and industrial processes
Chlorofluorocarbons (CFCs)	3	Industrial processes

SOURCE: United States Environmental Protection Agency 2017.
NOTES: Percentages reflect weighting for global warming potential.

Greenhouse Gas Global Warming Potentials

Each type of GHG has a different capacity to trap heat in the atmosphere and each type remains in the atmosphere for a particular length of time. The ability of a GHG to trap heat is measured by an index called the global warming potential expressed as carbon dioxide equivalent. Carbon dioxide is considered the baseline GHG in this index and has a global warming potential of one. Methane has a global warming potential of 21 times that of carbon dioxide and nitrous oxide has a global warming potential of 310 times that of CO_2. The families of chlorofluorocarbons, hydrofluorocarbons and perfluorocarbons have a substantially greater global warming potential than other GHGs, generally ranging from approximately 1,300 to over 10,000 times that of CO_2. See Table 8-2, GHG Global Warming Potentials, below, for reference on the global warming potential of various GHGs.

Table 8-2 GHG Global Warming Potentials

Greenhouse Gas	Atmospheric Lifetime (Years)	Global Warming Potential
Carbon Dioxide CO2	50-200	1
Methane CH4	12 (+/- 3)	21
Nitrous Oxide N2O	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC Tetrafluoromethane CF4	50,000	6,500
PFC Hexafluoroethane C2F6	10,000	9,200
Sulfur Hexaflouride SF6	3,200	23,900

SOURCE: United Nations Framework Convention on Climate Change2017

While CO_2 represents the vast majority of the total volume of GHGs released into the atmosphere, the release of even small quantities of other types of GHGs can be significant for their contribution to climate change.

The GHG volume produced by a particular source is often expressed in terms of carbon dioxide equivalent (CO_2e). Carbon dioxide equivalent describes how much global warming a given type of GHG will cause, with the global warming potential of CO_2 as the base reference. It is useful because it allows comparisons of the impact from many different GHGs, such as methane, perfluorocarbons or nitrous oxide. If a project is a source of several types of GHGs, their individual global warming potential can be standardized and expressed in terms of CO_2e.

Inventories of Greenhouse Gases

California GHG Emissions Inventory

California is a substantial contributor of global greenhouse gases. Based on (California Air Resources Board) CARB's most recent state GHG inventory, a net of about 459.28 million tons of CO_2e were generated in 2013 (California Air Resources Board 2015). In 2013, about 37 percent of all GHG gases emitted in the state came from the transportation sector. Industrial uses and electric power generation (in-state generation and out-of-state generation for imported electricity) were the second and third largest categories at about 23 percent and 20 percent, respectively. The commercial and residential use sectors combined to generate about 12 percent of the 2013 emissions, while the agricultural sector contributed about eight percent.

Monterey County GHG Emissions Inventory

Greenhouse gas emissions generated in Monterey County represent a small fraction of the statewide emissions inventory. In 2006, the county conducted a GHG emissions inventory as part of its General Plan update (Monterey County 2010). In 2006, 1,394,404 metric tons of CO_2e was estimated to have been generated in the county (Monterey County 2008, Table 4.3-11). As with most cities and counties in the state, the primary source of GHG emissions is the transportation sector (cars and trucks). These on-road sources of emissions accounted for about 46 percent of all emissions generated in the county compared with the approximately 15 percent of total emissions created by electricity generation, 14 percent by industrial processes, 14 percent from combustion of natural gas, eight percent from agricultural equipment fuel use, and two percent from landfill emissions.

Policies are included in the county's 2010 general plan that serve as mitigation for potential GHG impacts related to build-out of the plan. The County of Monterey updated the municipal inventory component of the 2006 inventory in 2013 pursuant to that mitigation and Policy OS-10.15 of the general plan to address GHG emissions from county operations (*Monterey County's Municipal Climate Action Plan: Greenhouse Gas Reduction Plan for County Operations* June 2013). The *Monterey County's Municipal Climate Action Plan: Greenhouse Gas*

Reduction Plan for County Operations serves as one component of the county's larger, community-wide climate action plan.

Existing Sources of GHG Emissions within the Project Site

The project site is vacant and there is no current use of the site aside from a portion used for occasional grazing. There are no notable existing baseline GHG emission sources. The site does not contain important sources of sequestered carbon such as trees that would be lost as a result of its conversion to urban use.

8.2 REGULATORY SETTING

State and regional policies and regulations pertaining to climate change are summarized below. These provide context for how climate change is being addressed and identify policy and regulatory actions whose implementation would lessen the contribution of the proposed project to climate change. The federal government is also taking significant regulatory steps toward addressing climate change. Generally, California legislation and regulations are as comprehensive, or are more comprehensive, than federal actions; therefore, this regulatory section focuses on state activity.

State

California Assembly Bill No. 1493 ("Pavley I Rule")

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks by improving fuel efficiency requirements. Pavley I requirements apply to these vehicles in the model years 2009 to 2016. CARB has estimated the effectiveness of Pavley I standards on vehicle emission factors and estimates that these standards will reduce GHG emissions in the transportation sector by 20 percent in 2020 and 25 percent in 2035 above and beyond a scenario without these standards.

Executive Order S-03-05

The Governor signed this executive order on June 1, 2005. It recognizes the anticipated effects of climate change, such as increased temperatures, reduced Sierra Nevada snowpack, worsened air quality, and sea level rise among others. The executive order includes GHG emission reduction targets for the purpose of combating these effects. GHG emissions are to be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

California Assembly Bill 32 (Global Warming Solutions Act)

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting,

and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020 consistent with Executive Order S-03-05. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

Executive Order S-01-07 Low Carbon Fuel Standard

Issued on January 18, 2007, this order mandates that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and that a Low Carbon Fuel Standard for transportation fuels be established. The Low Carbon Fuel Standard has been developed and implemented by CARB. CARB has incorporated the GHG emissions reductions accruing to the Low Carbon Fuel Standard into the 2014 Scoping Plan as described above.

Executive Order S-13-08

This Executive Order enhances the state's management of climate impacts from sea level rise, increased temperatures, shifting precipitation and extreme weather events. In December 2009, the California Natural Resources Agency released the 2009 California Climate Adaptation Strategy Discussion Draft. The document provides interim guidance to state and local agencies on planning for the impacts and risks of climate change.

California Senate Bill 375 (Sustainable Communities Strategy)

This 2008 bill sets forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for each metropolitan region for the years 2020 and 2035. Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the Sustainable Communities Strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the Sustainable Communities Strategy, then an alternative planning strategy must be developed which demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

AMBAG is the metropolitan planning organization responsible for preparing the sustainable communities strategy. The Sustainable Communities Strategy is embedded in AMBAG's *2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito, and Santa Cruz Counties* (Association of Monterey Bay Area Governments 2014) (MTP/SCS). The environmental effects of implementing the MPT/SCS were evaluated in the *Final Environmental Impact Report for the 2035 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional*

Transportation Plans for Monterey, San Benito, and Santa Cruz Counties (Association of Monterey Bay Area Governments 2014). The Sustainable Communities Strategy sets forth a forecasted development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, is intended to reduce GHG emissions from passenger vehicles and light duty trucks to achieve the regional GHG reduction targets set by CARB.

CARB set targets for the AMBAG region as "not to exceed 2005 emissions levels" by 2020 and a five percent reduction from 2005 levels by 2035. AMBAG adopted these standards in September 2010. These targets apply to the AMBAG region as a whole for all on-road light duty trucks and passenger vehicles emissions, and not to individual cities or sub-regions. Therefore, AMBAG, through the 2035 MTP/SCS, must maintain or reduce these levels to meet the 2020 target and reduce these levels to meet the 2035 targets.

SB 375 specifically states that local governments retain their autonomy to develop and adopt local General Plan policies and land uses. The 2035 MTP/SCS provides a regional policy foundation that local governments may build upon, if they so choose. The 2035 MTP/SCS includes and accommodates the quantitative growth projections for the region. In addition, the 2035 MTP/SCS EIR lays the groundwork for the streamlined CEQA review of qualifying development projects. Such projects are defined as Transit Priority Projects that are located within an Opportunity Area that meet specific criteria including:

- Consistent with the Sustainable Communities Strategy;
- Contains at least 50 percent residential use;
- Proposed to be developed at a minimum 20 dwelling units per acre; and
- Located within one half mile of a major transit stop or high quality transit corridor that is included in the MTP/SCS.

AB 32 Scoping Plan

In December 2008, CARB adopted the Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) CO_2e, or approximately 22 percent from the state's projected 2020 emission level of 545 MMT of CO_2e under a business-as-usual scenario This is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions. CARB's original 2020 projection was 596 MMT CO_2e, but this revised 2020 projection takes into account the economic downturn that occurred in 2008. The Scoping Plan also includes CARB recommended GHG reductions for each emissions sector of the state GHG inventory. CARB estimates the largest reductions in GHG emissions would be by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles (26.1 MMT CO_2e);

- the Low-Carbon Fuel Standard (LCFS) (15.0 MMT CO_2e);
- energy efficiency measures in buildings and appliances (11.9 MMT CO_2e); and
- renewable portfolio and electricity standards for electricity production (23.4 MMT CO_2e).

In 2011, CARB adopted a cap-and-trade regulation. The cap-and-trade program covers major sources of GHG emissions in the state such as refineries, power plants, industrial facilities, and transportation fuels. The cap-and-trade program includes an enforceable emissions cap that will decline over time. The state distributes allowances, which are tradable permits, equal to the emissions allowed under the cap. Sources under the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period. Enforceable compliance obligations started in 2013. The program applies to facilities that comprise 85 percent of the states GHG emissions.

With regard to land use planning, the scoping plan expects that reductions of approximately 3.0 MMT CO_2e will be achieved through implementation of Senate Bill (SB) 375.

California Senate Bill 97 (CEQA Guidelines Amendments)

As directed by SB 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010. CEQA allows lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, or as part of a separate plan (e.g., a climate action plan) to reduce GHG emissions.

California Green Building Standards Code

The Green Building Standards Code (CALGreen), which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect on January 1, 2011. These comprehensive regulations will achieve major reductions in greenhouse gas emissions, energy consumption and water use.

Renewable Energy Legislation/Orders

The California Renewable Portfolio Standard Program (RPS) requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet a portion of their retail sales with renewable power. SB 1078, adopted in 2002, required 20 percent of retail sales to be met with renewable power by 2017. The requirement was accelerated to 20 percent by 2010 by SB 107 in 2006. The program was subsequently expanded in September 2010 by requiring all utilities to meet a 33 percent target by 2020. Governor Brown then signed A8B 350, the Clean Energy and Pollution Reduction Act of 2015, which increases the RPS requirement to 50 percent of all retail sales by 2030.

Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document

In 2011, CARB released this document to provide a more in-depth analysis of the five alternatives to the scoping plan that were originally included in that document. The supplemental analysis was conducted in response to litigation brought against CARB which challenged the adequacy of the alternatives analysis contained in the scoping plan. The Supplement included an update of the business-as-usual GHG emissions projections that were contained in the scoping plan. The update is based on more recent economic conditions (including the economic downturn) and on reduction measures from the scoping plan that are already in place). The updated 2020 business-as-usual emissions forecast levels of 507 MMT CO_2e is lower than that contained in the 2008 scoping plan. With this forecast, only a 16 percent reduction below business-as-usual levels would be needed to return to 1990 levels (e.g. 427 MMT CO_2e) by 2020.

Advanced Clean Cars

In January 2012, CARB adopted an Advanced Clean Cars program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. Advanced Clean Cars program refers to a suite of regulations that combine what were previously independent regulations that targeted GHG emissions reductions and smog emissions from passenger cars and light-duty trucks. The regulations focus on substantially increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies.

The Advanced Clean Cars program would provide major reductions in GHG emissions. By 2025, the program is projected to result in a 34 percent reduction in GHG emissions from new passenger cars and trucks above and beyond a scenario without the Advanced Clean Cars program.

2014 Scoping Plan Update

In response to comments on the 2008 scoping plan, and AB 32's requirement to update the scoping plan every five years, CARB revised and reapproved the scoping plan, and prepared the first update to the 2008 scoping plan in 2014 (2014 scoping plan). The 2014 scoping plan contains the main strategies California will implement to achieve a reduction of 80 MMT of CO_2e emissions, or approximately 16 percent, from the state's projected 2020 emission level of 507 MMT of CO_2e under the business-as-usual scenario defined in the 2014 scoping plan. The 2014 scoping plan also includes a breakdown of the amount of GHG reductions CARB recommends for each emissions sector of the state's GHG inventory. Several strategies to reduce GHG emissions are included: the Low Carbon Fuels Standard, the Pavley Rule, the Advanced Clean Cars program, the Renewable Portfolio Standard, and the Sustainable Communities Strategy.

Executive Order B-30-15

Issued on April 29, 2015, this order advances the intent of Executive Order S-03-05 by establishing a California GHG reduction target of 40 percent below 1990 levels by 2030. The new emission reduction is intended to be an interim target that maintains a reduction trajectory towards meeting the state's goal of reducing emissions to 80 percent below 1990 levels by 2050 as identified in Executive Order S-03-05. This is in line with the scientifically established levels needed in the U.S. to limit global warming below two degrees Celsius - the warming threshold at which many scientists say there will likely be major climate disruptions, such as "super droughts" and rising sea levels.

California Senate Bill 350 (Clean Energy and Pollution Reduction Act of 2015)

SB 350 was adopted in October 2015. It has several aspects. Among its requirements are that the State Energy Resources Conservation and Development Commission must establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final-end uses of retail customers by January 1, 2030. Local publicly owned electric utilities are now required to establish annual targets for energy efficiency savings and demand reduction consistent with this goal. The bill is also intended achieve GHG reductions through increased investments in transportation electrification and notes that reducing GHGs to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050, consistent with Executive Orders S-03-05 and S-30-15, will require widespread transportation electrification.

California Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

This bill was adopted in September 2016. It sets a new statewide GHG emissions reduction target of at least 40 percent below 1990 levels by the end of 2030. It represents an interim GHG reduction target designed to ensure that the state continues to adopt rules and regulations that keep the state on track to meet the statewide GHG reduction goal of 80 percent below 1990 levels by 2050 set forth in Executive Order S-03-05. The emissions reduction goal set in SB 32 sets expectations for GHG emissions reductions in the state in the post-AB 32 2020 environment given that emissions reduction goals set forth in AB 32 will have been reached by 2020.

Title 24 Building Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were first established in 1978 to reduce California's energy consumption. The scoping plan requires improved building energy

efficiency with each new update to Title 24, which is updated every three years. The standards were most recently updated in 2016 and went into effect in January 2017.Energy efficient buildings require less electricity, natural gas, and other fuels, the use of which creates GHG emissions. The 2016 update requires new buildings to become more energy-efficient than ever before by increasing the energy efficiency of new construction by 20 percent for residential uses and 25 percent for non-residential uses, compared to the previous 2008 Title 24 standards.

Title 24 California Green Building Standards Code

The Green Building Standards Code (CALGreen) (California Code of Regulations, Title 24, Part 11), which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect on January 1, 2011. The standards were most recently updated in 2016 and went into effect in January 2017. These comprehensive regulations will achieve major reductions in greenhouse gas emissions, energy consumption and water use.

California Assembly Bill 197 (2017 Scoping Plan)

With the passage of AB 32, the California Legislature also passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. CARB has held three public meetings to receive input on the Scoping Plan and expects to adopt the updated Scoping Plan in 2018. The updated Scoping Plan represents a second update to the original Scoping Plan called for by AB 32 to reflect the 2030 target of reducing statewide GHG emissions by 40 percent below 1990 levels set by Executive Order B-30-15 and codified by SB 32. The GHG reduction strategies included in the plan that CARB will implement to meet the target:

- SB 350 - achieve 50 percent Renewables Portfolio Standard (RPS) by 2030 and doubling of energy efficiency savings by 2030;
- Low Carbon Fuel Standard-increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020);
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario) maintaining existing GHG standards for light-and heavy-duty vehicles, put 4.2 million zero-emission vehicles on the roads, and increase zero-emission buses, delivery and other trucks by 2030;
- Sustainable Freight Action Plan - improve freight system efficiency, maximize use of near-zero emission vehicles and equipment powered by renewable energy, and deploy over 100,000 zero-emission trucks and equipment by 2030;
- Short-Lived Climate Pollutant Reduction Strategy - reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030 and reduce emissions of black carbon 50 percent below 2013 levels by 2030;

- SB 375 Sustainable Communities Strategies - increased stringency of 2035 targets;
- Post-2020 Cap-and-Trade Program - declining caps, continued linkage with Québec and Ontario, Canada;
- 20 percent reduction in greenhouse gas emissions from the refinery sector; and
- By 2018, develop an Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Local

Monterey Bay Air Resources District

The Monterey Bay Air Resources District ("air district") has been in the process of developing guidance for evaluation of GHG emissions impacts for several years. To date, the air district has not adopted CEQA guidance for analysis of GHG effects of land use projects, nor has it prepared a qualified GHG reduction plan for use or reference by local agencies.

In the past, the air district recommended that thresholds of significance adopted by the San Luis Obispo Air Pollution Control District could be used as a reference for assessing impacts of land use projects planned within the local air district. This reference was made due to the air district's belief that conditions within the San Luis Obispo Air Pollution Control District were similar to those within the local air district. The Luis Obispo Air Pollution Control District developed substantial evidence for the formulation of quantified thresholds of significance. The thresholds are 4.9 metric tons/service population year or 1,150 metric tons. The service population metric approach is described for its application to the proposed project in the Environmental Impact Analysis section below. However, the San Luis Obispo Air Pollution Control District's thresholds were not utilized for the proposed project impact analysis due primarily to a recent California Supreme Court ("Newhall Ranch" case) decision which suggests that an appropriate threshold should address the land use character of the proposed project being analyzed. The Supreme Court case is also summarized in the Environmental Impact Analysis section below.

Monterey County General Plan

The 2010 Monterey County General Plan contains a policy to develop and adopt a Greenhouse Gas (GHG) Reduction Plan within 24 months of General Plan adoption (Policy OS-10.11). A reduction plan for county municipal operations has been adopted, but the county still needs to prepare a reduction plan to address community GHGs, including GHGs from land use projects. Once the county adopts a qualified GHG reduction plan, compliance of future land use projects with that plan will be the basis for determining the significance of their impacts on global climate change.

Las Palmas Ranch Specific Plan

The Las Palmas Ranch Specific Plan includes the following energy conservation policies. Consistency with these policies is addressed in the Energy section of this EIR.

Energy Conservation Policies

> 1. Each residential unit should be afforded adequate solar access for the operation of active and passive solar systems. Locating structures with their major axis oriented within 22.5 degrees of true east/west is generally the best means to insure adequate south-facing solar access. For single-family homes, the orientation is fairly simple to implement as is full access to the south wall for passive solar design. For multi-family units, orientation and access are more difficult; generally south roof access for active space hearing or domestic water hearing systems is considered sufficient.
>
> 2. Careful design of structures to utilize solar access and to control heat loss and heat gain can achieve significant energy conservation. When these design elements are coupled with passive design features (thermal storage units, south facing glass, domestic hot water systems and other energy conserving components), the energy conservation potential greatly increases. Support structures built by the developer such as commercial areas, swimming pools, recreation and community buildings should make maximum use of alternate energy sources both to reduce operation costs and to serve as community examples.

8.3 THRESHOLDS OR STANDARDS OF SIGNIFICANCE

CEQA Guidelines Appendix G indicates that a project may have a significant effect on the environment if it would have any of the effects listed below. The County utilizes the list of effects as its standards of significance for CEQA analyses. If any of the standards of significance are not applicable to the proposed project or the project would have no related impact, this is so noted, and no further evaluation regarding the effect is provided.

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Selection of a Threshold of Significance/Reduction Target on which to Base Analysis of Project Effects

State CEQA Guidelines Section 15064.4 addresses the approach for evaluating the significance of GHG emissions effects. Lead agencies are encouraged to use a model or models to estimate GHG emissions volumes then determine whether the emissions exceed a

threshold that the lead agency determines to be significant. State CEQA Guidelines Section 15064.7(c) states that when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts. This discussion summarizes the County's approach for considering the GHG impacts of the proposed project in light of a changing State legislative/regulatory environment and the long-term buildout timeframe for the proposed project.

AB 32 and the 2008/2014 Scoping Plan Guidance

With the adoption of AB 32 in 2006, local and regional agencies began to align their CEQA processes and craft GHG thresholds of significance to be consistent with the year 2020 reduction goal embedded in AB 32 and further operationalized in the subsequent 2008 and 2014 CARB scoping plans. However, the defensibility of using AB 32 and the 2008/2014 Scoping Plans as a basis for a project-specific threshold of significance for local projects has been called into question based on a 2015 California Supreme Court decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* (commonly referred to as the "Newhall Ranch" case). In November 2015, the court issued a ruling that, in short, concluded that the statewide 29 percent below business-as-usual reduction specified in the 2008 Scoping Plan can be used as a threshold of significance for individual development projects. However, the court also determined that if this threshold is used, substantial evidence must be provided to demonstrate that achieving this reduction at an individual project level is sufficient to determine that the project has a less-than- significant GHG emissions impact. The court found that the CEQA document which was the subject of the lawsuit did not provide this evidence.

The ruling called into question what has been a standard CEQA analysis methodology for assessing GHG impacts of individual projects within a city or air district where neither agency has adopted a qualified GHG reduction plan. The court provided no clear guidance on appropriate thresholds of significance for individual development projects that might be used to assess their GHG impacts. It did, however, suggest several options for evaluating the cumulative impacts of proposed land use developments. One of these is reliance on "existing numerical thresholds of significance for greenhouse gas emissions." As noted above, neither the County of Monterey nor the Monterey Bay Air Resources District (air district) have adopted numerical thresholds of significance or qualified GHG reduction plans that could otherwise be used as a threshold of significance for the proposed project in light of the Newhall Ranch case.

Table 8-3 of the 1990 California Greenhouse Gas Inventory for Residential Land Use Related Emissions Sectors, shows the adjusted residential-based, land use-driven emissions inventory for 1990 for a residential project. Total land use driven emissions were projected at

272.85 million metric tons (MMT) CO_2e in 1990. This emissions volume represents the numerator for an efficiency-based threshold of significance for the year 2020.

To account for the Newhall Ranch decision, an efficiency-based GHG threshold of significance is being used in this EIR that is specific to assessing impacts from new land use development of the type proposed and that is based on Scoping Plan guidance. The efficiency-based metric represents an emissions threshold at or below which the emissions from local land use projects are below a volume needed to help meet the state's GHG emissions reduction target established under AB 32. AB 32 is the applicable GHG reduction plan because the proposed project is expected to be operational before 2020. The efficiency-based threshold for the proposed project is calculated by dividing emissions associated with statewide residential and commercial uses (sources attributable to land use projects) by the sum of jobs and residents within the state. The sum of jobs and residents is called the "service population." The efficiency approach allows lead agencies to assess whether any given project or plan would accommodate population and employment growth in a way that is consistent with the emissions limit established under AB 32.

Table 8-3 1990 California Greenhouse Gas Inventory for Residential Land Use Related Emissions Sectors

Land Use Type	Emissions (MMT CO2e)
On-Road Transportation	
Passenger Cars	63.77
Light Duty Trucks	44.75
Motorcycles	0.43
Heavy Duty Trucks	29.03
Freight	0.02
Subtotal	138.00
Electricity Generation In-State	
Commercial Cogeneration	0.70
Merchant Owned	2.33
Transmission and Distribution	1.56
Utility Owned	29.92
Subtotal	34.51
Electricity Generation In-State	
Specified Imports	29.61
Transmission and Distribution	1.02
Unspecified Imports	30.96
Subtotal	61.59

Residential	
Household Use	29.66
Subtotal	29.66
Industrial	
Landfills	6.26
Domestic Wastewater Treatment	2.83
Subtotal	9.09
Total Emissions	272.85

SOURCE: California Air Resources Board. No Date.

AB 32 establishes a statewide goal of reducing emissions to 1990 levels by 2020. Accordingly, a 2020 efficiency-based threshold of significance that is consistent with this target can be calculated using the components of the 1990 statewide GHG emissions inventory that are land use based. GHG emissions related to individual land use sector development types (e.g. residential and commercial) can be isolated out of the 1990 statewide emissions inventory by eliminating emissions sources that are not land use driven and that would not accommodate projected new population or employment growth. For example, emissions associated with ocean transport or agriculture are not related to new land use development projects. Isolating emissions from the land use-driven sectors of the overall statewide inventory enables development of a GHG efficiency metric that is specific to the type of land use project under consideration. For example, emissions associated with on-road transportation, electricity, natural gas, wastewater treatment, and solid waste are typically part of the GHG emissions inventory for new land use development projects. The same GHG emissions sources identified in the statewide inventory can be isolated and used to create an AB 32-based, efficiency-based threshold of significance that is specific to a land use project.

As noted above, the service population is the sum of population and employment projections for any selected target year and represents the denominator in the efficiency metric calculation. Year 2020 population for the State of California is projected at 40,643,643 (California Department of Finance 2015), while Year 2020 employment is projected at 15,199,000 jobs (California Department of Transportation 2015). Employment projections for 11 different employment sectors are provided for Year 2020 projections; farm and manufacturing jobs are not included, as neither sector is land use driven. The 2020 service population equals 55,842,643 (40,643,643 population + 15,199,000 employment).

Using the statewide residential land use-related 1990 GHG emissions volume and the projected 2020 service population as shown above, the 2020 efficiency-metric threshold of significance is: 272.85 MMT CO_2e/55,842,643 = 4.88 MT CO_2e per service population. This is the threshold of significance used in this EIR.

As noted in the Regulatory Setting section above, the San Luis Obispo Unified Air Pollution Control District developed thresholds of significance for application within its district boundary. Its efficiency metric of 4.9 MT CO_2e is very similar to the threshold identified above for the proposed project and is based on the same general analytical approach.

Subsequent Use of 2020 Threshold of Significance Determination Methodology

The 2020 threshold of significance determination methodology utilized in this EIR applies to the proposed project only. The methodology reflects the County's best, most current effort to identify a threshold of significance in a GHG analysis environment that is in a state of flux. As new information and guidance becomes available from the State, regional, and/or other local agencies, the County's methodology for determining GHG thresholds of significance and the significance of individual project GHG impacts will be subject to change.

8.4 Environmental Impact Analysis

Climate Change as a Cumulative Effect

Global climate change is, as the term indicates, a global phenomenon. Greenhouse gas emissions released into the atmosphere from a variety of human activities and natural processes that occur across the globe are contributing to global warming. While the U.S. emits the largest per capita volume of GHGs of any country in the world, other major countries (China is the largest total GHG contributor due to its population of nearly 1.4 billion and intensive industrialization efforts in recent decades) contribute substantial volumes of emissions that continue to grow on a per capita basis. Because climate change is a global phenomenon, it is highly unlikely that any one development project located anywhere in the world would have a significant individual impact on climate change. It is the sum total of contributions of development around the world that contribute to the problem. Hence, global climate change is inherently a cumulative effect.

The individual contribution of a project to GHGs in the atmosphere can generally be quantified in terms of the volume of greenhouse gas emissions that it generates. However, it is challenging to identify the precise indirect effects of that contribution at a very local scale due to the complexity of local, regional, and global atmospheric dynamics and to the broad scale at which global warming impacts, such as sea level rise, increases in extreme weather events, decrease in snowpack, etc. are known to occur.

Construction Emissions Estimate

Appendix C, Section 2.1, Overall Construction, Unmitigated Construction, shows the GHG emissions from project construction activities. Total construction emissions are projected at 682.52 MT CO_2e. Total construction emissions are amortized over a 30-year period and

added to the annual operational GHG emissions, discussed below, to arrive at a total annual GHG emissions volume. Based on total construction emissions of 682.52 MT CO_2e, the proposed project would generate construction emissions of about 22.75 MT CO_2e per year over 30 years. CalEEMod defaults have been used for the number and types of construction equipment to be utilized during the construction process and for other construction emissions because more project specific data is not available. No construction GHG mitigation measures were assumed.

Annual Unmitigated 2020 Operational Emissions Projection

Table 8-4, Unmitigated 2020 Operational Phase GHG Emissions, presented below shows a projected annual operational emissions volume of approximately 611.27 MT CO_2e for the year 2020. The unmitigated emissions volume is taken from Appendix C, Section 2.1, Overall Operational, Unmitigated Operational.

Table 8-4 Unmitigated 2020 Operational Phase GHG Emissions (MT/year)

Emissions Source	CO_2e
Area Source	1.82
Energy	231.64
Mobile Source	329.00
Waste	24.29
Water	24.53
Total	611.27[1]

SOURCE: CalEEMod, EMC Planning Group 2017

NOTE: [1]. Total difference relative to volume reported may vary due to rounding

When the amortized construction emissions (22.75 MT) are added to the annual unmitigated 2020 operational phase GHG emissions (611.27 MT) the total emissions attributable to the project are 634.02 MT per year. CalEEMod incorporates GHG emissions reductions that accrue from two key state legislative programs - the Pavley standards and Low Carbon Fuel Standard, as described in the Regulatory Setting section above. GHG emissions reductions will also result statewide from implementation of other state legislation and regulations enacted to implement the 2008 and 2014 CARB Scoping Plans. These reductions are beyond the control of the applicant, but GHG emissions from operation of the project would be reduced as a result. Therefore, the projected annual emissions volume of 634.02 MT is conservative; the total annual volume would likely be lower.

For the purposes of the GHG analysis, the service population is the sum of the resident population and number of employees. For the proposed project, an assisted living senior

community, the resident population cannot be assumed to be equivalent to the number of beds (or 142) as the vehicle trip generation for the residents of an assisted living community is far less than that of a typical residential project. Many residents of the proposed project will not own vehicles and the residents who do will make fewer daily trips.

The proposed project includes 13 casitas structures providing 26 individual units with a total of 42 beds. Casitas residents may maintain a moderate level of independence in their life style, including driving their own vehicles. Accordingly, dedicated parking is provided for each casita. Vehicle trips are assumed for the facility's remaining 100 beds, though at a rate appropriately lower than the rate assumed for single or multi-family residential uses. The Institute of Transportation Engineers (ITE) trip rate for Nursing Homes is 2.74 per bed and the ITE trip rate for Assisted Living is 2.66 per bed; both of these rates are more representative of the actual trip generation for the 100 beds serving assisted living and memory care individuals. By comparison, these rates are approximately one-fourth of the trip rate for a single-family home as identified by the Institute of Transportation Engineers.

As such, for GHG analysis purposes, the resident population for this project is conservatively assumed to be the sum of all the casita beds (42) plus approximately one-quarter of the remaining 100 beds (25). Thus, the total resident population would be 67. The proposed project is projected to create 92 jobs at maximum capacity. Therefore, the service population is 159 (67 residents plus 92 employees). The 2020 GHG efficiency metric for the proposed project is 3.99 MT CO_2e/service population (634.02 MT/159). This is below the threshold of significance of 4.88 MT CO_2e/service population. Consequently, the proposed project would have a less-than-significant impact from generation of GHG emissions and no mitigation measures are required.

AB 32 – the Applicable GHG Reduction Plan

The proposed project would conflict with AB 32, the applicable plan for reducing GHGs, if the GHG emissions it generates interfere with the State's ability to achieve GHG emissions reduction targets set forth in the Scoping Plan for the 2020 target year. As described in the Standards of Significance section, above, the thresholds of significance developed for the proposed project are designed to determine whether project emissions would exceed 2020 emissions reductions goals in the Scoping Plan for 2020. Project emissions would be below the threshold for 2020. Therefore, the proposed would not conflict with AB 32.

8.5 IMPACT SUMMARY AND MITIGATION MEASURES

IMPACT Generation of 634.02 Metric Tons (MT) of Carbon Dioxide Equivalent (CO_2e) per Year (Less than Significant)

The 2020 GHG efficiency metric for the proposed project is 3.99 MT CO_2e per service population (634.02 MT/160). This is 18 percent below the threshold of significance of 4.88 MT CO_2e per service population. Therefore, the proposed project would have a less-than-significant impact from generation of GHG emissions. No mitigation measures are required.

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9.0
Transportation & Traffic

This section of the draft EIR addresses the project's effects on transportation and traffic in the vicinity of the project site. The discussion in this section is based upon site investigation, information found in the *County of Monterey General Plan*, *Toro Area Plan*, the *Las Palmas Ranch Specific Plan,* and traffic impact analysis prepared for the proposed project by Keith Higgins, included as Appendix D.

During the NOP review period, members of the public questioned potential impacts of the proposed project on the local transportation network. Additionally, comments on the NOP were received from the California Department of Transportation (Caltrans). Comments from Caltrans include suggesting the draft EIR consider the proposed project's multimodal travel demand and that traffic impact analysis for the project should include information on exiting traffic volumes in the study area and be based on traffic volumes which are less than two years old. The NOP and comment letters are included in Appendix B.

9.1 Environmental Setting

Existing Roadway Network

The key roadways in the vicinity of the proposed project include State Route 68 (Highway 68), Reservation Road, and River Road. These facilities are described below.

State Route (SR) 68 connects SR 1 in Monterey and U.S. Highway 101 in Salinas. It is a two-lane rural highway with a speed limit of 55 mph between SR 1 and just south of the Portola Drive interchange. SR 68 is a four-lane freeway with 65 mph speed limit between the Portola Drive and Spreckels Boulevard interchanges. SR 68 is a four-lane divided highway with 55 mph speed limit from the Spreckels Boulevard interchange to Blanco Road in the City of Salinas. Once inside the City of Salinas, SR 68 becomes an arterial along South Main Street and John Street. It serves as a commuter route between Salinas and the Monterey Peninsula, and functions as a scenic tourist route to the Monterey Peninsula.

Reservation Road is a two-lane rural road that connects SR 68 to the City of Marina. South of SR 68, Reservation Road becomes River Road, which is a four-lane road from the SR 68/Reservation Road interchange to Las Palmas Road. It narrows to two lanes just east of Las Palmas Road. The River Road/Las Palmas Road and River Road/Las Palmas Parkway

intersections are signalized intersections. River Road provides access to residential neighborhoods. The SR 68 ramp intersections with Reservation Road and River Road are signalized.

Existing Conditions Intersections Operations

Weekday AM and PM peak hour turning movement counts at the study intersections were conducted in March and May 2017. The counts were reviewed and, where appropriate, balanced between intersections. The existing conditions peak hour traffic volumes are raw traffic data are presented in the project's traffic impact analysis. The project's traffic impact analysis is included as Appendix D.

The traffic modeling software program Synchro 9 was utilized to evaluate existing conditions operational levels of service at the study intersections. The analysis was performed for the weekday AM and PM peak hours using Highway Capacity Manual 2010 (HCM 2010) methodologies (Higgins 2017).

The following intersections were studied in the traffic impact analysis:

- Reservation Road/SR 68 Westbound Ramps;
- River Road/SR 68 Eastbound Ramps; and
- River Road/Las Palmas Road.

The project's traffic impact analysis found that all the study intersections operate at acceptable levels of service under existing conditions. Existing levels of service are presented in Figure 9-4, Intersection Levels of Service, later in this section. LOS calculation worksheets are included in the project's traffic impact analysis (Higgins 2017).

Existing Conditions Road Segment Operations

The following road segment was studied in the traffic impact analysis: SR 68 between San Benancio Road and Toro Park Interchange

River Road operated in 2008 as LOS C with an average daily traffic (ADT) of 14,850 between SR 68 and Las Palmas Road and LOS D from Las Palmas Road to Las Palmas Parkway with an average ADT of 11,750 (Monterey County 2010). In 2016, the River Road segment between SR 68 and Las Palmas Road operated at LOS C with an ADT of 14,100, and the River Road segment between Las Palmas Road and Las Palmas Parkway operated at LOS D with an ADT of 13,000 (Monterey County 2016).

Daily traffic recorded volumes in 2016 are not significantly different to 2008 volumes and the levels of service for both segments of River Road remain unchanged. Evening peak hour traffic volumes counted in 2017 for the proposed project's traffic analysis totaled 1,492 north of Las Palmas Road and 1,367 south of Las Palmas Road. Evening peak hour volumes

generally represent approximately 10 percent of the daily total. Therefore, these counts are consistent with the 2016 daily volumes. Therefore, it can be deduced that River Road operates at LOS C between SR 68 and Las Palmas Road and LOS D between Las Palmas Road and Las Palmas Parkway. These are considered to be acceptable levels of service (Higgins 2017).

In 2008, SR 68 operated at LOS F and continues to operate at LOS based on current traffic rates (Monterey County 2016). The Transportation Agency for Monterey County (TAMC), Caltrans, and the County of Monterey are currently conducting a corridor study to investigate improvements to SR 68, including roundabouts at currently signalized intersections.

Existing Transit Service

The primary public transit service in the County of Monterey is the bus service provided by Monterey-Salinas Transit (MST). MST focuses on improving operational conditions through established bus routes and schedules that efficiently meet travel demands, reduce travel times, improve service reliability, and encourage bike-and-ride initiatives. All MST buses are wheelchair accessible and equipped with bike racks. In the vicinity of the project site, bus routes are provided along SR 68. There are no MST bus routes provided along River Road.

Existing Bicycle Facilities

The County of Monterey has an adopted bikeway plan designating routes along roadways that can be used by commuters and recreational riders for safe access to major employers, shopping centers, and schools. Three basic types of bicycle facilities are described below:

- Bike path (Class I) - A completely separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists.
- Bike lane (Class II) - A lane on a regular roadway, separated from the motorized vehicle right-of-way by paint striping, designated for the exclusive or semi-exclusive use of bicycles. Bike lanes allow one-way bike travel. Through travel by motor vehicles or pedestrians is prohibited, but crossing by pedestrians and motorists is permitted.
- Bike route (Class III) - Provides shared use of the roadway with motorists, designated by signs or permanent markings.

SR 68 and River Road are designated as Cross County Bike Routes on the 2016 Monterey County Bike Map. Both have shoulders that function as bike lanes.

Existing Pedestrian Facilities

There are no pedestrian facilities on SR 68, Reservation Road, or River Road. Pedestrian facilities are provided within the Las Palmas Ranch development along internal roadways.

9.2 REGULATORY SETTING

State

California Department of Transportation

Caltrans is responsible for state highways and associated highway ramps and for intersections where freeway ramps intersect the local street system. Caltrans generally strives to maintain LOS D on its facilities, but recognizes that circumstances may limit their ability to do so. Caltrans has jurisdiction over the operations of SR 68 in the vicinity of the project site.

Local Plans and Regulations

Regional Transportation Plan

TAMC is responsible for preparing the regional transportation plan (RTP) for Monterey County. The RTP includes policy guidance, plans, and programs to attain a balanced comprehensive, multimodal transportation system; proposed solutions to transportation issues; addresses all modes of travel; and, identifies anticipated funding for projects and programs. Goals of the RTP are embedded in the Association of Monterey Bay Area Government's *2035 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SC) and regional transportation plans for Monterey, San Benito, and Santa Cruz counties.

The Association of Monterey Bay Area Governments (AMBAG) as the federally-designated metropolitan planning organization representing Monterey, San Benito and Santa Cruz counties, is required by both federal and state law to prepare a long-range (at least 20 years) transportation planning document known as a metropolitan transportation plan. The metropolitan transportation plan contains a compilation of the projects proposed in the RTPs prepared by the Council of San Benito County Governments, the Santa Cruz County Regional Transportation Commission and TAMC. The metropolitan transportation plan is a document used to achieve a coordinated and balanced regional transportation system. The objective of the RTP and the MTP/SCS is to comply with current California Transportation Commission regional transportation plan guidelines.

Monterey County General Plan

The Monterey County General Plan Circulation Element provides policy direction for the transportation systems that serve the unincorporated lands of Monterey County, including roadways that could be affected by the proposed project. The element describes how the county intends to serve transportation needs for the next 20 years as the county's population grows. It identifies the general location and extent of existing and proposed major transportation facilities for vehicle, rail, air, water, and bicycle transportation including goals

relative to: major roadways, movement of people and goods, scenic highways, and public transit. Policies from the element that generally apply to consideration of impacts of the proposed project on county roadway facilities include:

> **Policy C-1.1**: The acceptable level of service for County roads and intersections shall be Level of Service (LOS) D, except as follows:
>
> a. Acceptable level of service for County roads in Community Areas may be reduced below LOS D through the Community Plan process.
>
> b. County roads operating at LOS D or below at the time of adopting this General Plan shall not be allowed to be degraded further except in Community Areas where a lower LOS may be approved through the Community Plan process.
>
> c. Area Plans prepared for County Planning Areas may establish an acceptable level of service for County roads other than LOS D. The benefits which justify less than LOS D shall be identified in the Area Plan. Where an Area Plan does not establish a separate LOS, the standard LOS D shall apply.
>
> **Policy C-1.2:** The goal of achieving the level of service noted in Policy C-1.1 is to be pursued through a combination of:
>
> a. Expenditures from available funds out of the County Road Fund;
>
> b. Circulation improvements that mitigate direct on site and off site development project impacts (see Policy C-1.3);
>
> c. Development and adoption of a Traffic Impact Fee (TIF) as part of a Capital Improvement and Financing Plan (CIFP) to:
>
> 1. Identify and prioritize the improvements to be completed in the benefit areas over the life of the General Plan;
>
> 2. Ensure a funding mechanism for transportation improvements to county facilities in accordance with Policy C-1.8; and
>
> 3. Categorize transportation projects as "high," "medium," or "low" priority.
>
> d. Coordination with all adopted transportation improvement programs within the County of Monterey including but not limited to TAMC, FORA, and cities.
>
> CIFPs shall be developed pursuant to Policy PS-I. Construction costs and land values shall be adjusted annually and the CIFP

shall be reviewed every five (5) years in order to evaluate the effectiveness of meeting the LOS standard for County roads. Road segments or intersections identified to be below LOS D shall be a high priority for funding.

Policy C-1.3: Circulation improvements that mitigate Traffic Tier 1 direct on-site and off-site project impacts shall be constructed concurrently (as defined in subparagraph (a) only of the definition for "concurrency") with new development. Off-site circulation improvements that mitigate Traffic Tier 2 or Traffic Tier 3 impacts either shall:

a. be constructed concurrently with new development, or

b. a fair share payment pursuant to Policy C-1.8 (County Traffic Impact Fee), Policy C-1.11 (Regional Development Impact Fee), and /or other applicable traffic fee programs shall be made at the discretion of the County.

Note: Tier 1 means impacts that are direct impacts on site, or off-site, but in the immediate vicinity of the project.

Tier 2 means direct or cumulative impacts to county roadways not in the immediate vicinity of development.

Tier 3 means impacts to regional roadways and highways identified in the TAMC Regional Development Impact Fee Program.

Policy C-1.4: Not withstanding Policy C-1.3, projects that are found to result in reducing a County road below the acceptable LOS standard shall not be allowed to proceed unless the construction of the development and its associated improvements are phased in a manner that will maintain the acceptable LOS for all affected County roads. Where the LOS of a County road impacted by a specific project currently operates below LOS D and is listed on the CIFP as a high priority, Policy C-1.3 shall apply. Where the LOS of a County road impacted by a specific project currently operates below LOS D and is not listed on the CIFP as a high priority, development shall mitigate project impacts concurrently. The following are exempt from this Policy except that they shall be required to pay any applicable fair share fee pursuant to Policies C-1.8, C-1.11, and /or other applicable traffic fee programs:

a. first single family dwelling on a lot of record;

b. allowable non-habitable accessory structures on an existing lot of record;

c. accessory units consistent with other policies and State Second Unit Housing law;

d. Any use in a non-residential designation for which a discretionary permit is not required or for which the traffic generated is equivalent to no more than that generated by a single family residence (10 ADT); and

e. Minimal use on a vacant lot in a non-residential designation sufficient to enable the owner to derive some economically viable use of the parcel.

Policy C-1.11 In addition to the County Traffic Impact Fee established in Policy C-1.8, the County shall require new development to pay a Regional Traffic Impact Fee developed collaboratively between TAMC, the County, and other local and state agencies to ensure a funding mechanism for regional transportation improvements mitigating Traffic Tier 3 impacts.

Countywide Traffic Impact Fee Programs

TAMC Fee and Sales Tax Revenue Measure

TAMC and its member jurisdictions have adopted a county-wide, regional impact fee to cover the costs for studies and construction of many improvements throughout Monterey County. This impact fee, which went into effect on August 27, 2008, is applied to all new development within Monterey County. The governing document for the fee is the *Regional Development Impact Fee Program Nexus Study Update* (Wood Rodgers 2013).

In November, 2016 Monterey County voters approved Measure X, the Transportation Safety & Investment Plan, a 30-year sales tax measure to fund a broad range of transportation improvements. Fifty million dollars has been earmarked for SR 68 improvements for congestion relief and safety improvements. TAMC is currently conducting corridor studies to identify improvement options and to focus on options that will provide the most significant benefits to residents and the travelling public (http://www.tamcmonterey.org/measure-x/programs-projects/). In addition, the TAMC regional development impact fee designates an additional four million dollars toward these improvements.

To date, a county-wide traffic fee program has yet to be adopted. However, the county has been assessing fees for the countywide traffic impact fee on an ad hoc basis per the fee program's draft fee schedule (Higgins 2017).

Toro Area Plan

The following supplemental policy included in the Toro Area Plan is applicable to the proposed project:

Policy 41.2.1.1(T) If new sites for office employment, services, and local conveniences are found to be appropriate, such sites should incorporate designs to allow use of alternate modes of transportation.

Las Palmas Ranch Specific Plan

The following circulation policies included within the Las Palmas Ranch Specific Plan generally apply to consideration of impacts of the proposed project:

Policy 3 Adequate off-street parking should be provided as a means of reducing road congestion, particularly in areas where reduced road right-of-way is proposed.

Policy 4 Turnouts and turnaround facilities may be required to accommodate emergency vehicles in areas of reduced right-of-way or where longer cul-de-sacs are proposed.

Policy 5 Interior roads shall have longitudinal grades not exceeding 15 percent.

Policy 7 The internal circulation system should be designed to accommodate a level of service "C" at full buildout. A trip generation factor of 8.0 trips per day per unit shall be used for this project.

Policy 8 The use of optional design and improvement standards is encouraged for the internal road system to reduce visual impacts, maintain a rural character and enhance the liveability, convenience and appearance of the project. Subject to specific review in each case, such optional standards shall permit extended cul-de-sac length and elimination or reduction of curbs and sidewalks, and may permit reduce right-of-way.

Policy 9 Roads which area perpendicular to viewing areas of which involve excessive cut and fill shall be discouraged.

Policy 10 Horizontal and vertical street alignments should relate to the natural contour of the site insofar as practical, while retaining safe sight distance for expected driving speeds but not less than 25 mph.

Policy 13 Access to the development will be by public road intersections including left turn channelizations constructed by the developer on River Road at the entrances to the subdivision. Design and construction shall be compatible with the widening of River Road.

> **Policy 14** Internal road connections should be provided where feasible between the areas of the subdivision in order to minimize the need for River Road to provide a route for intra-subdivision traffic.

Traffic Mitigations Previously Implemented for Las Palmas Ranch

The overall traffic impacts of the Las Palmas development were analyzed and addressed through the specific plan and its EIR. The specific plan EIR assessed traffic impacts for an upper and lower number of units and recommended mitigations accordingly. The Monterey County Board of Supervisors, in adopting the specific plan, approved a number of units midway between the high and low numbers analyzed, but required the mitigation measures for the larger project. The specific plan prescribed specific traffic mitigations, including payment of fees to a County fund to expand River Road to four lanes, for improvements to the River Road/Highway 68 intersection and for other local improvements. In later phases of the construction of Las Palmas Ranch, the developers, with the approval of the County, built all of the required improvements.

Those mitigations were based on traffic estimates developed in the specific plan EIR and documented in the specific plan and through conditions of project approvals. To assess the potential impacts of the proposed project, the project's traffic analysis preparer reviewed the specific plan EIR, specific plan, previous project conditions of approval, improvements that were constructed, and conducted traffic counts from all of the Las Palmas Ranch entrance points. The proposed project's analysis concluded:

1. The estimated trip generation for the Las Palmas Ranch development is 11,721 trips per day (LPRSP EIR).
2. Based on actual traffic counts, Las Palmas Ranch is generating on average 7,646 external trips per day (65% of projected).
3. The proposed project is estimated to add 363 external trips per day.
4. The cumulative traffic generation (existing plus project) is 8,009 trips per day (68% of projected), 3,712 trips less per day that originally estimated for Las Palmas Ranch.
5. All of the traffic improvements prescribed for Las Palmas Ranch to mitigate its impacts on River Road and Highway 68 have been completed.

9.3 THRESHOLDS OR STANDARDS OF SIGNIFICANCE

CEQA Guidelines appendix G indicates that a project may have a significant effect on the environment if it would:

- conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and

relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

- conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- result in inadequate emergency access;
- 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; or
- conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Caltrans Definitions of Significant Traffic Impacts

Signalized Intersections

Caltrans defines an acceptable level of service for signalized intersections as LOS C/D (on the "cusp" or the transition between LOS C and LOS D). The project is said to create a significant adverse impact on traffic conditions at a signalized intersection under Caltrans' jurisdiction if:

- The level of service at the signalized intersection degrades from an acceptable LOS C/D threshold or better under background conditions to an unacceptable LOS D or worse under background plus project conditions, or
- The project would add traffic to a signalized intersection already operating at LOS D or worse.
- A significant impact is satisfactorily mitigated when measures are implemented that would restore intersection level of service to better than background conditions.

Freeway Impacts

Caltrans defines an acceptable level of service for freeway segments as LOS C or better. A significant adverse impact on traffic conditions would occur on a freeway segment if for either peak hour:

- The level of service on the freeway segment degrades from an acceptable LOS C or better under baseline conditions to an unacceptable LOS D or worse under project conditions; or

- New trips are added to a facility already operating at an unacceptable LOS D or worse under baseline conditions.
- A significant impact is satisfactorily mitigated when measures are implemented that would restore freeway conditions to better than background conditions.

Monterey County Definitions of Significant Traffic Impacts

Monterey County considers a project to have a significant impact on county roads if it would:

- Degrade a signalized intersection to below LOS C or diminish the volume to capacity ratio of an intersection already operating below LOS D and E by 0.01 or more, or any vehicles to an intersection already operating at LOS F;
- Degrade any traffic movement at an unsignalized intersection to LOS F, or cause any traffic signal warrant to be met;
- Degrade roadway segments operating at LOS A through E to a lower LOS of D, E, or F; and/or
- Add any trips to a roadway segment already operation at LOS F.

9.4 Environmental Impact Analysis

Project Trip Generation

The project is proposed to include 26 assisted living units (casitas), which are expected to have a traffic generation rate similar to typical attached senior housing units. It is also proposed to include 52 beds of assisted care and 48 beds of memory care (for traffic generation purposes, similar to a nursing home). In total, the project is expected to generate approximately 363 daily trips with 22 trips during the morning peak hour and 33 trips during the evening peak hour. This assumes the project operates with peak hour trip generation characteristics similar to a standard project with this mix of senior living uses (Higgins 2017). The project trip generation estimate is summarized in Figure 9-1, Project Trip Distribution.

The project is expected to employ about 93 staff members over a 24-hour period. The shift changes that are most relevant to project traffic impacts are those that occur near the peak hour of the street and highway system.

As a means of reducing peak hour trip generation, the project proposes to have shift changes occur outside peak travel periods, that is, during the hours of 7am to 9am and 4pm to 6pm. Morning shifts A and B, day shift B and the evening and night shifts all will change outside the two-hour street peak periods.

Rescheduling the day shift A schedule to begin and end outside the street peak period would eliminate 12 inbound trips in the morning peak hour (from day shift A) and 12 outbound trips during the evening peak hour. This would result in a net total of 10 morning street peak hour trips and 21 evening street peak hour trips.

Project Trip Distribution and Assignment

The project's trip distribution based on existing traffic patterns in the study area is shown graphically in Figure 9-2, Project Trip Generation. Project trip assignments at the study intersections are shown in Figure 9-3, AM & PM Peak Hour Volumes and Project Trip Assignment. The project would add about one AM peak hour trip and four PM peak hour trips to the two-lane section of SR 68 immediately west of the Toro Park interchange. These additional trips would have no impact on traffic flows. Project traffic will dissipate along the SR 68 corridor at the many crossroads including Torero Drive, San Benancio Road, Corral de Tierra Road, and Laureles Grade, resulting in less than one AM peak hour trip and about two PM peak hour trips west of Laureles Grade. Project traffic would be at or below one peak hour trip west of SR 218 (Higgins 2017).

Existing Plus Project Traffic Volumes

The project trip assignments were added to the existing traffic volumes to obtain estimated existing plus project traffic volumes. Existing plus project traffic volumes for the AM and PM peak hours are also presented in Figure 9-3, AM & PM Peak Hour Volumes and Project Trip Assignment.

Existing Plus Project Conditions Intersection Conditions

All of the study intersections are projected to operate at acceptable levels of service under existing plus project traffic conditions and no improvements are recommended. Intersection levels of service are summarized in Figure 9-4, Intersection Levels of Service. LOS calculation worksheets are included as an appendix of the project's traffic impact assessment (Appendix D). As concluded in the project's traffic impact assessment, all project impacts at study intersections would be insignificant (Higgins 2017).

Existing Plus Project Conditions Road Segment Operations

The project would have no effect on the level of service of River Road between SR 68 and Las Palmas Parkway and would have no effect on SR 68 traffic operations. However, SR 68 currently operates at LOS F. Monterey County and Caltrans consider the addition of a single peak hour trip to be a significant impact. Therefore, although the added trips would be insignificant in proportion to existing traffic volumes, the project would have, as determined by Monterey

County and Caltrans, a significant impact on the two-lane section of SR 68 between Toro Park and SR 218.

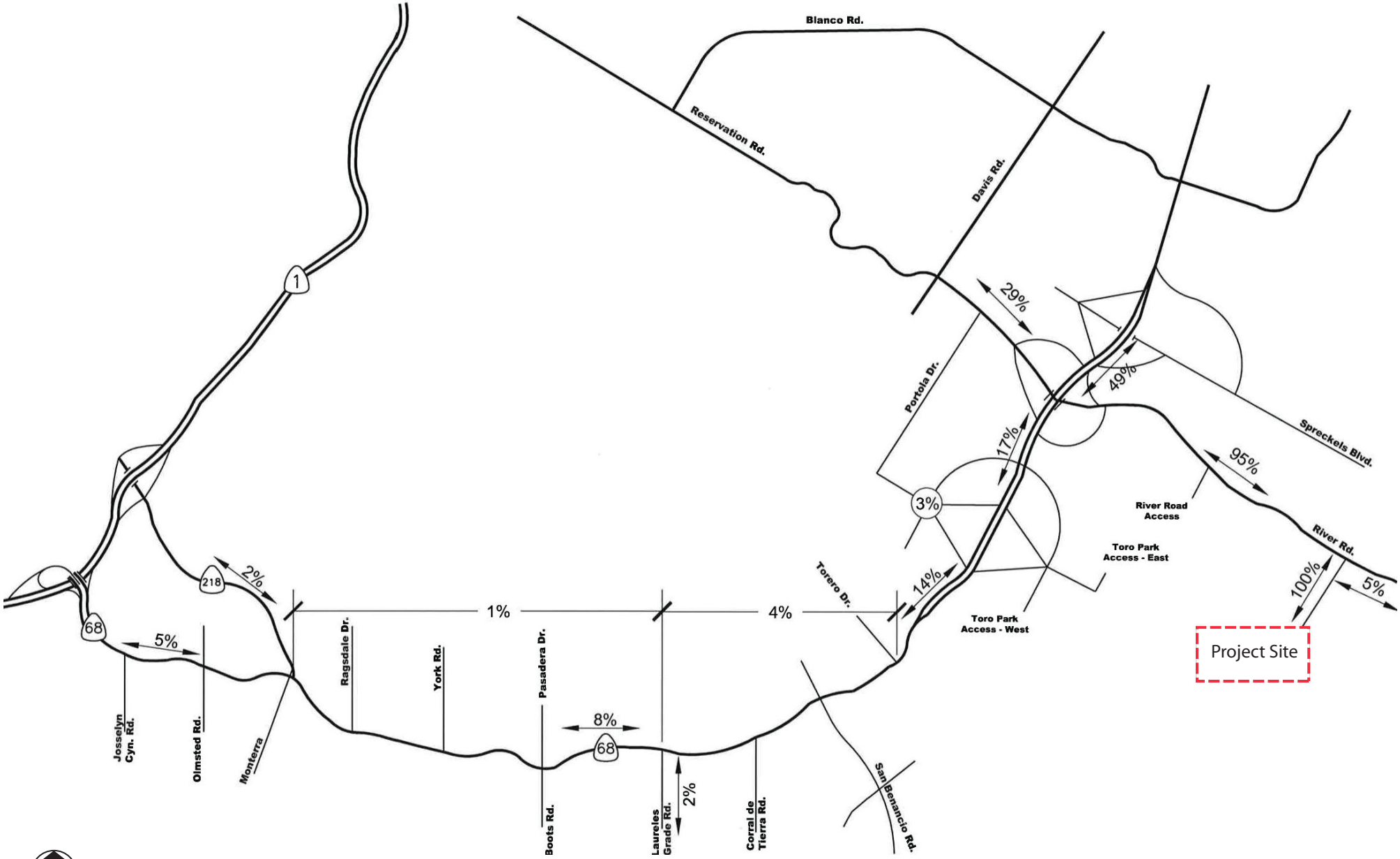

Figure 9-1
Project Trip Distribution

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TRIP GENERATION RATES[1]	ITE Land Use Code	Daily Trip Rate	AM Peak Hour				PM Peak Hour			
			Peak Hour Rate	% of ADT	% In	% Out	Peak Hour Rate	% of ADT	% In	% Out
Senior Housing - Detached (per unit)	251	3.68	0.22	6%	35%	65%	0.27	7%	61%	39%
Senior Housing - Attached (per unit)	252	3.44	0.2	6%	34%	66%	0.25	7%	54%	46%
Assisted Living (per bed)	254	2.74	0.18	7%	68%	32%	0.29	11%	50%	50%
Nursing Home (per bed)	620	2.74	0.17	6%	69%	31%	0.22	8%	33%	67%

GENERATED TRIPS	Project Size	Daily Trips	Peak Hour Trips	% of ADT	Trips Inbound	Trips Outbound	Peak Hour Trips	% of ADT	Trips Inbound	Trips Outbound
PROPOSED PROJECT (Revised Project)										
Senior Housing - Detached	0 Units	0	0	-	0	0	0	-	0	0
Senior Housing - Attached (Casitas)	26 Units	89	5	6%	2	3	7	8%	4	3
Assisted Care	52 Beds	142	9	6%	6	3	15	11%	8	7
Memory Care (Nursing Home)	48 Beds	132	8	6%	6	2	11	8%	4	7
Total Using Standard ITE Rates		**363**	**22**	**6%**	**14**	**8**	**33**	**9%**	**16**	**17**
Reduction in Peak Hour Traffic by Adjusting Day Shift A Schedule			**12**		**12**	**0**	**12**		**0**	**12**
Total with Adjusted Work Schedules			**10**		**2**	**8**	**21**		**16**	**5**

PROJECT TRAFFIC ASSIGNMENT TO HIGHWAY 68 SEGMENTS	Percent of Total	Total	EB	WB	Total	EB	WB
River Road to Toro Park (4 Lane Section)	17%	1.7	0.3	1.4	3.6	2.7	0.9
Toro Park to Laureles Grade (2 Lane Section)	14%	1.4	0.3	1.1	2.9	2.2	0.7
Laureles Grade to Highway 218 (2 Lane Section)	8%	0.8	0.2	0.6	1.7	1.3	0.4
West of Highway 218 (2 Lane Section)	5%	0.5	0.1	0.4	1.1	0.8	0.3
Highway 218	2%	0.2	0.0	0.2	0.4	0.3	0.1

Notes:

1. Trip generation rates published by Institute of Transportation Engineers, "Trip Generation," 9th Edition, 2012.

Source: Keith Higgins 2017

Figure 9-2

Project Trip Generation

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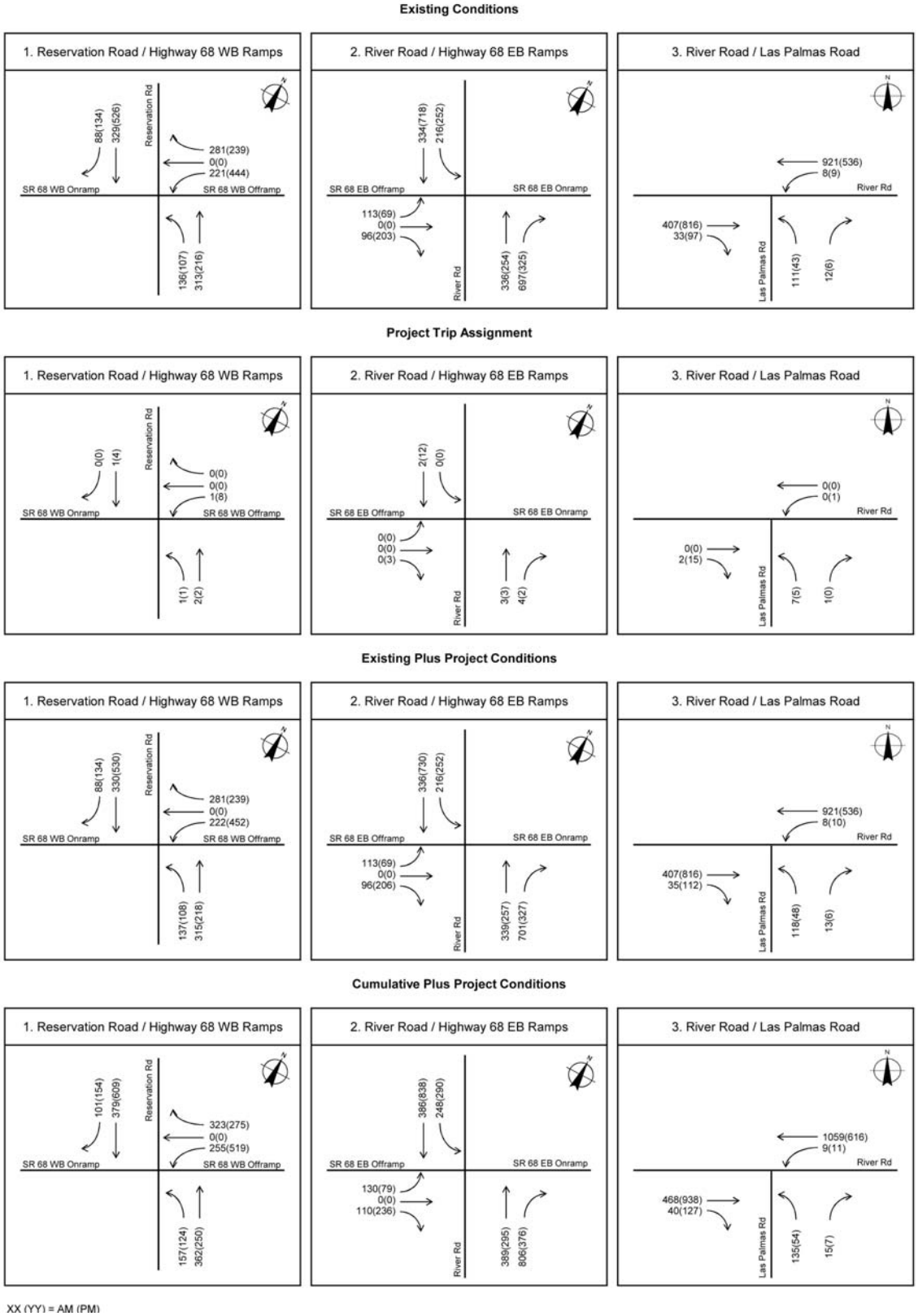

Source: Keith Higgins 2017

Figure 9-3
AM & PM Peak Hour Volumes & Project Trip Assignment

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	N-S Street	E-W Street	Existing Lane Configuration	Existing Intersection Control	LOS Standard	Existing Conditions				Existing + Project Conditions				Cumulative + Project Conditions			
						AM Peak Hr.		PM Peak Hr.		AM Peak Hr.		PM Peak Hr.		AM Peak Hr.		PM Peak Hr.	
						Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Reservation Road	Highway 68 WB Ramps	NB 1-L, 1-T SB 1-T/R WB 1-L/T, 1-R	Signal	Caltrans C/D	20.3	C	31.3	C	20.3	C	32.0	C	24.6	C	48.7	D
2	River Road	Highway 68 EB Ramps	NB 1-T, 1-R SB 1-L, 1-T EB 1-L/T, 1-R	Signal	Caltrans C/D	26.3	C	14.5	B	26.5	C	14.6	B	42.7	D	17.8	B
3	Las Palmas Road	River Road	NB 1-L, 1-R EB 2-T, 1-R WB 1-L, 2-T	Signal	County D	4.9	A	4.2	A	5.0	A	4.4	A	5.3	A	4.4	A

Notes:

1 L, T, R = Left, Through, Right

2 NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound

3 Highlighted levels of service exceed jurisdiction's LOS standard.

Source: Keith Higgins 2017

Figure 9-4

Intersection Levels of Service

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The project would be required to pay a TAMC fee that would represent the project's fair share contribution toward SR 68 improvements and improvements on other regional facilities. In addition, construction and operational phases of the project would contribute monies for the TAMC sales tax over the next 30 years.

Neighborhood Street Analysis

The project site is located at the end extension of Woodridge Court. Woodridge Court connects to River Run Road, which connects to Las Palmas Road and provides access to and from River Road. Woodridge Court and River Run Court are local streets. Las Palmas Road functions as a collector street. Providing access to and from the project site would add vehicle trips to each of these streets.

Las Palmas Road currently carries approximately 164 morning peak hour and 155 evening peak hour trips. Traffic counts conducted in November 2013 indicated that Las Palmas Road between River Road and Winding Creek Road carries approximately 1,837 daily trips. Riverview Court daily traffic totaled 386, for a grand total of 2,223 for the 313 homes in the Las Palmas 1 development. Based on these traffic counts, the daily trip generation rate for the neighborhood is approximately 7.1 trips per day per home (Higgins 2017).

Two lane collector streets are generally held to have a capacity of approximately 10,000 vehicles per day. Las Palmas Road has a width of 40 feet, which corresponds to a secondary street in the Monterey County Standard Details, which assigns a conservative threshold of carrying up to 3,000 vehicles per day. LOS C was the general plan policy in effect at the time of the approval of the Las Palmas Ranch Specific Plan. These thresholds are therefore considered to correspond with LOS C. Assuming this rate applies to all subareas within the La Palmas Ranch development, the daily trip totals for Las Palmas Road between Winding Creek Road and River Run Road is approximately 1,200. This is within 60 percent below the LOS C capacity normally attributable to collector streets, as well as the Monterey County threshold of 3,000 vehicles per day (Higgins 2017).

River Run Road carries approximately 950 vehicles per day between Las Palmas Road and Woodbridge Court. River Run Road is a local street. It has a width of 38 feet, which is about midway between a secondary street (40 feet width) with a LOS C threshold of 3,000 and a tertiary street (34 feet width) with a LOS C threshold of 1,000. This section of street could therefore be considered a hybrid with a LOS C threshold of 2,000 vehicles per day. Functionally, it currently provides the sole access to over 130 homes plus the Corey House and the project site. River Run Road with the build-out of the project site under its original development proposal would be estimated to carry approximately 1,230 to 1,300 vehicles per day (35 percent below the LOS C threshold). On that basis, River Run Road would continue to operate at LOS A-B with implementation of the proposed project (Higgins 2017).

Another consideration for River Run Road is a comparison of anticipated traffic volumes with traffic volume thresholds used by nearby municipalities in neighborhood traffic management and traffic calming policies. Monterey County does not have such a policy, but the City of Salinas adopted the Neighborhood Traffic Management Program. This policy states that if traffic volumes on residential streets are projected to be less than 1,500 vehicles per day, then no action is needed, nor will it be taken.

The City of Salinas Traffic Calming Program states that streets carrying more than 1,600 vehicles per day are eligible for traffic calming. Volumes under 1,600 vehicles per day are within a reasonable level for a residential street. Both the policies indicate that collector streets are not eligible for traffic calming. The anticipated volume of 1,313 vehicles per day on River Run Road is below the threshold for both policies and therefore, would be considered within an acceptable traffic volume for a local residential street (Higgins 2017).

Woodbridge Court currently does not serve any residences. It has a width of 28 feet, which is similar to a county loop street. It carries occasional traffic primarily associated with the Corey House and maintenance vehicles. Woodbridge Court would carry all of the project's traffic, which is expected to total approximately 363 vehicles per day. This street would carry volumes well within acceptable levels for residential streets (Higgins 2017).

Table 9-1, Existing and Existing Plus Project Traffic Volumes below summarizes existing and existing plus project daily traffic volumes along the access route between the project site and River Road.

Table 9-1 Existing and Existing Plus Project Traffic Volumes

Street Segment	Street Classification & LOS C Threshold	Number of Homes Fronting on Street	Existing ADT and LOS	Project ADT	Existing Plus Project ADT/LOS
Las Palmas Rd – River Rd to Winding Creek	Collector/Secondary – 3,000	0	2,223-A	363	2,586-A
Las Palmas Rd – Winding Creek to River Run	Collector/Secondary – 3,000	0	1,200-A	363	1,563-A
River Run Rd – Las Palmas Rd to Woodbridge Court	Local/An Average of Secondary and Tertiary – 2,000	2	950-A	363	1,313-A/B
Woodbridge Court – River Run Road to Project Site	Tertiary - 300	0	0-A	363	363-A

SOURCE: Higgins 2017

NOTE: ADT = average daily trips; LOS = level of service

Two intersections exist along the project's access route to and from SR 68. The Las Palmas Road / River Run Road intersection is a T-intersection that is stop-controlled on the Las Palmas Road approach. Traffic volumes are well within a LOS A on both intersecting streets. The project would add only incrementally to existing volumes and no capacity or traffic control improvements would be currently warranted. The River Run Road / Woodbridge Court intersection has stop control on the River Run Road approach. No capacity or traffic control improvements would be required (Higgins 2017).

Emergency Access

The project's traffic impact assessment concluded that vehicle trip generation associated with the proposed project would be accommodated by the existing neighborhood roadway system. Therefore, implementation of the proposed project would not result in inadequate emergency access to the project site itself, or to residences in the Las Palmas Ranch neighborhood.

Applicant Proposed Mitigation Measures

The following mitigation measure intended to reduce impacts to traffic circulation in the vicinity of the project site has been proposed by the applicant.

1. To reduce peak hour trip generation, specifically on SR 68, all employee shift changes for project site operations shall occur outside of morning and evening peak trip hours. A requirement to schedule all morning, day, and night shifts for project operations outside of peak hours shall be included as a condition of approval associated with the conditional use permit.
2. To reduce overall trip generation to and from the project site, the project developer shall prepare a detailed plan for shuttle service. Shuttle services shall be offered to residents to access areas on the Monterey Peninsula and in Salinas from the project site. Additionally, shuttle service to nearby transportation hubs for employees shall be offered in the shuttle service plan. The shuttle service plan shall be submitted for review and approval to Monterey County prior to approval of any building permits on the project site.

9.5 Impact Summary and Mitigation Measures

IMPACT The Proposed Project Would Add Vehicle Trips to Local Neighborhood Roadways and Intersections (Less than Significant)

The proposed project would add approximately 363 vehicles per day within the neighborhood roadway system between River Road and the project site. Based on existing traffic conditions and the existing capacity of the neighborhood roadway system, the additional vehicle trips associated with the proposed project would have less-than-significant impacts on the neighborhood roadway system.

IMPACT The Proposed Project Would Add Vehicle Trips to the Reservation Road and State Route 68 Westbound Ramp Intersection, River Road and State Route 68 Eastbound Ramp Intersection, and the River Road and Las Palmas Road Intersection (Less than Significant)

All of the project's traffic impact analysis study intersections are projected to operate at acceptable levels of service under existing plus project traffic conditions and no improvements are required. Based on existing traffic conditions and the existing levels of service of the intersections, the additional vehicle trips associated with the proposed project would have less-than-significant impacts on the Reservation Road and SR 68 Westbound Ramp Intersection, the River Road and SR 68 Eastbound Ramp Intersection, and the River Road and Las Palmas Road Intersection.

IMPACT The Proposed Project Would Add Vehicle Trips to the River Road segments from State Route 68 to Las Palmas Road and Las Palmas Road to Las Palmas Parkway (Less than Significant)

The proposed project would add vehicle trips to the road segments of River Road from SR 68 to Las Palmas Road, and from Las Palmas Road to Las Palmas Parkway. Based on existing traffic conditions and the existing capacity of these roadway segments, the additional vehicle trips associated with the proposed project would have less-than-significant impacts on these two roadway segments of River Road.

IMPACT The Proposed Project Would Add Vehicle Trips to State Route 68, which Currently Operates at Level of Service F (Significant and Unavoidable)

The proposed project would add about one AM peak hour trip and four PM peak hour trips to the two-lane section of SR 68 immediately west of the Toro Park interchange. Project traffic will dissipate along the SR 68 corridor at the many crossroads including Torero Drive, San Benancio Road, Corral de Tierra Road, and Laureles Grade, resulting in less than one AM peak hour trip and about two PM peak hour trips west of Laureles Grade. Project traffic would be at or below one peak hour trip west of SR 218. Project-related traffic would not have any effect on SR 68 traffic operations. However, SR 68 currently operates at LOS F and Monterey County and Caltrans consider the addition of a single peak hour trip to be a significant impact when adding to a LOS F situation. Therefore, based on this threshold, the project would have a significant impact on the two-lane section of SR 68 between Toro Park and SR 218. As previously discussed, TAMC, Caltrans, and Monterey County have funding and are studying a variety of operational improvements along the corridor.

There are no mitigation measures available to reduce project-level impacts to a less-than-significant level, based on the Monterey County and Caltrans threshold, because the proposed project would have no effect on traffic operations. However, the project would be required to pay regional traffic impact fees that would serve as some mitigation for impacts

to SR 68. Nevertheless, the project would not be directly implementing any improvements to offset its impacts and will, therefore, have an unmitigated significant impact on SR 68. At this time, it is unknown whether any Caltrans/TAMC improvements to the corridor (e.g., widening and/or roundabouts along the route) would improve the level of service on SR 68.

Furthermore, the applicant has proposed to implement the following mitigation measures, which would reduce impacts to the traffic circulation in the vicinity of the project site.

TRA-1 To reduce peak hour trip generation, specifically on SR 68, all employee shift changes for project site operations shall occur outside of morning and evening peak trip hours. A requirement to schedule all morning, day, and night shifts for project operations outside of peak hours shall be included as a condition of approval associated with the conditional use permit.

TRA-2 To reduce overall trip generation to and from the project site, the project developer shall prepare a detailed plan for shuttle service. Shuttle services shall be offered to residents to access areas on the Monterey Peninsula and in Salinas from the project site. Additionally, shuttle service to nearby transportation hubs for employees shall be offered in the shuttle service plan. The shuttle service plan shall be submitted for review and approval to Monterey County prior to approval of any building permits on the project site.

Implementation of these mitigation measures would reduce impacts to traffic circulation in the vicinity of the project site. However, the mitigation measures would not alter the proposed project's significant and unavoidable impact to SR 68.

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Figures

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Tables

10.0
Water Supply

This section of the Draft EIR addresses the project's effects on water resources, including water demand and supply for the proposed project.

During the Draft EIR's NOP review period, some members of the public questioned the availability of water supply for the proposed project. The county's NOP and comment letters are included in Appendix B.

10.1 Environmental Setting

Water Supply Purveyor

Urban water supply is provided to the Las Palmas Ranch Specific Plan Area by the California Water Service Company (Cal Water). The project site is located within Cal Water's Indian Springs/Salinas Hills/Buena Vista service area. Cal Water has provided a "can and will serve" letter for the proposed project, which is included as Appendix E. Landscape irrigation on the project site associated with the proposed project would use reclaimed water from the Las Palmas Ranch Wastewater Treatment Facility, operated by California American Water. Reclaimed water pipe connections to the treatment facility are already located on the project site.

Cal Water has a total of 28 wells that supply its Salinas service area. The design production capacity of active operational wells is 27,880 gallons per minute (gpm), which is equivalent to 40 million gallons per day (mgd) or 44,843 acre-feet per year (AFY). Cal Water has three new wells being constructed and scheduled to become operational in 2017 and 2018. Well capacities range from 500 gallons per minute (gpm) to 2,000 gpm. It is assumed that the three new wells will have an average design capacity of 1,200 gpm for a total of 3,600 gpm or 5.18 mgd, which is equivalent to 5,812 AFY. Three additional wells are planned within the boundary of the West Area Specific Plan, a project currently being considered by the City of Salinas that is located in the north of Boronda Road Future Growth Area. The design capacity for each of these three wells is 1,200 gpm each. The first of these is scheduled to come online in 2020 (Cal Water 2015).

Recent and Existing Weather Conditions

According to the California Department of Water Resources, California is experiencing record wet conditions following five consecutive years of drought. In 2015, the state had

record low statewide mountain snowpack of only five percent of average. The three driest consecutive years of statewide precipitation in the historical record were in 2012-14. Water year 2017 (October 1, 2016-September 30, 2017) has surpassed the wettest year of record (1982-83) in the Sacramento River and San Joaquin River watersheds and is close to becoming the wettest year in the Tulare Basin (set in 1968-69). Mountain snowpack is already well above the April 1 seasonal averages throughout the Sierra Nevada, with the southern Sierra being more than 200 percent of average for the year to date.

California experiences the most extreme variability in yearly precipitation in the nation. The summary on California Precipitation by the Center for Western Weather and Water Extremes at the Scripps Institution explains how large storms (often atmospheric river storms) contribute to those extreme changes. Water year 2017 has been an active year for atmospheric river storms.

The potential for wide swings in precipitation from one year to the next shows why the state must be prepared for either flood or drought in any year. Although this year may be wet, dry conditions could return again next year. 2017 may be only a wet outlier in an otherwise dry extended period. Unfortunately, the scientific ability to determine if next year will be wet or dry (known as sub-seasonal to seasonal forecasting, or long-range weather forecasting) isn't yet capable of delivering reliable predictions (California Department of Water Resources 2017).

Groundwater Supply, Demand, and Basin Overdraft

There is no available data regarding how the 2016-2017 storms have affected the Salinas Valley Groundwater Basin (groundwater basin). The following discussion is based upon reports prepared prior to the 2016-2017 storms.

Groundwater is currently the dominant source of water supply for agricultural and municipal water demands in the Salinas Valley, as well as all of unincorporated Monterey County. Agricultural water use represents approximately 90 percent of all water used in the Salinas Valley (Brown & Caldwell 2016, pp. 2-4 – 2-5). Urban water supply to Salinas is currently derived exclusively from groundwater. There are no sources of imported water available to augment groundwater supplies within the district or within the groundwater basin. For this reason, the condition of groundwater resources from a supply and demand perspective is important in considering potential effects of increased water demand that would result from development of the proposed project. Due to the growth of urban development and agricultural activities over time, demand for groundwater has increased, resulting in impacts on groundwater availability and quality.

The project site is situated in the foothills at the north-western end of the Salinas Valley, a relatively narrow, elongated, fault down-dropped, sedimentary basin in the California

Central Coast Range. The uplifted mountainous boundary consists of older granitic, metamorphic and marine sedimentary rocks of the Salinian tectonic block. Beneath the valley, a thick sequence of Tertiary marine sedimentary rocks is overlain by late Tertiary to Recent non-marine sedimentary deposits of fluvial and alluvial fan origin. The uppermost 1,000 feet, or more, of this non-marine sequence contains the fresh ground-water basin that is utilized for various water supply purposes.

Cal Water extracts groundwater from two hydraulically connected sub-basins of the groundwater basin known as the Pressure Subarea and the East Side Subarea. Much of the water supply for the Salinas area is extracted from the Pressure Subarea. The Pressure Area is a region of gradually declining groundwater elevations and is characterized by three confined aquifer systems, overlain and separated by thick clay layers that act as aquicludes. These aquifers named for their relative depths are known as the "180-foot", the "400-foot", and "900-foot" aquifers. The groundwater level in the East Side Area is declining more rapidly than any other area in the groundwater basin. The East Side Area is comprised of unconfined, randomly scattered water bearing strata (Yarne & Associates 2016).

As described in Cal Water's 2015 Urban Water Management Plan (UWMP), the groundwater basin was in an overdraft condition at the time the UWMP was adopted. The state has designated the 180-foot and 400-foot aquifers as critically over-drafted. While the basin remains unadjudicated, the California Department of Water Resources has listed the groundwater basin as a high priority. The main concern of the overdraft is not water level, but rather seawater intrusion into these two aquifers. Seawater intrusion threatens the quality of water extracted from the aquifers.

The UWMP notes the annual non-drought overdraft of the groundwater basin is approximately 45,300 AFY. Because of the hydrologic continuity between the ocean and the aquifers of the Pressure Area, seawater has been intruding into these aquifers at a rate of approximately 28,800 AFY. During droughts, the annual overdraft can escalate to between 150,000 and 300,000 AFY per year.

Refined data on the imbalance of the groundwater basin can be found in the Brown & Caldwell's State of the Salinas River Groundwater Basin. That report investigates conditions in "Zone 2C" of the groundwater basin. Zone 2C is comprised of seven of the sub-basins within the groundwater basin. The report further focuses on the four water-producing subareas, including the Pressure Subarea and the East Side Subarea, that produce nearly all of the reported groundwater use within Zone 2C. The report states that the basin appears to be out of hydrologic balance. The average annual groundwater extraction for the four noted subareas that compose Zone 2C was about 523,000 AFY from 1959 to 2013. The average annual change in storage was about 17,000 to 24,000 AFY, including seawater intrusion. Based on the continued large storage declines in the East Side and Pressure Subareas (and

resulting groundwater declines and seawater intrusion), the current distribution of groundwater extractions is not sustainable. Seawater intrusion can account for up to 18,000 AFY of the total storage loss of 24,000 AFY. It is stated that sustainable use of groundwater can only be achieved by aggressive and cooperative water resources planning to mitigate seawater intrusion and groundwater head declines (Brown & Caldwell 2015, p. ES-16). Brown & Caldwell note three possible options for reducing seawater intrusion impacts. These include: 1) reducing pumping in the Pressure and East Side subareas; 2) shifting pumping to areas farther away from the coast as long as it is shifted to areas far enough inland; and 3) shifting pumping from the 180-foot and 400-foot aquifers to the deep 900-foot aquifer. Regarding the latter, it is uncertain whether this is a viable option given lack of information about connectivity between the three aquifers and whether pumping in the 900-foot aquifer would lead to the onset of regional seawater intrusion (Brown & Caldwell 2015, pp. 6-3 – 6-4).

Intruding seawater has advanced into the 180-foot aquifer to within one mile of Cal Water's closest well. Cal Water has shifted production as much as possible out of the 180-foot and East Side aquifers and located it further south and more in the 400-foot aquifer of the Pressure area. Cal Water does not pump from the 900-foot aquifer. No change was observed in the location of the intrusion contours between the years 2011 and 2013, the most recent year for which analysis is available. It is possible that the first two years of the current drought did not have an apparent effect on the movement of the seawater intrusion front (Brown & Caldwell 2015, p. ES-13).

Current/Planned Water Projects to Reduce Groundwater Overdraft

Seawater intrusion into the Salinas Valley Groundwater Basin has been a problem for many years. A solution was identified as early as 1946 when the State of California proposed a three-part remedy:

- Construct several large reservoirs to capture excess storm flow on the upper reaches of the Salinas River and its tributaries;
- Recharge groundwater in the upper valley and Forebay sub-areas of the Salinas Valley with the captured runoff; and
- Extract portions of the augmented groundwater and transmit it via a conveyance system to the East Side and Pressure sub-areas of the basin so that the water users in this northern-most region of the valley can reduce their use of groundwater.

The first two parts of this solution have been constructed and are in operation. Nacimiento and San Antonio reservoirs were built and are operated by the Monterey County Water Resources Agency. The water that they capture is released in a controlled manner to recharge the aquifers in the upper and forebay areas through the natural riverbeds. The final part of the solution however, has not been implemented (Cal Water 2016).

A number of additional projects have been implemented, are currently being implemented, or are planned to reduce overdraft and reduce/halt seawater intrusion within the groundwater basin. Several of these are summarized below.

Castroville Seawater Intrusion Project. The Castroville Seawater Intrusion Project was completed in 1998. It generates recycled water for use by agricultural water users in the Castroville area during the irrigation season. By providing recycled water for agricultural use, the need for groundwater pumping to meet agricultural demand is significantly reduced. This in turn results in reduced intensity and rate of seawater intrusion.

Salinas Valley Water Project. The Monterey Regional Water Pollution Control Agency (MRWPCA) has utilized a collaborative effort with Salinas Valley interests to develop the Salinas Valley Water Project to address water resources management issues within the Salinas Valley. The project was approved in 2003. The Salinas Valley Water Project provides for the long-term management and protection of groundwater resources in the basin by meeting the following objectives: stopping seawater intrusion and providing adequate water supplies and flexibility to meet current and future (year 2030) needs. In addition, the project provides the surface water supply necessary to attain a hydrologically balanced groundwater basin in the Salinas Valley. The Salinas Valley Water Project includes Nacimiento Dam spillway modification and a rubber dam on the Salinas River near Marina, to allow diversion of river water for treatment and piping to nearby farms for irrigation. The project is also intended improve flood control and Nacimiento Dam safety, recharge the aquifers and improve river flow for migration of the federally designated threatened Steelhead trout. Construction of the Nacimiento spillway modifications was completed in 2009 and Salinas River diversion facility began its operation in April 2010 (http://www.mcwra.co.monterey.ca.us/salinas_valley_water_project_I/salinas_valley_water_project_I.php).

Salinas Valley Groundwater Project Phase II. A conceptual design for Phase II of the Salinas Valley Water Project has been developed by Monterey County Water Resources Agency (MCWRA). Under this plan additional winter flood flows would be diverted from the Salinas River. These diversions, up to 135,000 AFY, could be directly used by urban customers. A technical memorandum was completed in 2013. Phase II incorporates two surface water diversion points and will be accompanied by conveyance and delivery facilities. The project is not yet funded, so its implementation has not begun (Phone Conversation with Howard Franklin, Monterey County Water Resources Agency, December 7, 2016).

Pure Water Monterey Project. The Pure Water Monterey Groundwater Replenishment Project will serve northern Monterey County. The project will provide both purified recycled

water for recharge of the Seaside Groundwater Basin that serves as drinking water supply, and recycled water to augment the existing Castroville Seawater Intrusion Project's crop irrigation supply. The project is jointly sponsored by the MRWPCA and the Monterey Peninsula Water Management District, and also includes participation by the City of Salinas, the Marina Coast Water District, and the MCWRA.

The project includes collection of a variety of new source waters and conveyance of that water to the MRWPCA's regional wastewater treatment plant (regional plant) for treatment and recycling. New source waters include: 1) water from the City of Salinas agricultural wash water system; 2) storm water flows from the southern part of Salinas and the Lake El Estero facility in Monterey; 3) surface water and agricultural tile drain water that is captured in the Reclamation Ditch and Tembladero Slough; and 4) surface water and agricultural tile drain water that flows in the Blanco Drain. The project would enable California American Water Company to reduce its diversions from the Carmel River system by up to 3,500 acre-feet per year by injecting the same amount of purified recycled water into the Seaside Groundwater Basin. The project would also provide additional recycled water for agricultural irrigation in northern Salinas Valley through the Castroville Seawater Intrusion Project's agricultural irrigation system. It is anticipated that in normal and wet years approximately 4,500 to 4,750 acre-feet per year of additional recycled water supply could be created for agricultural irrigation purposes. In drought conditions, the project could provide up to 5,900 acre feet per year for crop irrigation (Denise Duffy & Associates 2016). It is this latter source of new agricultural water that would replace an equivalent volume that is now pumped from the groundwater basin and contributes to groundwater overdraft and seawater intrusion.

Interlake Tunnel. Monterey County is currently in the process of developing the Interlake Tunnel Project which would connect Lake Naciemento and Lake San Antonio in southern Monterey County. The project is intended to move water between the two reservoirs to improve water storage and flood control.

Other Water Supply Projects. Cal Water's UWMP includes discussion of new water supply projects from which Cal Water may be able to obtain water supply that would reduce its need to pump groundwater from the groundwater basin. Chief among these are seawater desalination projects that are in the planning and review process. These include the Coastal Water Project in Marina and the DeepWater Desal project in Moss Landing. Other potential water sources include enhanced recycling and expanded surface water diversions from the Salinas River.

10.2 REGULATORY SETTING

State

Sustainable Groundwater Management Act

On September 16, 2014, Governor Brown signed into law Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319 (AB-1739, SB-1168, and SB-1319). This three-bill legislative package is known collectively as the Sustainable Groundwater Management Act. The act was amended in the later part of 2015 by Senate Bill 13, Senate Bill 226 and Assembly Bill 1390 to provide clarity to the original law and guidance on groundwater adjudications. This new legislation defines sustainable groundwater management as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results". The legislation defines "undesirable results" to be any of the following effects caused by groundwater conditions occurring throughout the basin:

- Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply;
- Significant and unreasonable reduction of groundwater storage;
- Significant and unreasonable seawater intrusion;
- Significant and unreasonable degraded water quality;
- Significant and unreasonable land subsidence; and
- Surface water depletions that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The legislation provides for financial and enforcement tools to carry out effective local sustainable groundwater management through formation of groundwater sustainability agencies consisting of local public agencies, water companies regulated by the California Public Utilities Commission, and mutual water companies. The legislation requires that groundwater sustainability agencies within high and medium priority basins under the California Statewide Groundwater Elevation Monitoring Program subject to critical conditions of overdraft prepare and submit a groundwater sustainability plan for the basin by January 31, 2020, and requires groundwater sustainability agencies in all other groundwater basins designated as high or medium priority basins to prepare and submit a groundwater sustainability plan by January 31, 2022. Following state approval, the basin would thereafter be managed under the groundwater sustainability plan. The legislation does not require adjudicated basins to develop groundwater sustainability plans, but they are required to report their water use.

The key intended outcomes and benefits of the Sustainable Groundwater Management Act are numerous, and include:

- Advancement in understanding and knowledge of the State's groundwater basins and their issues and challenges;
- Establishment of effective local governance to protect and manage groundwater basins;
- Management of regional water resources for regional self-sufficiency and drought resilience;
- Sustainable management of groundwater basins through the actions of Groundwater Sustainability Agencies, utilizing State assistance and intervention only when necessary;
- All groundwater basins in California are operated to maintain adequate protection to support the beneficial uses for the resource;
- Surface water and groundwater are managed as "a Single Resource" to sustain their interconnectivity, provide dry season base flow to interconnected streams, and support and promote long-term aquatic ecosystem health and vitality;
- A statewide framework for local groundwater management planning, including development of sustainable groundwater management best management practices and plans;
- Development of comprehensive and uniform water budgets, groundwater models, and engineering tools for effective management of groundwater basins;
- Improved coordination between land use and groundwater planning; and
- Enforcement actions as needed by the SWRCB to achieve region-by-region sustainable groundwater management in accordance with the 2014 legislation.

To assist in attaining the above outcomes, the California Department of Water Resources (DWR) will provide groundwater sustainability agencies with the technical and financial assistance necessary to sustainably manage their water resources. The benefits of these outcomes include:

- A reliable, safe and sustainable water supply to protect communities, farms, and the environment, and support a stable and growing economy; and
- Elimination of long-term groundwater overdraft, an increase in groundwater storage, avoidance or minimization of subsidence, enhancement of water flows in stream systems, and prevention of future groundwater quality degradation.

As part of its responsibilities to implement the act, DWR has defined the 180-foot, the 400-foot, and the Paso Robles aquifers within the groundwater basin as high priority basins. Groundwater sustainability plans must be implemented for these aquifers by 2020. The other aquifers within the groundwater basin must have adopted plans by 2022 (Cal Water 2016).

In March 2017, the Salinas Valley Basin Groundwater Sustainability Agency was formed and is responsible for preparing groundwater sustainability plans. A groundwater sustainability plan is anticipated by January 31, 2022. The goal is to achieve sustainability 20 years after adoption of the plan (http://www.salinasgroundwater.org/).

California Green Building Standards Code

The Green Building Standards Code (CALGreen), which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect on January 1, 2011. These comprehensive regulations will achieve major reductions in greenhouse gas emissions, energy consumption and water use. Water use reductions are specified based on performance standards contained in the code that target indoor plumbing fixtures such as toilets, showerheads, faucets, etc., as well as outdoor water use through installation of irrigation controllers.

California Water Service Urban Water Management Plan

California's Urban Water Management Plan Act requires urban water suppliers to prepare an UWMP every five years and to file this plan with the DWR, the California State Library, and any city or county within which the supplier provides water supplies. All urban water suppliers, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet annually are required to prepare an UWMP.

The UWMP is a foundational document and source of information about the Cal Water Salinas District's historical and projected water demands, water supplies, supply reliability and vulnerabilities, water shortage contingency planning, and demand management programs, including water conservation planning. Among other things, it is used as:

- A long-range planning document by Cal Water for water supply and system planning; and
- Source data on population, housing, water demands, water supplies, and capital improvement projects used in regional water resource management plans prepared by wholesale water suppliers and other regional planning authorities, general plans prepared by cities and counties, and statewide and broad regional water resource plans prepared by DWR, SWRCB, or other state agencies.

The Urban Water Management Plan Act was enacted in 1983. Over the years, it has been amended in response to water resource challenges and planning imperatives confronting California. A significant amendment was made in 2009 as a result of the governor's call for a statewide 20 percent reduction in urban water use by 2020. Colloquially known as 20x2020, the Water Conservation Act of 2009 (also referred to as SB X7-7) required urban retail water suppliers to establish water use targets for 2015 and 2020 that would result in statewide water savings of 20 percent by 2020. Beginning in 2016, urban retail water suppliers are

required to comply with the water conservation requirements in SB X7-7 in order to be eligible for state water grants or loans. Chapter 5 of the Cal Water's Salinas District UWMP contains the data and calculations used to determine compliance with these requirements (Cal Water 2016, pp. 11-12).

County

Monterey County General Plan

The Monterey County General Plan Land Use Element and Public Services Element provide the following goals, policies and objectives pertaining to water supply and distribution applicable to this project. Land Use Element goals LU-1 and LU-2 aim to concentrate development in areas where suitable access to services and facilities such as water and sewer.

Las Palmas Ranch Specific Plan

The following policies in the Las Palmas Ranch Specific Plan are applicable to water supply for the project site.

Policies

1. As the first priority, the entire development must be served by a public utility water company providing domestic and fire flow in accordance with the requirements of State and County health and fire agencies. If a public utility water company satisfactory to the County is no feasible, then an incorporated mutual water company may perform this function.
2. Availability of water meeting the requirements of Policy No. 1 shall be demonstrated as to each increment of development prior to filing of a final subdivision map or issuance of any building permit for that increment of development.
3. Plans and specifications for domestic and fire flow water supply shall be submitted to local and state environmental health agencies for approval.

10.3 THRESHOLDS OR STANDARDS OF SIGNIFICANCE

The CEQA Guidelines (Appendix G) indicates that a project may have a significant effect on the environment if it would:

- Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or

- Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level; or
- Not have sufficient water supplies available to serve the project from existing entitlements and resources including groundwater, and would require new or expanded entitlements.

These are the issues evaluated in the impact analysis below.

10.4 ENVIRONMENTAL IMPACT ANALYSIS

Water Demand

The projected water use of the proposed project is provided in Table 10-1, River View at Las Palmas Water Demand Estimate.

Table 10-1 River View at Las Palmas Potable Water Demand Estimate[1, 2]

Casitas							
	Units	Kitchen Sink	Bath Sink	Toilet	Shower	Misc (Washer)	Totals
A	10	10	10	10	10	1	
B	12	12	24	24	24	12	
C	4	4	8	8	8	4	
Total Fixtures	26	26	42	42	42	17	
Fixture Unit Value		2	1	1.8			
Fixture Units		52	42	75.6	84	34	
Total Fixture Units							287.6
Water Demand (AFY)							2.876 AFY
Assisted Living							
Beds	Use Factor						Totals
52	0.085 AFY/Bed						4.42 AFY
Memory Care							
Beds	Use Factor						Totals
48	0.085 AFY/Bed						4.08 AFY
Total Project							11.376 AFY

SOURCE: EMC Planning Group 2017

NOTE:
[1] Monterey Peninsula Water Management District Fixture Unit Values for Residential Use and Commercial Use Factors have been used to determine project water demand.
[2] Landscaping on the project site would use recycled water.

The Las Palmas Ranch Specific Plan FEIR estimated total water demand for the Specific Plan area to be 922 AFY. When proposed, the specific plan included 1,578 housing units, which was evaluated in the specific plan EIR. However, the Board of Supervisors ultimately approved only 1,031 housing units, approximately sixty-five percent of the original number. Sixty-five percent of 922 AFY would result in a corresponding water demand of approximately 599 AFY.

California Water Service, the water purveyor for the specific plan area, has provided a "can and will serve" for the proposed project. Although California Water Service was not able to provide a current figure for actual water use in the specific plan area, California American Water Company, the wastewater treatment provider for the specific plan area, records wastewater flows from a period of January 2016 to February 2017as an average of 162,398 gpd (email communication with Mike Magretto, California American Water Company, March 13, 2017). This amount of wastewater flow, 162,398 gpd, equals approximately 182 AFY, less than half of the 599 AFY projected as water supply required and approved for the specific plan area. Common landscaped areas of the specific plan area utilize recycled water, but private residences use potable water for outdoor landscaping. However, water used for outdoor use is considered as a component of total water demand for a residence and therefore would not be considered additional water demand not already accounted for in totals. Therefore, it can be concluded that the proposed project and the entire Las Palmas Ranch development combined would use significantly less groundwater than projected in the original EIR. These numbers are presented in Table 10-2, Projected, Existing, and Proposed Las Palmas Ranch Water Use.

Table 10-2 Projected, Existing, and Proposed Las Palmas Ranch Water Use

	1982 EIR	Approved Specific Plan	Actual Water Use	Proposed Project Water Use	Total Water Use
Water Demand	922 AFY	599 AFY	182 AFY	11.376 AFY	193.376 AFY

SOURCES: 1982 Las Palmas Ranch EIR, 2017 California American Water Company, 2017 EMC Planning Group

The proposed project is subject to compliance with County of Monterey code requirements for water conservation. Furthermore, the project site has existing "purple pipe" infrastructure to use recycled water for all on-site landscaping, further reducing demand for domestic water on the site.

Construction or Expansion of New Water Facilities

Based on the "can and will serve" letter provided by California Water Service, the proposed project would not require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. The "can and will serve" letter indicates the applicable water purveyor for the site is able to provide water supply for the proposed project based on its existing facilities. Although the proposed project would increase water demand on the project site, no new or expanded facilities, the construction of which could result in environmental impacts, would be required to meet that demand. No impacts would occur associated with construction of new water treatment, storage and distribution facilities.

Groundwater Impacts

As presented earlier in the groundwater setting of this section, the average annual groundwater extraction for the four noted subareas that compose Zone 2C was about 523,000 AFY from 1959 to 2013. The proposed project would add 11.376 acre feet per year, which is a 0.002 percent increase. This contribution to the cumulative existing impact is not considerable, and therefore, is a less-than-significant impact.

10.5 Impact Summary and Mitigation Measures

IMPACT **Increase Potable Water Demand for the Service Area by Approximately 11.376 AFY (Less than Significant)**

As identified in Table 10-1, River View at Las Palmas Water Demand Estimate, the proposed project would have an estimated potable water demand of 11.376 AFY. The "can and will serve" letter provided by California Water Service for the proposed project indicates the applicable water purveyor for the site is able to provide water supply for the proposed project based on its existing facilities. This would be a less-than-significant impact.

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11.0
Effects Not Found to be Significant

11.1 CEQA Requirements

CEQA Guidelines 15128 states that an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. The following environmental topics were reviewed.

11.2 Agricultural/Forest Resources

The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, or timberland. The Monterey County General Plan identifies the property as Grazing Land. The project has been lightly grazed over the years, but only as part of a much larger grazing operation on adjoining properties. The project site is not of a sufficient size to be considered a viable agricultural unit for anything other than grazing. The project will not have an impact on existing or adjoining agricultural uses, or result in the loss or conversion of forest land to non-forest use.

11.3 Cultural Resources

According to the Monterey County General Plan Archaeological Sensitivity Map, the project site is located in an area of low archaeological sensitivity; thus, the likelihood of resources being present on the project site is low. The project site was surveyed in 1977 for the Las Palmas Ranch Specific Plan Final Environmental Impact Report, and it was concluded that no archaeological resources are known or suspected to exist on the project site. The report identified two nearby historical resources, an early adobe and the "Corey House", neither of which resource is located on the project site. Protection of the Corey House was addressed with the development of the neighboring Las Palmas Ranch #1 and the adobe site was determined to be beyond restoration as almost nothing remains, thus development would not impact these nearby resources. The 2010 Monterey County General Plan policies set forth comprehensive measures to avoid and minimize adverse impacts on archaeological resources (Policies OS-6.1, OS-6.2, OS-6.3, OS-6.4 and OS-6.6), paleontological resources (OS-7, OS-7.2, OS-7.3, OS-7.4, and OS-7.5) and human remains (OS-8.1, OS-8.2, OS-8.3, OS-8.4, OS-8.5, OS-8.6, and OS-8.7) in the event unanticipated resources are found on the project site during ground disturbance activities. The project would not impact cultural resources.

11.4 GEOLOGY & SOILS

The project site is not located within any earthquake fault zones as delineated on the most recent Alquist-Priolo Earthquake Zoning Map and no faults cross the site. As with the entire region, ground shaking from earthquakes could be very strong within the project site. The proposed project is designed in accordance with applicable building codes and engineering standards that have been developed to address the forces to which buildings are subjected during earthquakes and should allow the buildings to withstand earthquakes without severe damage. According to the geologic hazards report and soil engineering feasibility investigation prepared for the project (Landset Engineers, Inc. 2014., Appendix F), the project site is in an area of low to very low potential for liquefaction, lateral spreading, subsidence, expansion, collapse, dynamic compaction, and ridgetop shattering. Erosion control measures would be implemented as a condition of project approval to ensure there would be no related impacts.

While the steep slopes on the north and south flanks of the site are prone to landslides and slope failure, future building foundations will be located within the geologically suitable building envelope as described in the report, which would avoid environmental impacts related to landslides. As displayed in Figure 11-1, Project Site Slopes, a portion of the area of the project site proposed for development is located in an area of slopes greater than 25% slope.

The proposed project would connect to the Las Palmas Wastewater Treatment Plant, operated by California American Water Company and no septic systems are proposed. Therefore, the suitability of geologic and soils conditions for septic systems is not relevant to the proposed project.

During the course of the 2017 winter storms a portion of the property had a "minor colluvial slope failure…due to unseasonably above average precipitation …[which posed] … a low risk to human health and safety." (Landset, March 29, 2017)

As a condition of approval, all recommendations included in the geotechnical report would be implemented in the design and construction of the project to ensure that there would be no significant impacts associated with geologic hazards.

11.5 HAZARDOUS MATERIALS

The proposed project is a senior living facility and, as such, may involve patient care which could result in the routine transport, use or disposal of biohazardous materials and/or medical waste. The proposed project would be required to adhere to state and local

Figure 11-1 Project Site Slopes

Source: Gateway Engineering, Inc. 2015

Figure 11-1

Project Site Slopes

River View Senior Project Draft EIR

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regulations for the appropriate transport, use, and disposal of medical waste, which would ensure that there would not be related environmental impacts. The project site does not contain contaminated land or hazardous materials sites as compiled pursuant to Government Code Section 65962.5 and would not result in the release or upset of hazardous that would result in exposure of sensitive land uses to such materials. The nearest airport, Salinas Municipal Airport is more than four miles from the site; this distance precludes the possibility for the project to create an aviation safety hazard. The Monterey County General Plan Safety Element identifies emergency evacuation routes throughout the county. These routes include River Road and State Route 68. While future development may add to demand for use of emergency routes, such development would not physically interfere with the ability of the county to deploy these routes for evacuation. According to the Monterey County General Plan, the project site is not located in a high or very high fire hazard area. Every building, structure, and/or development shall be constructed to meet the minimum requirements specified in the current adopted state building code, state fire code, Monterey County Code Chapter 18.56, Monterey County General Plan, and other nationally recognized standards. Additionally, the Monterey County Regional Fire District reviewed the project plans and determined that adequate fire flow exists feed the property fire protection systems. The fire district has also recommended a number of conditions of approval that reflect the current requirements of the Uniform Fire Code and the fire district regulations. These requirements will be included in the final project construction drawings to be reviewed and approved by the fire district prior to issuance of building permits. The fire district will subsequently inspect the in-progress construction and will have to give a final approval prior to occupancy.

The proposed project will not result in hazard impacts.

11.6 SURFACE HYDROLOGY

Erosion and Water Quality

The undeveloped project site currently drains naturally down the existing slopes and drainage ways or percolates through the soil back into the groundwater basin. Development of the proposed project would alter existing storm water drainage conditions by replacing undeveloped land with impervious surfaces. The change in surface conditions would result in a substantial increase in storm water runoff from the site as a portion of the storm water would no longer percolate though exposed soil. Storm water runoff from the project site during construction and after development is completed would be greater in volume and velocity than under existing conditions. Changes in the rate or volume of storm water delivered into receiving waters can result in hydromodification of downstream drainage courses, resulting in further erosion and related water quality degradation.

The proposed project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Construction Activities. In Monterey County, the Central Coast Regional Water Quality Control Board (RWQCB) is charged with enforcing NPDES requirements, including runoff management programs that include Best Management Practices to control erosion and sedimentation. Through implementation of Best Management Practices (BMPs), construction of the proposed project would not impact surface and groundwater water quality from storm water runoff during construction.

The proposed project must implement water quality control measures consistent with the post-construction water quality criteria contained in the RWQCB NPDES requirements. A storm water control plan consistent with NPDES requirements to be approved by the county has been developed for the project which identifies measures for site design, storm water runoff source control, runoff reduction, storm water treatment; and site specific BMP measures that would be incorporated in the project design to ensure there would be no post-construction impacts related to erosion or degradation of water quality.

Storm Water Runoff

The proposed project would result in increases in impervious area that in turn would result in increases in the volume and rate of storm water runoff relative to existing conditions.

The project site is undeveloped and does not currently contain storm drainage infrastructure. However, the proposed project design includes storm drainage facilities (collection, conveyance and disposal) as detailed in the storm water control plan (Gateway Engineering 2016) to meet the generation of storm water runoff. Proposed development must not exceed the pre-project rate of discharge. The purpose is to reduce the potential for increased erosion within receiving waters due to an increase in the rate of storm water flow. The storm water control plan includes on-site storm water control measures designed to achieve a no net increase in rate of storm water discharge relative to pre-project conditions. This reduces the potential that runoff from new development could exceed the capacity of storm drainage facilities and contribute to off-site flood hazards.

A county reviewed storm water control plan in conformance with storm drainage facility design standards and NPDES requirements would be implemented ensuring that there would be no impacts related to localized flooding.

Flood Hazards

According to the Monterey County General Plan FEMA Floodplain Map, the Salinas River's projected 100-year flood plain follows River Road to the north. The project site is elevated substantially above River Road and is not located within the 100-year flood plain. Thus, there would be no impacts related to flood hazards.

Dam Inundation

The Monterey County General Plan EIR concluded that potential for severe inundation in the Salinas Valley should either Nacimiento or San Antonio dams, located approximately 70 miles southeast of the project site, fail is unlikely. Nacimiento and San Antonio dams are routinely inspected, monitored, and studied by the Department of Water Resource's Division of Safety of Dams to verify their integrity and safety which further minimizes risk to property and public safety within project site. Therefore, there would not be impacts related to dam failure and inundation.

11.7 MINERAL RESOURCES

According to the Mineral Resources Map in the General Plan EIR, the project site does not contain any mineral extraction operations or known deposits of minerals of statewide or local importance. Therefore, the proposed project would not result in the loss of availability of minerals of statewide or local importance.

11.8 NOISE

Noise Levels Exceeding Standards/Substantial Increase in Ambient Noise Levels

The proposed project is not expected to produce significant temporary or continuous noise from on-site operations that would significantly increase exiting ambient noise levels. The proposed project does not include point sources of high intensity noise or sources that are unique or excessive relative to other types of residential uses. Due to the nature of the use, the daily activities would be mostly confined inside of buildings. Any outdoor activities are expected to be low intensity passive uses that would not generate excessive noise. Design of the facility, berms, and landscaping would further preclude noise from travelling off the property. On-site operations would not generate noise with an intensity that exceeds county standards at the nearby noise sensitive residential use.

Construction activities on the project site would be subject to Monterey County construction noise standards, including:

- Construction shall occur only during times allowed by ordinance/code unless such limits are waived for public convenience;
- All equipment shall have properly operating mufflers; and
- Lay-down yards and semi-stationary equipment such as pumps or generators shall be located as far from noise-sensitive land uses as practical.

Increases in traffic generation may result during construction activities and from employee trips to and from the facility, which may elevate noise levels along local roadways. The

Monterey County General Plan EIR concluded that the General Plan Noise Element provides sufficient analysis thresholds and recommendations for noise attenuation to effectively mitigate transportation noise impacts.

Safety Element Policy S-7.6 (acoustical analysis) states that an acoustical analysis shall be part of the environmental review process for projects when noise-sensitive receptors are proposed in areas exposed to existing or projected noise levels that are "normally unacceptable" as defined by the County. The area of the project site is not considered by the County to experience normally unacceptable noise levels (Connolly, Luke. Email message to consultant, 9 April 2017). The proposed project is consistent with the development anticipated by the general plan, area plan, and specific plan. Thus, the project would not result in significant traffic noise impacts.

Groundborne Vibration

As with any type of construction, vibration may at times be perceptible by the adjacent neighborhood. However, construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time within the project site and would not result in environmental impacts related to exposure of people and structures to excessive groundborne vibration

Excessive Airport Noise

There are no private airstrips in the immediate vicinity of the project site. The Salinas Municipal Airport is 4.5 miles to the north. Monterey Regional Airport is approximately 8.5 miles to the east. The Marina Airport is approximately 6.5 miles to the northwest. Therefore, the persons living or working on the property would not be subject to excessive noise levels related to airports.

11.9 PUBLIC SERVICES

The proposed project may contribute to future demand for new fire and police protection facilities, the construction of which could have potential to create adverse impacts. Neighboring Las Palmas Ranch #1 currently has private security for the subdivision. The proposed project would participate proportionately in the cost of that security and will provide additional on-site security, which would lessen the need for on-site police protection. Additionally, the project would implement all fire district design recommendations that reflect the current requirements of the Uniform Fire Code and the fire district's regulations to ensure fire-safe structures.

The Monterey County General Plan EIR determined that impacts would be less than significant with full buildout of the general plan because if new facilities are required in the

future to meet demand, they would be subject to independent CEQA review; mitigation of any significant impacts that may be identified would be required where feasible.

The developer of the proposed project would be required to pay development impact fees. Government Code Section 65995(h) provides that payment of development impact fees in accordance with its provisions constitutes "full and complete mitigation of the impacts" of new development.

Las Palmas Ranch does provide a limited amount of private security. There is a guard at the main entrance during the day time but the post is not staffed in the evening or nighttime hours. A periodic patrol through the subdivision is done at night. Given the project is for a senior assisted living community it is unlikely there will be a significant exposure to the need for increased police protection. Fire and ambulance service already exists and there is an agreement in place that the subdivision is a "no-siren zone."

As a senior living facility, the project would not generate any students. Therefore, the project would not result in the need for new or physically altered school facilities.

There would likely only be minimal use of existing recreational facilities in the area. Due to the projects nature and design as a senior assisted living facility containing its own recreational facilities, it is unlikely residents would use off site recreation facilities. No new recreation facilities will be required to be constructed other than those which will be incorporated into the project.

There would be no impacts related to public services.

11.10 RECREATION

Due to the nature of the project being a senior assisted living facility and having on-site recreational facilities incorporated into the project design, it is unlikely residents would use off site recreation facilities. Construction of new recreation facilities would not be required aside from than those which would be incorporated into the project. There would be no environmental impacts associated with construction of new recreational facilities.

11.11 SOLID WASTE

The proposed project will generate solid waste during its construction and operations. Solid waste would likely be delivered to the Johnson Canyon Landfill that is operated by the Salinas Valley Solid Waste Authority, or to other facilities that may be developed or secured by the Salinas Valley Solid Waste Authority over time. The proposed project would be encouraged to participate in the Salinas Valley Solid Waste Authority's recycling and waste reduction programs consistent with state solid waste diversion regulations. The Salinas Valley Solid Waste Authority is responsible for ensuring that the cumulative solid waste

disposal capacity needs of its member jurisdictions are met over time through expansion of existing landfill capacity, creation of new landfill capacity, and/or deployment of waste conversion technology that substitutes for landfill disposal capacity. The Johnson Canyon Landfill service life is approximately 38 years at current permitted capacity and rate of waste fill with no new waste diversion programs (Salinas Valley Solid Waste Authority 2017). If the landfill is expanded, the anticipated service life will range from 80 to 100 years. In the event that the landfill reaches full capacity, the Salinas Valley Solid Waste Authority has several options to choose from including expanding the landfill beyond its current permitted capacity, reconsidering expansion of the closed Jolon Road Landfill, or seeking landfill capacity in the region but outside of their service area (i.e. Monterey Peninsula Landfill located north of Marina, Kirby Canyon Landfill in Santa Clara County or John Smith Landfill in San Benito County).

The Salinas Valley Solid Waste Authority is responsible for ensuring that its solid waste management activities are consistent with related state regulatory requirements. As needed, the Salinas Valley Solid Waste Authority would, through its member agencies, implement programs (e.g. recycling, diversion, etc.) with which new development must participate. The proposed project would not have significant impacts related to solid waste.

11.12 WASTEWATER

The Las Palmas Ranch development is served by two wastewater treatment plants: Las Palmas Wastewater Treatment Plant #1 and #2. The treatment plans are operated by California American Water Company. The design capacity for Las Palmas Wastewater Treatment Plant #1 is 90,000 gallons per day (gpd) and the design capacity for Las Palmas Wastewater Treatment Plant #2 is 145,000 gpd, for a total design capacity of 235,000 gpd. Wastewater flows for the entire Las Palmas Ranch development are directed to one common area and thereby split from this area to one of the treatment plants. According to California American Water Company records of flows from a period of January 2016 to February 2017, average wastewater flows are 162,398 gpd (email communication with Mike Magretto, California American Water Company, March 13, 2017) thereby allowing extra capacity of approximately 72,602 gpd.

The proposed project is estimated to generate approximately 12,070 gpd based on wastewater generation rates of 80 gpd per person used to estimate wastewater generation within the Las Palmas Ranch development. Therefore, with 72,602 gpd available capacity, the treatment plants would be able to accommodate additional wastewater flows from the proposed project. Even a more conservative wastewater generate rate of 100 gpd for the proposed project would fall well within the existing wastewater treatment capacity for the area. A “can and will serve” letter from California American Water Company to project representatives, dated November 3, 2015, regarding the proposed project and the availability of the wastewater treatment to be accommodated is included as Appendix G.

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12.0 Energy

12.1 CEQA Requirements

Public Resources Code section 21100 (b)(3) requires that an environmental impact report include a detailed statement setting forth mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.

Development of the proposed project will result in an increased demand for energy during construction and operations, once the facility has been developed and occupied. Primary sources of energy use will be transportation fuels, electricity, and natural gas.

For purposes of this analysis, implementation of the project would be considered to result in wasteful or inefficient consumption of energy if it failed to comply with related general plan policies and failed to implement energy demand reduction/efficiency measures. A multitude of state regulations and legislative acts are aimed at improving vehicle fuel efficiency, energy efficiency, and energy conservation. Several of these are described below. Through the CEQA and development review processes, the county will implement these state regulations and guide development of the project to reduce energy consumption.

12.2 Methodology

Estimates of projected energy demand are based on a number of sources cited in this section including the greenhouse gas emissions (GHG) modeling. The GHG modeling assumes that full buildout of project would occur by 2020.

12.3 Energy Setting

Pacific Gas and Electric, one of the largest utilities in the state of California, is the primary purveyor of electricity and natural gas in the county. Pacific Gas and Electric operates a major network of electricity and natural gas transmission lines within its service area, including Monterey County.

For more than a decade, federal, state and regional energy agencies and energy providers have been focused on reducing growth in fossil-fuel based energy demand, especially in the form of transportation fuels and electricity. Key environmental goals have been to reduce air

pollutants and GHGs. As a result, investments in a range of energy efficiency and conservation programs and technologies to improve transportation fuel efficiency have been increasing, as has the focus on land use planning as a tool to reduce vehicle trips/lengths and transportation related energy use as well as the promotion of alternative modes of transportation.

Population growth is a key driver for increasing residential and commercial energy demands and for water pumping and other energy-intensive services, and the county's population and energy demand will continue to grow. In order to minimize the need for additional electricity generation facilities, both the state and regional energy purveyors have focused investments on energy conservation and efficiency over the past decades. Further, as required under the state's Renewable Portfolio Standard, Pacific Gas and Electric is well on its way to obtaining a minimum of 33 percent of its retail power from renewable sources by 2020 based on data from the California Public Utilities Commission (http://www.cpuc.ca.gov/rps_homepage/). The state has recently passed legislation requiring that by 2030, 50 percent of the power supply provided by retail power providers, including Pacific Gas and Electric, must be obtained from renewable sources.

As the project site is vacant, it does not contain any developed uses that are sources of energy demand.

12.4 ENERGY REGULATORY SETTING

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar™ program) and transportation (e.g., vehicle fuel efficiency standards). At the state level, Title 24 of the California Administrative Code sets energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the Flex Your Power program promotes conservation in multiple areas. Refer also to Section 3.8 Greenhouse Gas Emissions.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil. The Federal Energy Regulatory Commission reviews proposals to build liquefied natural gas terminals and interstate natural gas pipelines; it also licenses hydropower projects. Licensing of hydroelectric under the authority of Federal Energy Regulatory Commission includes input from state and federal energy, environmental protection, fish and wildlife, and water quality agencies.

National Energy Policy

The National Energy Policy, established in 2001 by the National Energy Policy Development Group, is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future (National Energy Policy Development Group 2001). Key issues addressed by the energy policy are energy conservation, repair, and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

California Energy Commission

The California Energy Commission is California's primary energy policy and energy planning agency. Created by the California Legislature in 1974, the California Energy Commission has five major responsibilities: 1) forecasting future energy needs and keeping historical energy data; 2) licensing thermal power plants 50 megawatts or larger; 3) promoting energy efficiency through appliance and building standards; 4) developing energy technologies and supporting renewable energy; and 5) planning for and directing state response to energy emergencies. Under the requirements of the California Public Resources Code, the California Energy Commission, in conjunction with the Department of Commerce's Division of Oil, Gas, and Geothermal Resources, is required to assess electricity and natural gas resources on an annual basis or as necessary. The Systems Assessment and Facilities Siting Division of the California Energy Commission provides coordination to ensure that needed energy facilities are authorized in an expeditious, safe, and environmentally acceptable manner.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is the State agency responsible for regulating services and utilities, protecting consumers, safeguarding the environment and assuring Californians' access to safe and reliable utility infrastructure and services. The essential services regulated by the CPUC include electric, natural gas, telecommunications, water, railroad, rail transit and passenger transportation companies. The CPUC was established by the State Legislature as the Railroad Commission in 1911; it was subsequently redesignated through a Constitutional Amendment as the Public Utilities Commission in 1946.

California 2008 Energy Action Plan Update

The state adopted the *California Energy Action Plan* in 2003, followed by the *Energy Action Plan II* in 2005. The current plan, the *California 2008 Energy Action Plan Update*, is California's principal energy planning and policy document. The updated document examines the state's ongoing actions in the context of global climate change, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure

that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. The *California 2008 Energy Action Plan Update* establishes energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods) as the first-priority actions to address California's increasing energy demands. Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossil-fired generation is supported. The *California 2008 Energy Action Plan Update* examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change (California Energy Commission 2008).

California Building Codes

California's *Energy Efficiency Standards for Residential and Nonresidential Buildings* (California Code of Regulations, Title 24, Part 6) were first established in 1978 to reduce California's energy consumption. The standards were most recently updated in January 2013. Energy efficient buildings require less electricity, natural gas, and other fuels, the use of which creates GHG emissions. Since initial adoption in 1978, California's per capita building energy use has increased about nine percent, while the national per capita building energy use has increased by more than 50 percent (California Energy Commission 2008, 2012).

The *Green Building Standards Code* (also known as CALGreen), which requires all new buildings in the state to be more energy efficient and environmentally responsible, took effect in January 2011 and was most recently updated in January 2013. These comprehensive regulations are intended to achieve major reductions in greenhouse gas emissions, energy consumption, and water use (California Building Standards Commission 2015).

Energy Efficiency Act of 2006 (AB 2021)

This bill encourages all investor-owned and municipal utilities to aggressively invest in achievable, cost-effective, energy efficiency programs in their service territories. The results of this bill were expected to reduce forecasted electricity demand by 10 percent over 10 years from 2006 through 2016, offsetting the projected need to build 11 new major power plants.

California Assembly Bill No. 1493 ("Pavley I Rule")

AB 1493 was enacted on July 22, 2002. It requires CARB to develop and adopt regulations that improve fuel efficiency of vehicles and light-duty trucks. Pavley I requirements apply to these vehicles in the model years 2009 to 2016.

Advanced Clean Cars

In January 2012, CARB adopted an Advanced Clean Cars program, which is aimed at increasing the number of plug-in hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies.

Renewable Energy Legislation/Orders

The California Renewable Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20 percent of their retail sales with renewable power by 2017, was established by SB 1078 in 2002. The renewable portfolio standard was accelerated by seven years, to 20 percent by 2010, through SB 107 in 2006. The program was subsequently expanded by the renewable electricity standard approved by CARB in September 2010, requiring all utilities to meet a 33 percent target by 2020. SB 350, adopted in September 2015, increases the standard to 50 percent by 2030.

California Senate Bill 350 (Clean Energy and Pollution Reduction Act of 2015)

SB 350 was adopted in October 2015. It has several aspects. Among its requirements are that the State Energy Resources Conservation and Development Commission must establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030. Local publicly owned electric utilities are now required to establish annual targets for energy efficiency savings and demand reduction consistent with this goal. The bill also is intended achieve GHG reductions through increased investments in transportation electrification and notes that reducing GHGs to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 consistent with Executive orders S-03-05 and S-30-15 will require widespread transportation electrification.

California Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

This bill was adopted in September 2006. It established a new statewide GHG emissions reduction target of at least 40 percent below 1990 levels by the end of 2030. It represents an interim GHG reduction target designed to ensure that the state continues to adopt rules and regulations that keep the state on track to meet the 2050 statewide GHG reduction goal of 80 percent below 1990 levels by 2050 set forth in Executive Order S-03-05. The emissions reduction goal set in SB 32 sets expectations for GHG emissions reductions in the state in the

post-AB 32 2020 environment given that emissions reduction goals set forth in AB 32 will have been reached by 2020.

12.5 PROJECTED ENERGY CONSUMPTION

The three primary sources of long-term energy consumption from new development and operations will be fuel use in vehicles traveling within, and to and from the project, use of natural gas, and use of electricity. Each of these energy consumption sources is described below.

Transportation Fuel Use

Table 4.2, Trip Summary, of the CalEEMod presented in Appendix C of this draft EIR, results shows that at buildout, the project would generate approximately 690,549 travel miles annually (approximately 1,892 miles daily). This total is a composite based on total weekday, Saturday, and Sunday vehicle trips. The proposed project would result in an increase in vehicle trips and an increase in the volume of transportation fuel that would be consumed by trucks, light-duty vehicles, passenger cars, relative to existing conditions. The increase will add to the cumulative demand for transportation fuel locally and regionally.

County of Monterey Vehicle Miles Traveled (VMT) data for 2014 was obtained from the *California Department of Transportation (Caltrans) Highway Performance Monitoring System (HPMS) 2014 Public Road Data* (California Department of Transportation 2014; http://www.dot.ca.gov/hq/tsip/hpms/datalibrary.php). Total daily VMT in 2014 was estimated at 10,093,310 miles. At 1,892 daily VMT, the proposed project would represent less than 0.02 percent of the county daily VMT in 2014. At project buildout by 2020, this percentage would be even smaller as anticipated growth in the county would lead to additional total VMT countywide.

Vehicle miles traveled serves as a general proxy for the magnitude of transportation fuel consumption. The change in VMT with the project was input into the Emissions Factors (EMFAC) model (EMFAC2014 v1.0.7) to estimate the change in fuel demand that would result from the VMT increase. The proposed project would result in an increase in fuel demand of about 35,770 gallons per year (approximately 98 gallons per day) relative to the 2020 without project conditions.

Electricity

Section 5.3, Energy by Land Use - Electricity, in the CalEEMod results shows that at buildout, future uses within the site would demand approximately 509,321 kWh of electricity. This demand could be reduced by approximately 11,000 kWh of electricity with installation of energy efficient ENERGY STAR® appliances.

Energy Consumption Data Management System information maintained by the California Energy Commission shows that in 2015, total electricity consumption in the county was 2,660,172,821 kWh; 696,014,751 kWh of this total was attributable to residential uses (http://www.ecdms.energy.ca.gov/elecbycounty.aspx). The project electricity consumption at buildout would represent about 0.02 percent of total 2015 county consumption and likely a smaller percentage of total county consumption in the project buildout year of 2020 as electricity consumption in the county grows over time.

Natural Gas Use

Energy usage is typically quantified using the British Thermal Unit (BTU). The BTU is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, 100 cubic feet (one therm) of natural gas, and a kilowatt hour of electricity are 123,000 BTUs, 100,000 BTUs, and 3,400 BTUs, respectively.

Table 5.2 Energy by Land Use – Natural Gas, in the CalEEMod results shows that at buildout, future uses within the site would demand approximately the equivalent of 1,398,530 BTU (13.98 therms) of energy from natural gas use per year from space heating and other internal building uses. One therm is equivalent to 100,000 BTU.

According to Energy Consumption Data Management System information maintained by the California Energy Commission, in 2015, total natural gas consumption in Monterey County was approximately 102,464,303 therms (http://www.ecdms.energy.ca.gov/gasbycounty.aspx). The project consumption at buildout would represent less than 0.0001 percent of 2015 county consumption and a smaller percentage of total county consumption in the project buildout year of about 2020 as natural gas consumption in the county continues to grow over time.

12.6 GUIDANCE FOR ENERGY EFFICIENCY/CONSERVATION

Reduction of Energy Use - Regulatory Requirements

As described in the Regulatory Setting above, a number of federal and particularly state regulatory programs are being implemented to improve the efficiency of transportation fuel, natural gas, and electricity use. New development within the county must comply with the regulations, many of which are beyond the implementation control of county government and project developers. For example, in the transportation sector, the Pavley I and II standards and the Advanced Clean Car standards will result in improved transportation fuel efficiency. In the building energy use sector, implementation of CALGreen and Title 24 building standards will reduce natural gas and electricity consumption.

Monterey County General Plan

The 2010 general plan includes several policies which will directly and indirectly result in reduced energy consumption. The general plan includes Policy OS-10.11, which adopted a GHG emissions reduction target of 15 percent below 2005 levels by 2020 and required development of a GHG reduction plan for the county by 2013. Policy 0S-10.12 directs the county to adopt a Green Building Ordinance to require green building practices and materials for new development.

Green Building Ordinance

The Green Building Ordinance (18.11- Green Building Standards) was adopted by the county in 2013. The ordinance establishes standards and procedures to require development to comply with GreenPoint or LEED standards or their equivalent. These standards are in addition to, and achieve a greater level of efficiency that the current California Building Code Standards including the CALGreen mandatory requirements.

Las Palmas Ranch Specific Plan

Energy Conservation Policies

> 1. Each residential unit should be should be afforded adequate solar access for the operation of active and passive solar systems. Locating structures with their major axis oriented within 22.5 degrees of true east/west is generally the best means to insure adequate south-facing solar access. For single-family homes, the orientation is fairly simple to implement as is full access to the south wall for passive solar design. For multi-family units, orientation and access are more difficult; generally south roof access for active space hearing or domestic water hearing systems is considered sufficient.
>
> 2. Careful design of structures to utilize solar access and to control heat loss and heat gain can achieve significant energy conservation. When these design elements are coupled with passive design features (thermal storage units, south facing glass, domestic hot water systems and other energy conserving components), the energy conservation potential greatly increases. Support structures built by the developer such as commercial areas, swimming pools, recreation and community buildings should make maximum use of alternate energy sources both to reduce operation costs and to serve as community examples.

12.7 CONCLUSION

As discussed above, the proposed project would represent an extremely small fraction of the county's long-term energy consumption. State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, unnecessary

and inefficient use of energy for transportation. The County of Monterey has policies and regulations in place require that new development considers energy reduction and comply with standards that achieve a greater level of efficiency than current California Building Code Standards. Conformance to applicable energy conservation/efficiency regulations and standards would ensure that the proposed project would not result directly or indirectly result in inefficient, wasteful, and unnecessary consumption of energy.

In order to be consistent with the two Las Palmas Ranch Specific Plan policies presented above, the applicant shall implement the following mitigation measure:

Mitigation Measure

ENG-1 Prior to approval of building permits for each of the project components, the applicant shall submit a report to the Director of Planning demonstrating how the project is consistent with the energy conservation policies identified in the Las Palmas Ranch Specific Plan.

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13.0
Cumulative Impacts

13.1 CEQA Requirements

CEQA Guidelines section 15130 requires a discussion of cumulative impacts when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3), which states, "The project has possible environmental effects that are individually limited but cumulative considerable. Cumulatively considerable means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR. When the combined cumulative impacts associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting its conclusion that the cumulative impact is less than significant.

A lead agency may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and, therefore, is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the other identified projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

CEQA requires a cumulative development scenario to consist of either a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or, a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

13.2 CUMULATIVE DEVELOPMENT SCENARIO

CEQA requires a cumulative development scenario to consist of either:

- a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or,
- a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

For this EIR, the evaluation of cumulative impacts is based on implementation of the proposed project when considered in conjunction with development forecasts based on the buildout of County of Monterey General Plan. The general plan addresses development within the unincorporated areas of Monterey County with a planning horizon year of 2030 and buildout in 2092. Following adoption, the general plan, the county prepared and adopted area plans for seven sub-areas: North County, Greater Salinas Valley, Greater Monterey Peninsula, Cachagua, South County, and Toro, where the project site is located. Each area plan contains supplemental policies intended to more specifically guide land use activities and development in accordance with the local characteristics of each area.

The general plan addresses development that influences development planning and decision-making in the county. The general plan identifies the project site for medium density residential development. Thus, development on the project site, in some form, has been anticipated by future development projects for the county and specific project area.

The analysis of cumulative impacts for individual topic areas provided below generally assumes, unless otherwise noted, that the cumulative development scenario is existing and probable future development associated with buildout of the county general plan.

As allowed by CEQA Guidelines section 15130 (b)(1)(B), the EIR includes a summary of projections contained in the general plan to form the cumulative projects scenario; i.e. build-out of the general plan. The general plan EIR provides an estimate of approximately 10,015 new residential units and 500 acres of commercial development within the inland areas of unincorporated Monterey County (Table 3-8, New Growth by Planning Area, Community Area and Rural Center, 2006-2030 and 2092 Buildout).

For each topic area, an evaluation and determination as to whether the proposed project's impacts are cumulatively considerable is presented.

13.3 Cumulative Impacts and the Proposed Project's Contribution

As identified in Section 11.0 Effects Not Found to be Significant, the proposed project would have no impact or less-than-significant impacts for the following topics: Agricultural/Forest Resources, Cultural Resources, Geology & Soils, Hazardous Materials, Surface Hydrology, Mineral Resources, Noise, Public Services, Recreation, Solid Waste, and Wastewater. Therefore, the proposed project would not substantially contribute to potential cumulative impacts for these topics, and these topics are not further considered. Only environmental topics identified as having potential significant impacts which may thereby contribute to cumulative impacts are discussed in this EIR.

Aesthetics

The cumulative context for aesthetics impacts are areas of existing and potential future development within Monterey County. The county's general plan EIR concluded that buildout of the general plan with implementation of applicable goals, policies, and actions in the general plan, and specifically within area plans (including the Toro Area plan) would not result in significant impacts on scenic vistas or scenic highways. However, even with implementation of applicable goals, policies, and actions in the general plan, including area plans, the general plan EIR concluded that buildout of the general plan would result in significant and unavoidable impacts to visual character and light and glare impacts in the county.

The LPRSP FEIR (pp 56-59) recognized that the development of Las Palmas Ranch would "… be expected to change from the existing open land/agriculture to a more urban setting softened by landscaping, entry way treatment and architectural control." The LPRSP FEIR also states, "Given the distance from the highway (approximately 1/2-3/4 mile) and the level of development envisioned by the Toro Vista development [now Ferrini Ranch] visual impacts on Highway 68 are insignificant." The FIER goes on to prescribe mitigations measures for the Las Palmas Ranch development. The River View at Las Palmas project incorporated those measures into its design.

As identified in Chapter 5.0 Aesthetics, the proposed project would result in a less-than-significant impact, with mitigation, to altering the visual character of the site. However, as the development of the proposed project would contribute to the overall conversion of vacant county land to developed land, development of the proposed project is a contributor to the already identified significant and unavoidable impact for buildout of the general plan

for the county as a whole. As the project is required to mitigate for these visual impacts (AES-1, AES-2, AES-3), the project's contribution would not be considerable and therefore, would be less than significant.

As identified in Chapter 5.0 Aesthetics, the proposed project would have a less-than-significant impact from the introduction of new sources of light and glare on the project site with the implementation of Mitigation Measure AES-4. Therefore, the project's contribution to the county-wide significant light and glare impacts would not be considerable and therefore, would be less than significant.

Air Quality

The cumulative context for this topic is the effect of existing and future growth of the county general plan on the air quality of the North Central Coast Air Basin (air basin). As discussed in Section 6.0, Air Quality, the air basin is in non-attainment with state mandated thresholds for ozone and suspended particulate matter (PM^{10}).

The county general plan EIR identified significant impacts on regional air quality resulting from buildout of the general plan. Under cumulative conditions, there could be an increase in reactive organic gases (ROG), nitrogen oxides (NOx) and particulate matter (PM^{10}) and these cumulative impacts were determined to contribute considerably to cumulative impacts on air quality.

The proposed project would generate construction and operational emissions of ozone precursors and particulate matter that that would contribute to cumulative air quality impacts. As reported in Section 6.0, Air Quality, the proposed project is consistent with the air district's air quality management plan at 2020 and later time periods. Development of the project site would result in criteria pollutant emissions of ozone precursors and PM^{10} that exceed air district standards and for which the air basin is in nonattainment. According to the CalEEMod air quality modeling, the proposed project would generate operational PM^{10} and ROG emissions that would exceed the air district's thresholds during the construction phase of the project. Therefore, unmitigated project-related PM^{10} and ROG emissions would be cumulatively considerable.

However, implementation of Mitigation Measures AQ-1 – AQ-4 (Section 6.0, Air Quality) would reduce the project contribution to regional air quality impacts to less than cumulatively considerable. For these reasons, the proposed project's contribution to cumulative air quality impacts would not be cumulatively considerable.

Biological Resources

The cumulative context for impacts on biological resources varies with the type of resource being considered, as the range of any particular type of plant or wildlife resource varies in size and species concentration.

As reported in Section 7.0, Biological Resources, if not mitigated, the proposed project would result in contributing to the cumulative loss of important biological resources, including the direct losses of special-status plant and wildlife species and their habitat.

Implementation of the mitigation measures BIO-1 – BIO-6 identified in Section 7.0, Biological Resources, would reduce the project's impacts to biological resources to less than significant. Therefore, the proposed projects' contribution to the cumulative impact on biological resources would not be cumulatively considerable.

Greenhouse Gas Emissions

Global climate change is, as the name implies, a global phenomenon. Greenhouse gas emissions released to the atmosphere from a variety of human activities and natural processes that occur across the globe are contributing to global warming. While the U.S. emits the largest per capita volume of GHGs of any country in the world, other major countries contribute substantial volumes of emissions that continue to grow on a per capita basis. Because climate change is a global phenomenon, it is highly unlikely that any one development project located anywhere in the world would have a significant individual impact on climate change. It is the sum total of contributions of development around the world that contribute to the problem. Hence, global climate change is inherently a cumulative effect.

The individual contribution of a project to GHGs in the atmosphere can generally be quantified in terms of volume of greenhouse gas emissions that it generates. However, the precise indirect effects of that contribution are difficult if not impossible to identify due to the complexity of local, regional, and global atmospheric dynamics and to the broad scale at which global warming impacts such as sea level rise, increase in weather intensity, decrease in snowpack, etc. are known to occur.

As noted in Section 8.0, Greenhouse Gas Emissions, the proposed project as mitigated, would generate approximately 634.02 metric tons CO2e annually that contribute to climate change. Because the potential impacts of the proposed project are inherently considered in a cumulative context, the analysis in Section 8.0, Greenhouse Gas Emissions, is a cumulative impact assessment.

The resident population for this project is conservatively assumed to be the sum of all the casita beds (42) plus approximately one-quarter of the remaining 100 beds (25). As described in section 8.0, Greenhouse Gas Emissions, the one-quarter figure is based on the vehicle trip rates for care facilities, which are approximately one-quarter the rate for single-family residences. The total resident population would, therefore, be 67. The proposed project is projected to create 92 jobs at maximum capacity. Therefore, the service population is 159 (67 residents plus 92 employees). The 2020 GHG efficiency metric for the proposed project is3.99 MT CO_2e/service population (634.02 MT/159). This is below the threshold of significance of

4.88 MT CO_2e/service population. Consequently, the project's GHG emissions fall below the threshold of significance and are not cumulatively considerable.

Traffic

2030 Cumulative Traffic Volume Forecasts

Future traffic growth projections for the study area were derived based on 2030 traffic volume projections within the 2010 Monterey County General Plan. A growth rate of 15 percent was applied to the existing traffic volumes to estimate 2030 cumulative traffic volumes. This is more conservative than the projections developed for SR 68 in the draft scenic highway plan for SR 68 currently being prepared by TAMC, which is based on the Fort Ord Reuse Authority travel demand model that projected slightly less than 10 percent growth along the SR 68 corridor between the years 2016 and 2035.

Cumulative Plus Project Conditions Intersection Operations

Two study intersections are projected to operate at unacceptable levels of service under cumulative plus traffic conditions. Intersection levels of service are summarized in Figure 9-4, Intersection Levels of Service. LOS calculation worksheets are included in the project's traffic impact assessment (Appendix D).

The Reservation Road / SR 68 WB Ramp intersection is projected to operate at an unacceptable LOS D during the PM peak hour under cumulative plus project traffic conditions. The River Road / SR 68 EB Ramp intersection is projected to operate at an unacceptable LOS D during the AM peak hour under cumulative plus project traffic conditions (Higgins 2017).

The project's traffic impact study (Higgins 2017) identified that the following improvements would result in acceptable levels of service at the two intersections. The project's traffic impact study concludes that both of the two options listed below would be feasible, but that each would require Monterey County and Caltrans coordination.

1. Add a dedicated southbound right-turn land at the Reservation Road / SR 68 WB Ramp intersection and a second southbound left-turn lane at the River Road / SR 68 EB intersection.
2. Convert the Reservation Road / SR 68 WB Ramps and River Road / SR 68 EB Ramp intersections to roundabouts.

Per CEQA Guidelines Section 15130(3), a project's contribution is less than cumulatively considerable if a project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. Therefore, by paying TAMC and Monterey County traffic impact fees, which could be used for either or both

mitigation options listed above, the proposed project would have a less than cumulatively considerable impact on the identified intersections.

IMPACT At a Cumulative Level, the Proposed Project Would Add Vehicle Trips to the Reservation Road and State Route 68 Westbound Ramp Intersection and the River Road and State Route 68 Eastbound Ramp Intersection (Less than Significant with Mitigation)

The proposed project would add vehicle trips to the Reservation Road and State Route 68 Westbound Ramp Intersection and the River Road and State Route 68 Eastbound Ramp Intersection. These intersections are projected to operate at unacceptable levels of service under cumulative plus traffic conditions.

Mitigation Measures

CTRA-1 The applicant shall pay Transportation Agency for Monterey County and County of Monterey traffic impact fees.

Cumulative Plus Project Conditions Road Segment Operations

River Road is expected to continue to operate at LOS C between SR 68 and Las Palmas Road and LOS D from Las Palmas Road to Las Palmas Parkway under 2030 cumulative Conditions, according to the 2010 Monterey County General Plan Environmental Impact Report. These are considered acceptable levels of service (Higgins 2017).

As previously stated, SR 68 currently operates at LOS F. The projected increase in traffic volumes under cumulative conditions would exacerbate these conditions and the project would contribute to these cumulative conditions.

IMPACT At a Cumulative Level, the Proposed Project Would Add Vehicle Trips to State Route 68 (Significant and Unavoidable)

Under cumulative plus project conditions, SR 68 is projected to operate at LOS F. The proposed project would contribute to incremental increases in cumulative traffic volumes on SR 68 and would, therefore, contribute to a significant cumulative impact.

There are no mitigation measures available to reduce cumulative-level impacts to a less-than-significant level, based on the Monterey County and Caltrans threshold. However, the project would be required to pay regional traffic impact fees that would serve as some mitigation for impacts to SR 68 improvements. Nevertheless, the project would not be directly implementing any improvements to offset its impacts and would, therefore, have an unmitigated significant impact on SR 68. At this time, it is unknown whether any Caltrans/TAMC improvements to the corridor (e.g., widening and/or roundabouts along the route) would improve the level of service on SR 68.

Furthermore, the applicant has proposed mitigation measures TRA-1 and TRA-2, which would reduce impacts to the traffic circulation in the vicinity of the project site. Additionally, the applicant shall be required to pay TAMC and Monterey County traffic impact fees, per mitigation measure CTRA-1. However, the mitigation measures would not change the proposed project's significant and unavoidable impact to SR 68.

Water Resources

The cumulative development scenario for water supply is development within the boundary of the Salinas Valley Groundwater Basin. As described in Section 10.0, Water Supply, past and present development within the boundary of the groundwater basin has contributed to groundwater overdraft conditions - a significant cumulative impact. The impact analysis presented in Section 10.0, Water Supply, is also a cumulative impact analysis, as the water demands on one project would not significantly affect the groundwater supply.

The proposed project would contribute to the water demand anticipated by the county's general plan and accounted for in the urban water management plan. According to the urban water management plan demand for California Water Service's Salinas District, municipal water demand is anticipated to increase from 19,180 acre-feet per year in 2020 to 23,154 acre-feet per year in 2040 (California Water Service 2016). The 11.376 acre-feet per year required for the proposed project when completed, comprises approximately .05 percent of the California Water Service Salinas District's demand by 2020 and approximately .04 percent of the projected year 2040 demand.

Although the proposed project would increase water demand on the project site, no new or expanded facilities, the construction of which could result in or contribute to environmental impacts, would be required to meet that demand. No new cumulative impacts would occur associated with construction of new water treatment, storage and distribution facilities already in progress or planned to meet demand in the California Water Service Salinas District. The proposed project's contribution to a cumulative increase in water demand would not result in impacts that are greater than those studied and addressed by the general plan EIR and the recently updated urban water management plan. Therefore, the proposed project's contribution to cumulative impacts to water supply is not cumulatively considerable.

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14.0
Growth Inducing

14.1 CEQA REQUIREMENTS

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to adverse environmental effects.

A project may foster economic or population growth through:

- Creating economic expansion (e.g., changes in revenue base or employment expansion, etc.). Economic expansion effects can include those resulting from the "multiplier effect." A "multiplier" is an economic term used to describe inter-relationships among various sectors of the economy. The multiplier effect relates to the direct employment effect of a project, as well as indirect and induced employment growth. The multiplier effect includes the notion that the on-site, direct employment and population growth resulting from a project is not the complete picture of the growth it has potential to create;
- Removing an impediment to growth, examples of which include changing zoning or general plan designations to enable a greater level of development than was previously foreseen, expanding the capacity of infrastructure beyond that needed to serve a specific project such that the barriers for additional growth are reduced, or establishing an essential public service that previously did not exist and which is necessary to support additional growth; or
- Providing new housing that accommodates additional population growth.

14.2 ECONOMIC GROWTH INDUCEMENT

The proposed project is anticipated to employ 92 persons for operations of the proposed assisted living facility, in addition to creating temporary local employment opportunities

during construction of the facility. The environmental impacts resulting from the direct economic growth inducing effects of the proposed project are evaluated in other sections of this EIR.

It is likely that revenues generated by new development and portions of the incomes received by new employees will be fed back into the local economy. The increased investment in the local economy could in turn have a multiplier effect that indirectly causes business and population growth beyond the boundaries of the immediate project area. The magnitude of this effect, and the types of and locations where new growth could occur as a result are unknown. Consequently, it would be speculative to project the potential environmental effects of indirect population and business growth.

14.3 Removing Impediments to Growth

The project site has been previously identified for development, as it is designated medium density residential in the Monterey County 2010 General Plan, the Las Palmas Specific Plan and the Zoning Ordinance (Title 21). There are, therefore, no policy or regulatory impediments to growth as far as development on the project site. However, as discussed in other areas of this document, approval of the proposed project would require an amendment to the Las Palmas Specific Plan and a use permit and design review from Monterey County.

14.4 Population Growth Inducement

The project site is a 15.67-acre lot (Parcel Q) created as part of the Las Palmas Subdivision #1. The site is located within the boundary of the Las Palmas Ranch Specific Plan. Adopted in 1983, the Las Palmas Ranch Specific Plan designated the property Medium Density Residential (MDR). This is currently the land use designation for the site in the Monterey County 2010 General Plan and Toro Area Plan. The Las Palmas Ranch Specific Plan was adopted by the Monterey County Board of Supervisors in 1983. Also in 1983, the Board of Supervisors adopted the Toro Area Plan, incorporating the Las Palmas Ranch Specific Plan by reference. The property was zoned "MDR/2.61-D" (Medium Density Residential, 2.61 units per acre, with Design Control). This zoning density would allow up to 40 dwellings for approval on the project site. In 2010, the Board of Supervisors adopted the Monterey County 2010 General Plan, including an updated Toro Area Plan, with the project site remaining identified for medium residential development at 2.61 units/acre.

The proposed project includes an amendment to the Las Palmas Specific Plan. The Specific Plan designates the project site for medium density residential development. The proposed project falls under the County's general definition of a residential care facility in that the project will be licensed by the State of California to provide "…24-hour residential care and varying levels and intensities of medical or non-medical care, supervision, services or assistance to persons living in a residential setting." The proposed project is not a residential use under the County codes or the specific plan and the project does not provide dwelling

units that will operate or function as independent units. Therefore, the project would not result in a direct population increase.

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15.0
Significant Unavoidable Impacts

15.1 SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

Based on the environmental analysis provided in Chapters 5-14 of this EIR, most of the impacts associated with the proposed project would be reduced to a level of insignificance through the implementation of mitigation measures. However, the project would result in significant unavoidable impacts as summarized below.

Traffic and Circulation

IMPACT The Proposed Project Would Add Vehicle Trips to State Route 68, which Currently Operates at Level of Service F (Significant and Unavoidable)

The proposed project would add about one AM peak hour trip and four PM peak hour trips to the two-lane section of SR 68 immediately west of the Toro Park interchange. Project traffic will dissipate along the SR 68 corridor at the many crossroads including Torero Drive, San Benancio Road, Corral de Tierra Road, and Laureles Grade, resulting in less than one AM peak hour trip and about two PM peak hour trips west of Laureles Grade. Project traffic would be at or below one peak hour trip west of SR 218. Project-related traffic would not have any effect on SR 68 traffic operations. However, SR 68 currently operates at LOS F and Monterey County and Caltrans consider the addition of a single peak hour trip to be a significant impact when adding to a LOS F situation. Therefore, based on this threshold, the project would have a significant impact on the two-lane section of SR 68 between Toro Park and SR 218. As previously discussed, TAMC, Caltrans, and Monterey County have funding and are studying a variety of operational improvements along the corridor.

There are no mitigation measures available to reduce project-level impacts to a less-than-significant level, based on the Monterey County and Caltrans threshold, because the proposed project would have no effect on traffic operations. However, the project would be required to pay regional traffic impact fees that would serve as some mitigation for impacts to SR 68. Nevertheless, the project would not be directly implementing any improvements to offset its impacts and will, therefore, have an unmitigated significant impact on SR 68. At this time, it is unknown whether any Caltrans/TAMC improvements to the corridor (e.g., widening and/or roundabouts along the route) would improve the level of service on SR 68.

Furthermore, the applicant has proposed to implement the following mitigation measures, which would reduce impacts to the traffic circulation in the vicinity of the project site.

TRA-1 To reduce peak hour trip generation, specifically on SR 68, all employee shift changes for project site operations shall occur outside of morning and evening peak trip hours. A requirement to schedule all morning, day, and night shifts for project operations outside of peak hours shall be included as a condition of approval associated with the conditional use permit.

TRA-2 To reduce overall trip generation to and from the project site, the project developer shall prepare a detailed plan for shuttle service. Shuttle services shall be offered to residents to access areas on the Monterey Peninsula and in Salinas from the project site. Additionally, shuttle service to nearby transportation hubs for employees shall be offered in the shuttle service plan. The shuttle service plan shall be submitted for review and approval to Monterey County prior to approval of any building permits on the project site.

Implementation of these mitigation measures would reduce impacts to traffic circulation in the vicinity of the project site. However, the mitigation measures would not alter the proposed project's significant and unavoidable impact to SR 68.

IMPACT At a Cumulative Level, the Proposed Project Would Add Vehicle Trips to State Route 68 (Significant and Unavoidable)

Under cumulative plus project conditions, SR 68 is projected to operate at LOS F. The proposed project would contribute to incremental increases in cumulative traffic volumes on SR 68 and would, therefore, contribute to a significant cumulative impact.

There are no mitigation measures available to reduce cumulative-level impacts to a less-than-significant level, based on the Monterey County and Caltrans threshold. However, the project would be required to pay regional traffic impact fees that would serve as some mitigation for impacts to SR 68 improvements. Nevertheless, the project would not be directly implementing any improvements to offset its impacts and would, therefore, have an unmitigated significant impact on SR 68. At this time, it is unknown whether any Caltrans/TAMC improvements to the corridor (e.g., widening and/or roundabouts along the route) would improve the level of service on SR 68.

Furthermore, the applicant has proposed mitigation measures TRA-1 and TRA-2, which would reduce impacts to the traffic circulation in the vicinity of the project site. Additionally, the applicant shall be required to pay TAMC and Monterey County traffic impact fees, per mitigation measure CTRA-1. However, the mitigation measures would not change the proposed project's significant and unavoidable impact to SR 68.

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16.0
Irreversible Impacts

16.1 CEQA Requirements

CEQA Guidelines section 15126.2(c) requires a discussion of significant and irreversible changes that would be caused by the project if implemented. The use of non-renewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse in the future unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements that provide access to previously inaccessible areas generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified. Public Resources Code Section 21100(b)(2)(B) requires an EIR to include a detailed statement setting forth any significant effects on the environment that would be irreversible if a proposed project is implemented. Examples of irreversible environmental changes, as set forth in CEQA Guidelines Section 15126.2(c), include the following:

- The proposed project would involve a large commitment of nonrenewable resources such that removal or nonuse thereafter is unlikely;
- The primary and secondary impacts of a proposed project would generally commit future generations to similar uses (e.g., a highway providing access to a previously inaccessible area); or
- The proposed project involves uses in which irreversible damage could result from any potential environmental accidents associated with the proposed project.

Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

16.2 Proposed Project Effects

The proposed project would include the consumption of non-renewable building materials and energy resources during the construction phase, as well as the ongoing consumption of energy for lighting, air conditioning, space and water heating, and travel to and from the site during the life of the project. The consumption of such resources is typical of this type of development and would result in an irreversible commitment of natural resources for

construction and operations of the proposed project. The proposed project does not involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

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17.0
Alternatives

17.1 CEQA Requirements

CEQA Guidelines section 15126.6(a) requires a description of reasonable alternatives to the proposed project, or to the location of the project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. It also requires an evaluation of the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project, but must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. CEQA Guidelines section 15126.6(b) further requires that the discussion of alternatives focus on those alternatives capable of eliminating any significant adverse environmental impacts or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. CEQA Guidelines section 15126.6(e) stipulates that a no project alternative be evaluated along with its impacts.

CEQA Guidelines section 15126.6(d) requires the EIR to present enough information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. CEQA Guidelines section 15126.6(e) requires the identification of an environmentally superior alternative. If the "No Project" alternative is the environmentally superior alternative, then the environmentally superior alternative amongst the remaining alternatives must be identified.

17.2 Alternatives Considered

The following alternatives to the project are considered:

1. Alternative 1: No project/no development;
2. Alternative 2: No project/minimum use;
3. Alternative 3: No project/existing zoning; and
4. Alternative 4: Reduced project.

Each of these alternatives is described below, followed by an analysis of how each alternative may reduce impacts associated with the proposed project.

Alternative 1: No Project/No Development

CEQA Guidelines section 15126.6 (e) requires the "no project" alternative be evaluated along with its impacts. The "no project" alternative analysis must discuss the existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Alternative Description

The "no project/no development" alternative assumes no development would occur on the project site. The project site would continue to be vacant land, partially used for grazing. Under this alternative, there would be no potential adverse impacts to aesthetics, air quality biological resources, greenhouse gas emissions, transportation and traffic, or water supply.

Alternative 2: No Project/Minimum Use

Alternative Description

The "no project/minimum use" alternative assumes the proposed project would not be constructed or operated on the project site. Instead, this alternative considers the construction of the minimum allowable use on the subject property, which would be one single family dwelling and any accessory structures considered incidental to residential use, such as barns and storage buildings.

Aesthetics

The proposed project would impact scenic vistas and the visual character of the site, and would introduce new sources of light and glare to the project site and vicinity. Impacts to scenic vistas, the visual character of the site, and the introduction of new sources of light and glare would be potentially significant impacts, but would be reduced to less-than-significant levels with the application of Mitigation Measures AES-1, AES-2, AES-3, and AES-4.

Alternative 2 would have less aesthetic-related impacts than the proposed project. Although possible to have aesthetic impacts based on the size and location on the project site of any structures related to a single-family residence, any potential impacts would be less than the proposed project. However, this form of development may still be within the public viewshed from scenic vista points, would change the visual character of the site from undeveloped to developed, and would also introduce new sources of light and glare to the project site and vicinity. Similar mitigation measures to reduce impacts to a less-than-significant level as for the proposed project would likely be applicable to Alternative 2,

depending on proposed site design. However, as there would be no discretionary approval for the project, having enforceable mitigation measures applied to the site would be unlikely.

Air Quality

The proposed project would have air quality-related impacts related to emissions during construction of the proposed project on the site. These impacts would be potentially significant impacts, but would be reduced to less-than-significant levels with the application of Mitigation Measures AQ-1, AQ-2, AQ-3, and AQ-4.

Alternative 2 would have less air quality-related impacts than the proposed project. Construction activities on the project site for one single family residence and associated structures would have construction related emissions; however, based on the reduced scale of construction, construction emissions would not represent significant impacts and no mitigation measures would likely be required to reduce impacts to a less-than-significant level.

Biological Resources

The proposed project would impact biological resources, including potential loss or disturbance of American badgers, potential loss or disturbance of burrowing owls, potential loss or disturbance of Monterey dusky-footed woodrats, potential loss or disturbance of special-status bats, and potential loss or disturbance of nesting birds. All potential impacts can be reduced to less-than-significant levels with implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6. The proposed project would also have a less-than-significant impact on impeding the movement of common wildlife.

Alternative 2 would have much fewer potential biological impacts than the proposed project. Construction activities on the project site for one single family residence and associated structures would minimal impacts significant impacts to biological resources because of a much smaller building footprint.

Greenhouse Gas Emissions

The proposed project's greenhouse gas emissions would be less than significant and no mitigation measures are required. Alternative 2 would result in fewer greenhouse gas emissions, which would be less than significant and no mitigation measures would be required.

Transportation and Traffic

As a combined assisted living facility (100 beds) and detached assisted living units units (26 units; 42 beds), based on ITE trip generation rates for each category, the proposed project would generation approximately 363 daily trips (266 for assisted living facility and 96 for the detached assisted living units. The proposed project would result in less-than-significant

impacts to area intersections and roadways segments of River Road. However, the proposed project would result in a significant and unavoidable impact of adding additional traffic to SR 68.

Based on trip generation rates for single family homes in the Las Palmas development, one single family residences on the project site would generate approximately 7.1 daily trips.

Therefore, Alternative 2 would result in a decreased amount of daily trips to and from the project site and can be expected to have less impacts than the proposed project. However, as even one single family residence could result in additional traffic on SR 68 during the AM and/or PM peak hours, Alternative 2 would also result in a significant and unavoidable impact.

Water Supply

The proposed project would have an estimated water demand of 11.376 AFY. Applying the water demand assigned to the casita units of the proposed project (2.876 AFY for 26 units) for the conceptual build-out of one single family residential unit on the project site would be significantly less. Therefore, while the proposed project would result in a less-than-significant impact to water supply, Alternative 2 would result in a lower water demand.

Alternative 3: No Project/Existing Zoning

Alternative Description

The “no project/existing zoning” alternative assumes the proposed project would not be constructed or operated on the project site. However, considering that the project site is designated for medium density residential development, it is reasonable to assume that up to 40 dwelling units could be approved and constructed on the project site. Although, it is worth noting that other use categories could also be considered for this alternative. Based on existing zoning for the project site, the following uses could be established on the project site:

- Public and quasi-public uses including churches, cemeteries, parks, playgrounds, schools, public safety facility, public utility facilities;
- Mobile home park;
- Agricultural employee housing;
- Christmas tree cutting and removal and other uses of similar agricultural nature;
- Other uses of a similar nature, density and intensity;
- Transitional Housing; or
- Supportive Housing.

Supportive housing is defined by the Monterey County Code as housing with no limit on length of stay that is occupied by a target population. ("Target population" means persons

with low income having one or more disabilities, including mental illness, HIV or AIDS, substance abuse, or other chronic health conditions, or individuals eligible for services provided under the Lanterman Developmental Disabilities Services Act (California Welfare and Institutions Code, section 4500 et seq.) and may include, among other populations, adults, emancipated youth, families, families with children, elderly persons, young adults aging out of the foster care system, individuals exiting from institutional settings, veterans, and homeless people (MCC 21.06.1278)) and is linked to onsite or offsite services that assist the supportive housing resident in retaining the housing, improving their health status, and maximizing their ability to live and, when possible, work in the community. Transitional housing and transitional housing development is considered as buildings configured as rental housing developments, but operated under program requirements that call for the termination of assistance and recirculation of the assisted unit to another eligible program recipient at some predetermined future point in time of no less than six months. The county's zoning code describes each use as being contained within allowed housing units of the zoning district (Monterey County 2017).

Therefore, for purposes of this analysis, Alternative 3 considers that the 40 single-family residential units on the site could also be considered as 40 supportive housing units, or 40 transitional housing units. Each unit could have multiple bedrooms and house a number of persons. For purposes of this alternatives analysis, 40 units of single-family, supportive housing, or transitional units are considered to be roughly equivalent.

Aesthetics

The proposed project would impact scenic vistas and the visual character of the site, and would introduce new sources of light and glare to the project site and vicinity. Impacts to scenic vistas and the introduction of new sources of light and glare would be potentially significant impacts, but would be reduced to less-than-significant levels with the application of Mitigation Measures AES-1, AES-2, AES-3, and AES-4.

Alternative 3 would have similar aesthetic-related impacts as the proposed project, as development on the site of up to 40 residential units would be expected to occur. This form of development would still be within the public viewshed from scenic vista points, would change the visual character of the site from undeveloped to developed, and would also introduce new sources of light and glare to the project site and vicinity. Mitigation measures applicable to the proposed project would also apply to Alternative 3.

Air Quality

The proposed project would have air quality-related impacts related to emissions during construction of the proposed project on the site. These impacts would be potentially significant impacts, but would be reduced to less-than-significant levels with the application of Mitigation Measures AQ-1, AQ-2, AQ-3, and AQ-4.

Alternative 3 would have similar air quality-related impacts as the proposed project, as development on the site of up to 40 residential units would be expected to occur. Construction activities on the project site for up to this number of residences would have construction related emissions which would be potentially significant. Mitigation measures applicable to the proposed project would also apply to Alternative 3.

Biological Resources

The proposed project would impact biological resources, including potential loss or disturbance of American badgers, potential loss or disturbance of burrowing owls, potential loss or disturbance of Monterey dusky-footed woodrats, potential loss or disturbance of special-status bats, and potential loss or disturbance of nesting birds. All potential impacts can be reduced to less-than-significant levels with implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6. The proposed project would also have a less-than-significant impact on impeding the movement of common wildlife.

Alternative 3 would have similar biological impacts as the proposed project, as development on the site of up to 40 residential units would be expected to occur. Mitigation measures applicable to the proposed project would also apply to Alternative 3.

Greenhouse Gas Emissions

The proposed project's greenhouse gas emissions would be less than significant and no mitigation measures are required. Alternative 3 would also result in greenhouse gas emissions which would be less than significant and no mitigation measures would be required.

Transportation and Traffic

As a combined assisted living facility (100 beds) and detached assisted living units (26 units; 42 beds), based on ITE trip generation rates for each category, the proposed project would generation approximately 362 daily trips (266 for assisted living facility and 96 for senior adult housing units. The proposed project would result in less-than-significant impacts to area intersections and roadways segments of River Road. However, the proposed project would result in a significant and unavoidable impact of adding additional traffic to SR 68.

Based on trip generation rates for single family homes in the Las Palmas development, 40 single family residences on the project site would generate approximately 284 daily trips.

Therefore, Alternative 3 would result in an increased amount of daily trips to and from the project site and can be expected to have greater impacts than the proposed project. Furthermore, Alternative 3 would also result in a significant and unavoidable impact to SR 68. Mitigation measures applicable to the proposed project would also apply to Alternative 3.

Water Supply

The proposed project would have an estimated water demand of 11.376 AFY. Applying the water demand assigned to the casita units of the proposed project (2.876 AFY for 26 units) for the conceptual build-out of up to 40 single family residential units on the project site would likely be less than 5.00 AFY. Therefore, while the proposed project would result in a less-than-significant impact to water supply, Alternative 3 would result in a lower water demand.

Alternative 4: Reduced Project

Alternative Description

The "reduced project" alternative includes a reduced development footprint. For conceptual purposes, Alternative 4 eliminates the casitas from the proposed project. This would result in the loss of 26 living units with 42 beds, representing 30 percent of the total beds of the proposed project, and would result in a proportionate reduction in environmental impacts. Therefore, under this reduced project scenario, development on the project site would include the assisted living facility and memory care living facility, and other associated site improvements.

Aesthetics

The proposed project would impact scenic vistas and the visual character of the site, and would introduce new sources of light and glare to the project site and vicinity. Impacts to scenic vistas and the introduction of new sources of light and glare would be potentially significant impacts, but would be reduced to less-than-significant levels with the application of Mitigation Measures AES-1, AES-2, AES-3, and AES-4.

Alternative 4 would have similar, albeit slightly less, aesthetic-related impacts as the proposed project, as development on the site of the assisted living facility and memory care facility would still be within the public viewshed from scenic vista points and would also introduce new sources of light and glare to the project site and vicinity. Mitigation measures applicable to the proposed project would also apply to Alternative 4.

Air Quality

The proposed project would have air quality-related impacts related to emissions during construction of the proposed project on the site. These impacts would be potentially significant impacts, but would be reduced to less-than-significant levels with the application of Mitigation Measures AQ-1, AQ-2, AQ-3, and AQ-4.

Alternative 4 would have similar air quality-related impacts as the proposed project, but to a lesser extent based on a reduced amount of construction activities that would occur on the site. Mitigation measures applicable to the proposed project would also apply to Alternative 4.

Biological Resources

The proposed project would impact biological resources, including potential loss or disturbance of American badgers, potential loss or disturbance of burrowing owls, potential loss or disturbance of Monterey dusky-footed woodrats, potential loss or disturbance of special-status bats, and potential loss or disturbance of nesting birds. All potential impacts can be reduced to less-than-significant levels with implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6. The proposed project would also have a less-than-significant impact on impeding the moment of common wildlife.

Alternative 4 would have similar impacts to biological resources as the proposed project, but to a lesser extent based on a reduced amount of development which would occur on the site. Mitigation measures applicable to the proposed project would also apply to Alternative 4.

Greenhouse Gas Emissions

The proposed project's greenhouse gas emissions would be less than significant and no mitigation measures are required. Alternative 4 would also result in greenhouse gas emissions that would be less than significant and no mitigation measures would be required. Furthermore, based on overall reduced development on the site, greenhouse gas emissions from Alternative 4 would be less than the proposed project.

Transportation and Traffic

As a combined assisted living facility (100 beds) and detached senior adult housing units (26), based on ITE trip generation rates for each category, the proposed project would generation approximately 362 daily trips (266 for assisted living facility and 96 for senior adult housing units). The proposed project would result in less-than-significant impacts to area intersections and roadways segments of River Road. However, the proposed project would result in a significant and unavoidable impact of adding additional traffic to SR 68 in the AM and PM peak hours.

Based on ITE trip generation rates for assisted living facilities, Alternative 4 would generate approximately 266 daily trips, as compared to 362 daily trips of the proposed project. Alternative 4 would result in fewer impacts to traffic than the proposed project. However, Alternative 4 would also result in a significant and unavoidable impact.

Water Supply

The proposed project would have an estimated water demand of 11.376 AFY. Demand for water supply of Alternative 4 would be less than the proposed project, based on the overall reduction in development on the project site, reflecting an overall reduced water demand for the site. The estimated water demand for Alternative 4 would be 8.5 AFY. Alternative 4 would result in a less-than-significant impact on water supply, however to a lesser extent than the proposed project.

17.3 ALTERNATIVES CONSIDERED BUT REJECTED

An alternative site was considered, but rejected from further consideration. The site is considered to be an appropriate location for the proposed project based upon the specific plan land use designation, County zoning designations, and the space available to allow the creation of a tranquil, park-like setting while also being located in a neighborhood setting. The proposed location also offers nearby amenities including hospitals and doctors on Romie Lane in west Salinas, shopping, and regional roadway access.

Having an alternative access to the project site was also considered as an alternative, but rejected from further consideration. Alternative access either directly from River Road or as a new internal subdivision roadway would not decrease impacts of the proposed project and may result in increased impacts as compared to the proposed project, such as increased traffic, visual, biological, and impacts to recreational areas associated with entry from River Road.

17.4 COMPARISON OF ALTERNATIVES

The alternatives are summarized and compared in a matrix format in Table 17-1, Project Alternatives Summary.

Table 17-1 Project Alternatives Summary

Environmental Topic	No Project/No Development	No Project/Min. Development	No Project/ Existing Zoning	Reduced Project
Aesthetics	-	-	=	-
Air Quality	-	-	=	-
Biological Resources	-	-	=	-
Greenhouse Gas Emissions	-	-	=	-
Transportation and Traffic	-	-	+	-
Water Supply	-	-	-	-
Project Objectives	Not Met	Not Met	Not Met	Partially Met

SOURCE: EMC Planning Group 2017

NOTE: (—) less, (=) similar, (+) greater

The no project/no development alternative would result in no potential adverse environmental impacts, but would not meet any of the proposed project objectives. The no project/minimum development alternative would result in less environmental impacts than the proposed project, but would not meet any of the proposed project's objectives. The no project/existing zoning alternative would result in a similar level of impacts as the proposed project; however, and would not meet the objectives of the proposed project. The reduced

project would have an overall reduction in intensity of potential impacts based on the overall reduction in development on the project site, but the reduced project alternative would only partially meet the objectives of the proposed project and may prove to be economically infeasible. Therefore, the environmentally superior alternative that would partially meet the objectives of the proposed project would be the reduced project alternative.

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19.0
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APPENDIX A

LAS PALMAS RANCH SPECIFIC PLAN AND FINAL EIR

LAS PALMAS RANCH SPECIFIC PLAN

MONTEREY COUNTY, CALIFORNIA

SEPTEMBER, 1983

MONTEREY COUNTY BOARD OF SUPERVISORS
William Peters, Chairman
Marc del Piero
Michal Moore
Dusan Petrovic
Barbara Shipnuck

MONTEREY COUNTY PLANNING COMMISSION
David Hendrick, Chairman
S. Gary Varga, 1st Vice Chairman
Calvin Reaves, 2nd Vice Chairman
Peter Cailotto
Louis Calcagno
Tom Glau
Manuel Jiminez
Thomas Mill
Lynn Riddle

MONTEREY COUNTY PLANNING DEPARTMENT
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Leblanc & Company, Economics
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Adopted by the Monterey County Planning Commission
April 15, 1983

Adopted by the Monterey County Board of Supervisors
September 20, 1983

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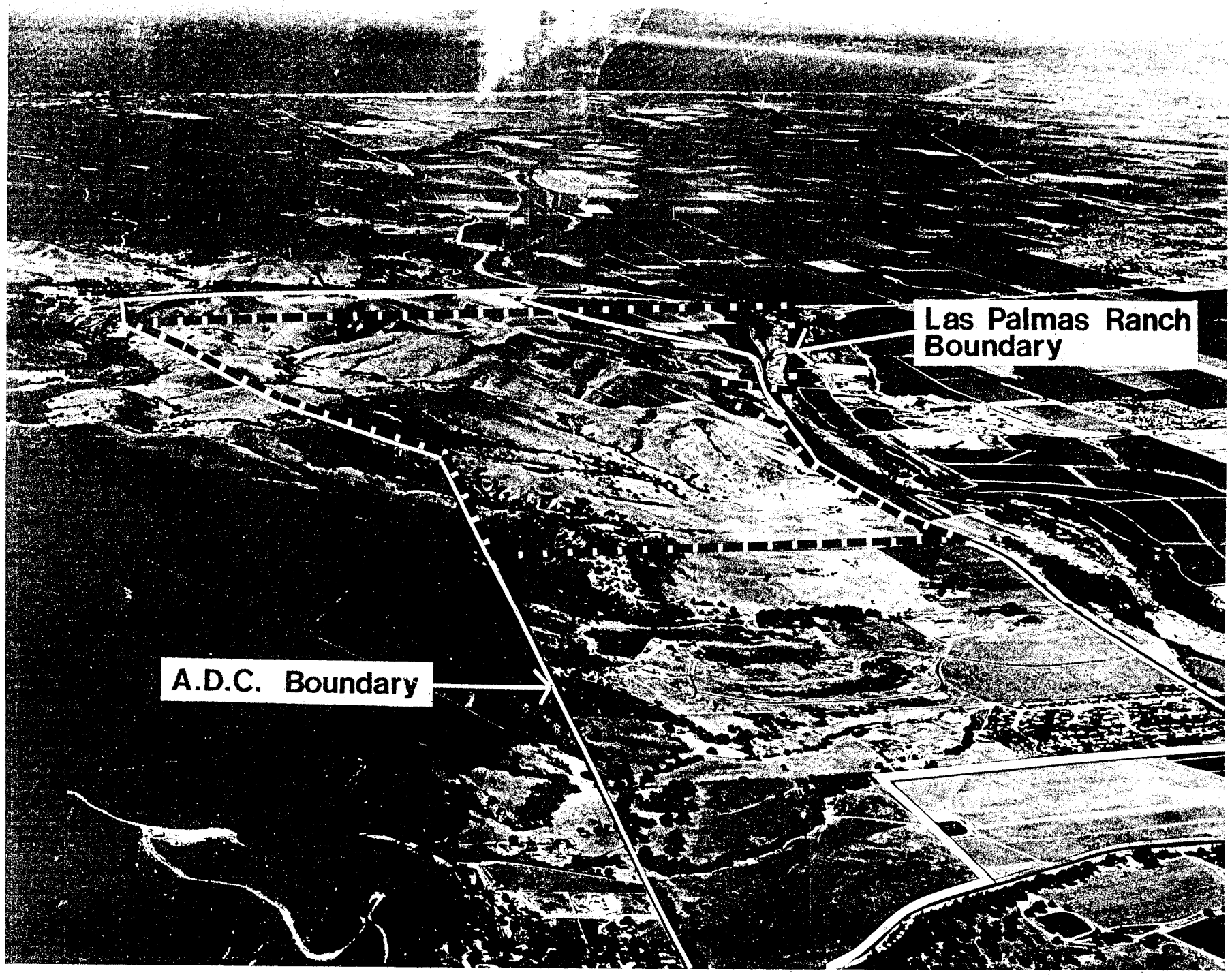


FIGURE A AERIAL VIEW SHOWING MONTEREY BAY

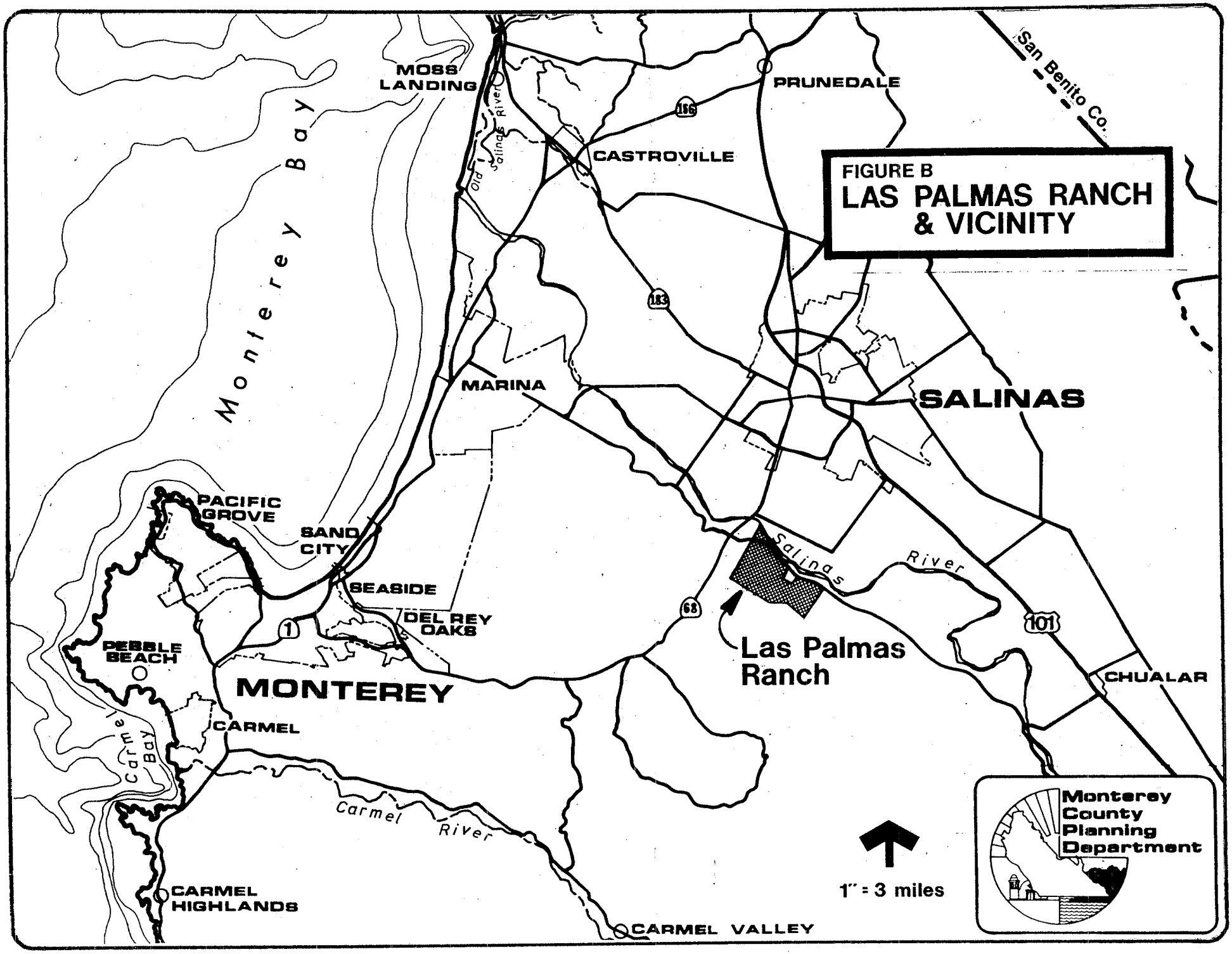


FIGURE B
LAS PALMAS RANCH
& VICINITY
MOSS LANDING
Monterey Bay
Old Salinas River
PRUNEDALE
San Benito Co.
156
CASTROVILLE
183
MARINA
SALINAS
PACIFIC GROVE
SAND CITY
SEASIDE
DEL REY OAKS
1
68
101
Salinas River
Las Palmas Ranch
PEBBLE BEACH
MONTEREY
CARMEL
CHUALAR
Carmel Bay
Carmel River
CARMEL HIGHLANDS
CARMEL VALLEY
1" = 3 miles
Monterey County Planning Department

CHAPTER I
INTRODUCTION TO THE SPECIFIC PLAN

A. FORMAT AND CONTENT OF THIS SPECIFIC PLAN

This Las Palmas Ranch Specific Plan is presented in four parts, including this introductory chapter.

Chapter II presents the Las Palmas Ranch Specific Plan.

Chapter III explains the regulatory process that must be undertaken in order for the developer and the County to implement this Specific Plan. This chapter also describes any changes required in the ADC criteria and in county ordinances in order to implement this Specific Plan.

Non-regulatory elements of plan implementation are described in Chapter IV. While local government is not always directly concerned with the action of the private sector, these elements will have an important affect on overall progress toward building Las Palmas Ranch and on the timing and phasing of both public and private decisions.

B. NATURE AND PURPOSE OF THE PLAN

The Las Palmas Ranch Specific Plan serves as the primary instrument for securing approval of the County of Monterey to carry out semi-rural development proposals of the Las Palmas Ranch Partnership under the Monterey County General Plan.

The implementation of the Las Palmas Ranch Specific Plan calls for the application of design, phasing, financing and regulatory techniques which have emerged from the creation of other successful community developments throughout the State and country. The Las Palmas Ranch Partnership and the County of Monterey must each play an important role in achieving the gradual transition of a controlled amount of land to a development status while maintaining the integrity of adjacent lands where intensified development is not called for in the General Plan. There is a variety of tools which enable local government to monitor the development process; including relevant state statutes, the Monterey County General Plan, and local ordinances. This Specific Plan provides an additional tool.

The Specific Plan has several functions:

1. The Specific Plan presents the goals of the developer.

2. The Specific Plan describes and illustrates design and construction concepts for the Las Palmas Ranch which are consistent with policies of the General Plan.

3. The Specific Plan sets forth the procedures which will be utilized by the County to implement these policies and concepts.

4. The Specific Plan describes various non-regulatory tools of implementation which are needed to achieve the goals of the developer and the County.

This Specific Plan for Las Palmas Ranch provides a unique opportunity to devise a development scheme which reflects a more rational and human scale to semi-rural living than generally has resulted from the local planning process in California. The development of Las Palmas Ranch is, to some extent, then, a bold challenge to the creativity of local government and the developer to respond to the needs of the community through a productive team effort.

The River Road ADC boundaries are Pine Canyon Road on the east, River Road on the north, Highway 68 on the west and Toro Regional Park on the south, but excludes the St. John's College and Marks properties. The ADC includes other land than the Las Palmas Property, but does not include that portion of the Las Palmas Ranch located on the north side of River Road.

C. STATUTES

The Las Palmas Specific Plan has been prepared under the authority of the following sections of the California Government Code:

> Section 65450. The planning agency may, or if so directed by the legislative body shall, prepare specific plans based on the General Plan and drafts of such regulations, programs and legislation as may in its judgment be required for the systematic execution of the general plan and the planning agencies may recommend such plans and measures to the legislative body for adoption.
>
> Section 65450.1. A specific plan need not apply to the entire area covered by the general plan. The legislative body or the planning agency may designate areas within a city or a county for which the development of a specific plan will be necessary or convenient to the implementation of the general plan. The planning agency may, or if so directed by the legislative body shall, prepare specific plans for such areas and recommend such plans to the legislative body for adoption.
>
> Section 65451. Such specific plans shall include all detailed regulations, conditions, programs and proposed legislation which shall be necessary or convenient for the systematic implementation of each element of the general plan listed in Section 65302, including, but not limited to, regulations, conditions, programs and proposed legislation in regard to the following:

(a) The location of housing, business, industry, open space, agriculture, recreation facilities, educational facilities, churches and related religious facilities, public buildings and grounds, solid and liquid waste disposal facilities, together with regulations establishing height, bulk and setback limits for such buildings and facilities, including the location of areas, such as flood plains or excessively steep or unstable terrain, where no building will be permitted in the absence of adequate precautionary measures being taken to reduce the level of risk to that comparable with adjoining and surrounding areas.

(b) The location and extent of existing or proposed streets and roads, their names or numbers, the tentative proposed widths with reference to prospective standards for their construction and maintenance, and the location and standards of construction, maintenance and use of all other transportation facilities, whether public or private.

(c) Standards for population density and building density, including lot size, permissible types of construction, and provisions for water supply, sewage disposal, storm water drainage and the disposal of solid waste.

(d) Standards for the conservation, development, and utilization of natural resources, including underground and surface waters, forests, vegetation and soils, rivers, creeks, and streams, and fish and wildlife resources. Such standards shall include, where applicable, procedures for flood control, for prevention and control of pollution of rivers, streams, creeks, and other waters, regulation of land use in stream channels and other areas which may have a significant effect on fish, wildlife and other natural resources of the area, the prevention, control and correction of soil erosion caused by subdivision roads or any other sources, and the protection of watershed areas.

(e) The implementation of all applicable provisions of the open-space element as provided in Article 10.5 (commencing with Section 65560) of this chapter.

(f) Such other measures as may be necessary or convenient to insure the execution of the general plan.

In the last few years, there have been a number of amendments to various other sections of State Codes which are relevant to the purposes of the Specific Plan. These include:

Government Code Section 65860(a). County or city zoning ordinances shall be consistent with the general plan of the county or city by June 30, 1973.

Business and Professions Code Section 11526(c). No city or county shall approve a tentative or final subdivision map unless the governing body shall find that the proposed subdivision together with the provisions for its design and improvement, is consistent with applicable general or specific plans of the city or county.

D. EXISTING CONDITIONS

The environmental setting of the Las Palmas Ranch property was initially described in the report Las Palmas Ranch Environmental Resources Inventory, completed in 1978 and accepted by the Planning Commission and the Board of Supervisors in January of 1979. That inventory is incorporated herein by reference; however, portions are repeated below in order to provide background information on the site as it exists.

The site is comprised of approximately 1578 acres, fronting on River Road approximately one-half mile to the east of the intersection of River Road and State Highway 68 and continuing east for approximately two miles.

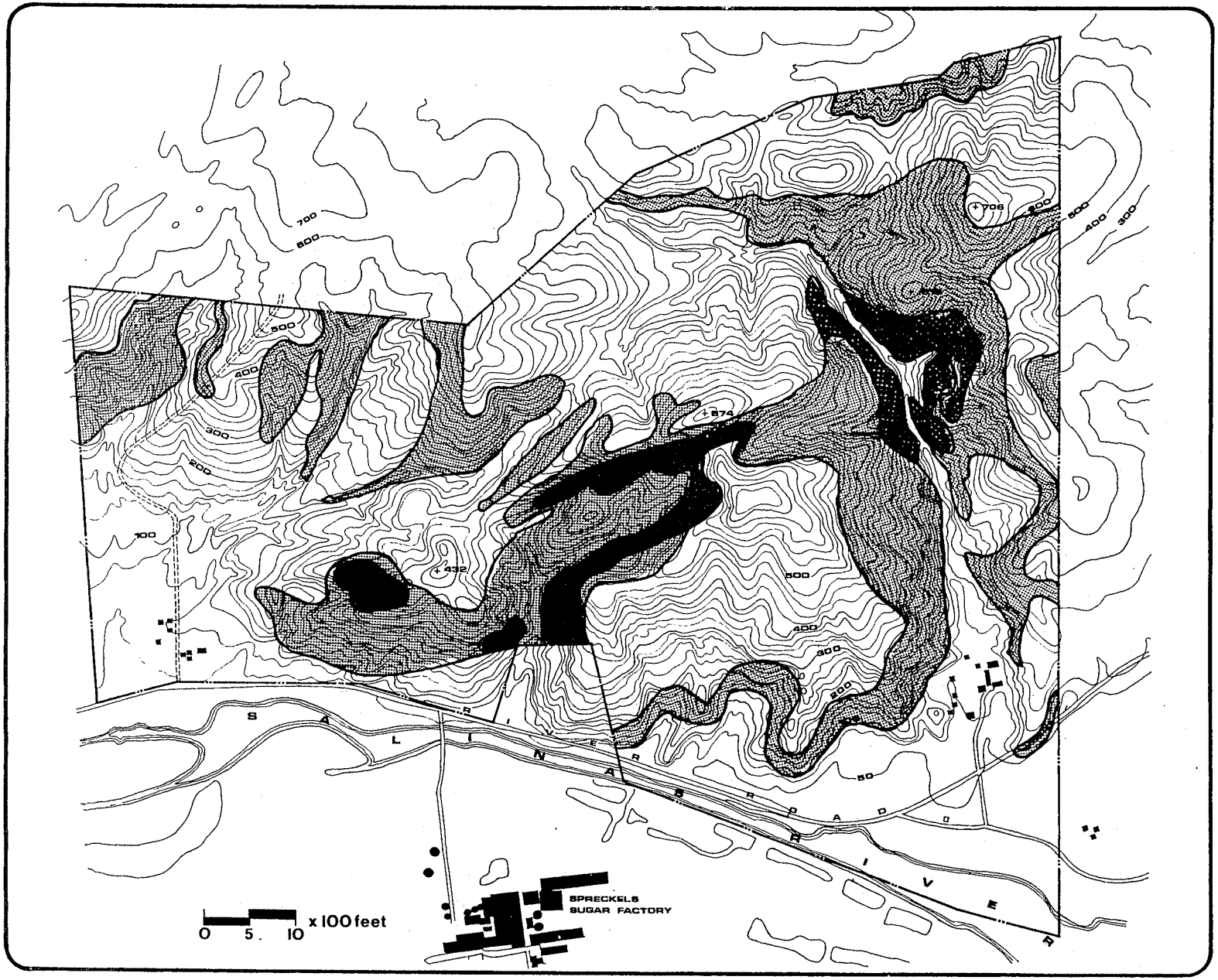
It is irregular in shape and topography. Ground level varies from approximately 40 feet mean sea level (MSL) to 700 feet MSL. General slopes are moderate although there are a few steep canyons.

SLOPE ANALYSIS OF LAS PALMAS RANCH

Slope Category	Acreage	Percentage of Total Acreage
0-10%	280	18
11-20%	488	31
21-30%	326	21
30%+	481	30

The site is essentially vacant and is used primarily for grazing. Row crops are farmed on a small portion of the Ranch north and south of River Road and bordering the Salinas River. This land will remain substantially in agricultural use.

The land surrounding the Las Palmas site is primarily in residential use. Beyond the western border lies vacant land, the former Ferrini Ranch, now approved for residential development in accordance with the Toro Vista Specific Plan, adopted December 16, 1980. Further west, across Highway 68, are residential developments: Serra Village, Toro Creek Estates, Toro Sunshine, Toro Park Estates and Creekside. These developments range in density from four to seven dwelling units per acre. On the eastern boundary is Vista Del Rio, a residential development of eighty one-acre lots. Other properties to the east include the Indian Springs Ranch Subdivision, a clustered development at an overall density of one unit per acre, and the Pedrazzi Subdivision, a standard subdivision of ninety-five homes on lots average one-third acre in size. Directly across the Salinas River, to the north, is the Spreckels sugar plant complex and the town of Spreckels. On the south border is Toro Regional Park.



Las Palmas Ranch

FIGURE C

SCHEMATIC SLOPE MAP

- 0-30% SLOPE
- 30-50% SLOPE
- 50%+ SLOPE

Monterey County Planning Department

Although the seismic safety element indicates the possibility of an inferred fault, referred to as the King City (Reliz-Rinconada) fault, in the vicinity of Las Palmas Ranch, extensive exploration by geologists Cooper & Clark (Geotechnical Evaluation November 19, 1980 and Fault Evaluation May 20, 1981) have verified that there is no evidence to support existence of that fault on Las Palmas Ranch property.

A series of natural drainage courses traverse the property in a northeasterly direction. These serve relatively small drainage areas which originate from within the property boundaries. Most of the soils in these areas have moderate to high permeability, and most of the storm run-off percolates into the groundwater basin before reaching River Road. Such drainage conditions do not appear to present any danger to the areas proposed for development. The exception is the portion of the property lying northeast of River Road, not proposed for housing, which lies within the one hundred year flood line as suggested by the U. S. Corps of Engineers.

The area is blessed with a Mediterranean type climate: mild year-round temperatures, temperate winters and an average rainfall ranging from thirteen inches at River Road to fifteen inches at the upper elevations of the site.

Currently, three wells are supplying water to the property; one produces approximately 1,650 gallons per minute of water of excellent quality. According to the State Water Resources Control Board Reports the surface and groundwater quality of the Salinas River Sub-Basin is suitable for all water uses.

Air quality reports by the Air Pollution Control District indicate pollutants at a level well within Federal standards. (See Inventory, Appendix C.) Air circulation and air quality at the site are good. Moderate, prevailing northwesterly winds blow almost daily. Emissions from motor vehicles on River Road is the primary source of pollutants. These are presently minimal, and the prevailing winds disperse these pollutants down the valley, away from Salinas.

The major botanical resource of the Las Palmas Ranch site is the Coast Live Oak. These trees are widely dispersed throughout the property. Some of the specimens are two to three hundred years old. Generally, cattle grazing has suppressed the growth of seedlings and young oaks. There are two kinds of brush, chamise and sagebrush which flourish in two areas. Native grasses have long since been replaced by European annual grasses. Riparian vegetation is found along the Salinas River, principally willows and cottonwood.

The mammal and bird population includes species adapted to open grassland and pasture. Generally, these are transient. Permanent residents include some smaller mammals such as rodents and reptiles. The habitat appears ideal for seed eating birds such as doves and quail; and woodpeckers because of the many dead or senescent oaks. No rare or endangered species of mammal, bird, reptile or amphibians is evident on the property.

The Las Palmas Ranch property generates no significant amount of noise. Traffic on River Road and on nearby Highway 68 is the primary source of noise, but

field studies of Community Noise Equivalent Levels found noise levels to be in the "permissible" range. The site lies several miles off the commercial flight patterns of both the Monterey and Salinas airports, so noise tends to be intermittent and of a very low volume.

An archeological survey of the site revealed no pre-historic archeological resources. Remains of an adobe structure were located, but these were deemed beyond restoration. A ten thousand square foot Victorian manor is the site's only historically significant structure. The Las Palmas Ranch Partnership has recently restored the exterior of this imposing building, and plans to restore its interior. The developers have also been responsible for having the manor placed on the roster of National Historical Buildings (see Appendix A of the Inventory).

There are no commercial or shopping facilities within the boundaries of the proposed River Road ADC. The closest complete shopping complex is located at the intersection of South Main Street and Blanco Road in Salinas; approximately two and one-half miles to the north.

Recreational opportunities in the Toro area are numerous and varied. Toro Regional Park and Laguna Seca Recreational Area are available for picnicking, biking, auto racing and horse-back riding. Corral de Tierra Country Club, Laguna Seca Golf Club and Chamisal Tennis Club are also close at hand.

FIGURE D: LAS PALMAS RANCH SPECIFIC PLAN LAND USE TABLE

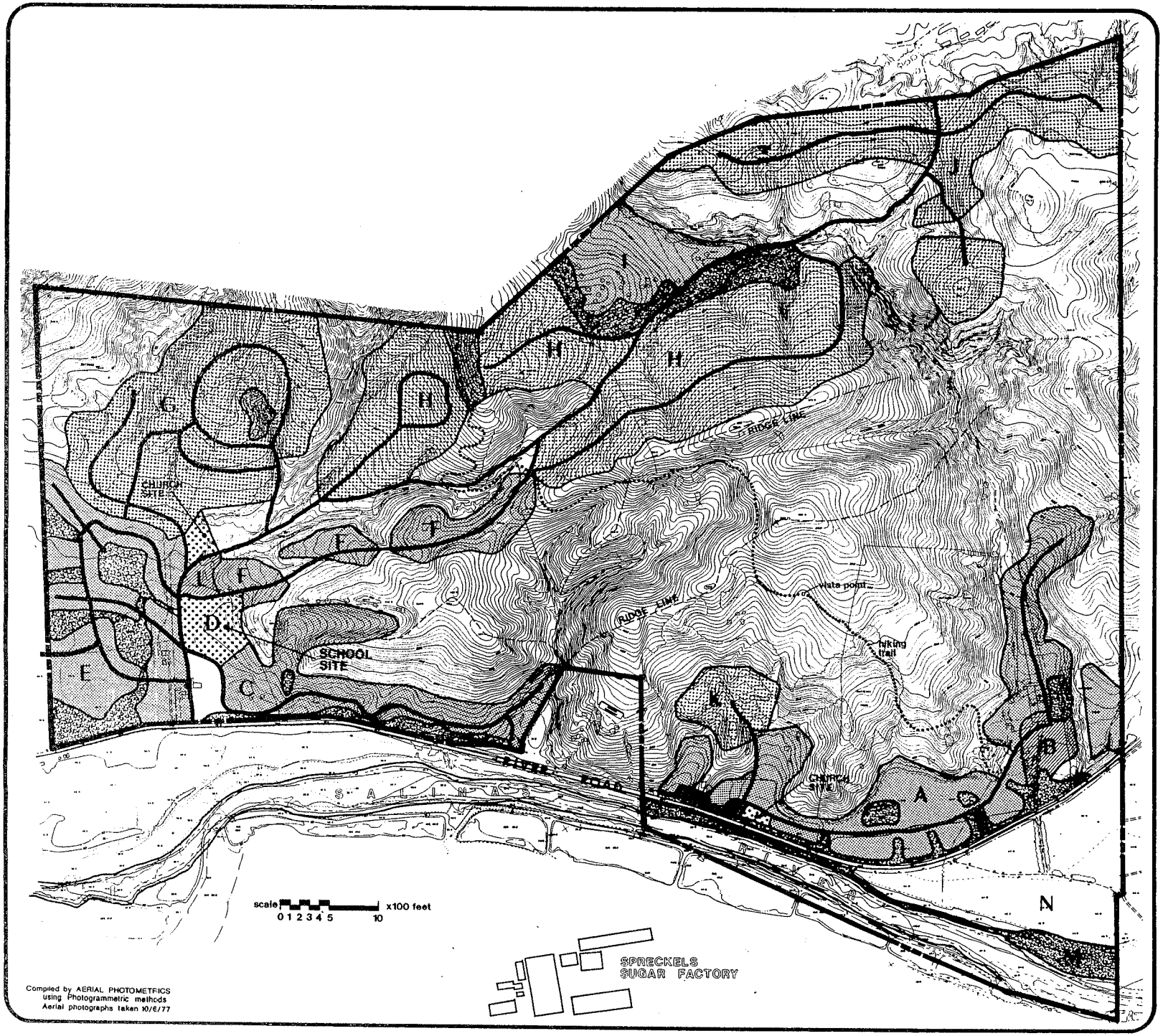
ADC Policy Plan Areas	Residential Units		Total Units	Other Land Uses	Other Acreage	Total Acres	Density Units/AC
	Multi	Single					
A	312	0	312			104	3.00
B	-	-	-	COMMERCIAL/RECREATIONAL	6	6	N/A
C	131	0	131			62	2.11
D	-	-	-	SCHOOL/CHURCH SITES	15	15	N/A
E	0	168	168			76	2.21
F	104	0	104			32	3.25
G	0	80	80			95	.84
H	0	142	142			152	.93
I	0	46	46			28	1.64
J	0	43	43			90	.48
K	0	5	5			11	.45
L	-	-	-	COMMERCIAL	6	6	N/A
				OPEN SPACE:			
M				RIPARIAN CORRIDOR	13		
N				AGRICULTURAL LAND	56		
O				NEIGHBORHOOD/INFORMAL OPEN SPACES	65		
				CENTRAL OPEN SPACE & FRONTAL SLOPES	767		
				TOTAL OPEN SPACE		901	N/A
TOTAL	547	484	1031			1579	.65 AV.

NOTE: ACREAGES BOUNDARIES OF THE PLAN AREA AND NUMBER OF UNITS WITHIN EACH PLAN AREA ARE APPROXIMATE. SPECIFIC BOUNDARIES, AND NUMBER AND MIX OF UNITS WILL BE DETERMINED AT THE TIME OF FINAL ENGINEERING, PROVIDED THAT THE TOTAL NUMBER OF RESIDENTIAL UNITS SHALL NOT EXCEED 1,031. DEVELOPMENT MAY NOT OCCUR IN THE APLHABETICAL ORDER IN WHICH THE PLAN AREAS ARE LETTERED ON THE PLAN.

Las Palmas Ranch

FIGURE E

SPECIFIC PLAN



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using Photogrammetric methods
Aerial photographs taken 10/6/77

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CHAPTER II

LAS PALMAS RANCH SPECIFIC PLAN

A. INTRODUCTION

1. The Value of Goals

The Las Palmas Ranch Specific Plan did not originate with county government. It began as the idea of a group of property owners who saw this large ranch being used to provide housing for the people of their community. Before their idea can achieve reality, however, it must be blended with the County's objective for development of the River Road area. The end product will be the Las Palmas Ranch Specific Plan, which will represent a joint expression of the aims and aspirations of the property owner, as well as the ends and objectives of the people of the County as declared by their local government.

This Chapter II is a statement of the aims and aspirations of the Specific Plan ("goals"); and the means by which the plan can achieve the goals ("policies").

Goals are necessry to give meaning to the short-and-long-term policies and actions called for by the Las Palmas Ranch Specific Plan. The goals set forth in this chapter are an essential expression of the commitment of the Las Palmas Ranch Partnership in connection with the development and management of their project. These goals ensure the protection of the major elements of the ranch's natural environment and rural setting, while at the same time providing a desirable residential community.

2. The Function of Policies

Policies are specific courses of action by which adopted goals are to be implemented.

The policies of this Specific Plan are intended to function as measures for the mitigation of potential environmental impacts of the project. They are also intended to serve as directions to the developer, the County staff and the public decision makers in the review and processing of the various phases of the project development. Where appropriate, policies of this Specific Plan will become conditions of approval of tentative maps and use permits.

Although the policies in this Chapter II are grouped under specific subject headings, a single policy may well serve to implement a number of goals. For example, policies stated under the agricultural land use, the design sensitivity and the erosion and drainage control sections also help to carry out the conservation and open space goal. The policies of this Specific Plan, therefore, should be considered as an integrated program of action for achieving the goals of the plan.

B. PHASING OF DEVELOPMENT

Residential development may proceed at a basic rate of up to 130 units per year. Up to 65 units may be built in addition to this basic yearly rate. Any units allowed in a year, but not built during that year may be built in following years. However, the accumulation of units shall not begin until the first residential unit is initiated.

It is important, however, to assure that adequate infrastructure such as water, sewers and roadway capacity is available or is made available to accommodate each increment of development as it is built. By the same token, the County needs to ensure that a proportionate amount of the total open space designated in this specific plan is provided at the time each phase of development commences. And although a given increment of the development may provide more or less than 15% of its housing units as low or moderate income units, it is essential that a schedule be adopted to assure that the committed number of affordable units will be provided in a reasonable and orderly progression and that the inclusionary units are not left to the end of the development or relegated to one or two isolated areas of the project.

C. HOUSING AND RESIDENTIAL LAND USE

GOAL: The primary goal of Las Palmas Ranch Specific Plan is to provide a broad mix of housing opportunities to all economic segments of the community without expanding existing urban boundaries into major farming areas.

BACKGROUND

According to the Monterey County Housing Plan, adopted by the Board of Supervisors on September 22, 1981, there is an immediate need within the County's unincorporated areas of 4,800 housing units by 1985. In order to meet this demand, the AMBAG Housing Study indicates a need for 1,000 units per year in the greater Salinas area.

Monterey County has adopted a Growth Management Policy which states in part that growth shall occur in or adjacent to urban areas or in areas specified for future growth which are able to provide urban services. The effect of this policy on the supply of housing is unknown because the implementation mechanism is yet to be adopted.

The Monterey County Housing Plan also points out the special housing needs of certain categories of households (large families, handicapped persons, the elderly, female-headed households and migrant farmworkers).

This Specific Plan responds to as many of these needs as is feasible.

The Las Palmas Ranch Partnership has entered into an agreement with the Monterey County Housing Authority to provide land in the City of Salinas at no

present cost to the Authority for the construction of fifty units of low-income family housing. The Partnership applied to the County to be allowed credit for these fifty units toward the Partnership's commitment to provide 15% of the units of Las Palmas Ranch as low or moderate income housing. On January 26, 1982 the Board of Supervisors approved these units as applying toward the inclusionary requirement.

OBJECTIVES

1. To help fulfill the continuing housing demands of the county as disclosed by the Monterey County Housing Plan and the AMBAG Housing Study.

2. To reduce the necessity for Salinas and other nearby communities to expand into surrounding major agricultural lands in order to meet housing demands.

3. To provide a range of housing affordable to all economic segments of the community.

4. To provide a full range of housing types within an environmentally sensitive plan.

5. To maintain the quality of the semi-rural residential environment.

6. To provide housing to meet the needs of the segment of Monterey County population that desires semi-rural living but with a full range of community facilities.

7. To consider the housing goals, plans and objectives of communities making up the County's housing market.

8. To explore and offer feasible, innovative methods of housing financing that will permit home ownership by a broad range of families.

POLICIES

1. The development of Las Palmas Ranch shall comply with the County's Inclusionary Housing Ordinance. Credit shall be given for the fifty units of low income family housing constructed by the Monterey County Housing Authority in the City of Salinas on the land provided by the Las Palmas Ranch Partnership.

2. All available sources of government and private financing and funding should be utilized for the construction of housing, including where appropriate the following:

U. S. Department of Housing and Urban Development, Federal Housing Administration;

U. S. Department of Agriculture, Farmers Home Administration, Home Ownership Loans Program, Rural Rental Housing Programs, Farm Labor Housing Loans Program, Water and Sewer Loans and Grants Program;

Economic Development Administration;

California Department of Housing and Community Development;

California-Housing Finance Agency;

Housing Assistance Council, Inc., Revolving Loan Fund;

Rural America, Loan Fund Policy.

3. To the extent feasible, low and moderate income housing should be disbursed throughout the project in order to minimize physical isolation and to promote social integration.

4. The appearance of the low and moderate income housing shall be compatible with other housing within the subdivision.

5. The Specific Plan allows a maximum 1,031 residential units in accordance with Figure D and Figure E.

6. Housing should be produced in an orderly phased program over a period of several years based upon market demands and availability of financing.

7. In order to preserve the semi-rural character of the area and to mitigate adverse impacts on significant viewshed areas, higher density housing should be clustered behind natural land forms, generally at lower elevations and not on steeper slopes or ridge lines.

8. An Inclusionary Housing Plan for the entire project shall be prepared by the developer reflecting compliance with the County's Inclusionary Housing Ordinance. This plan shall be submitted to and approved by the County prior to consideration of the first increment of residential development.

9. Recreational facilities and open space shall be provided on an incremental basis in accordance with project built-out.

10. Optional or modified public improvement, development, and construction standards where available should be utilized where appropriate to produce quality housing at reduced unit cost.

11. A Development Incentive Zone of ten acres shall be provided within the areas designated in this specific plan for medium density residential development. The density for this DIZ shall not exceed ten units per acre. This density may be and is encouraged to be dispersed throughout the medium density areas rather than being concentrated in a single ten-acre area.

D. COMMERCIAL LAND USE

GOAL: To provide twelve acres of centrally located commercial and service facilities appropriate to the convenience needs of the visitors and guests of Las Palmas Ranch as well as the residents of the entire River Road Area of Development Concentration.

BACKGROUND

At the present time, the only commercial outlet in the River Road ADC is a small, older convenience store across River Road from the entrance to the Pedrazzi subdivision. Although the Toro Area Master Plan designates a small area of commercial development at the corner of River Road and Pine Canyon Road, that land is presently in productive agricultural use and the likelihood is remote that the property will be developed for other than agricultural purposes in the foreseeable future, if ever. Consequently, residents of the River Road ADC must travel outside the vicinity for virtually all of their shopping needs.

The nearest complete retail and service facilities are in the City of Salinas, approximately three and one-half miles to the north. Limited convenience commercial outlets are located in Toro Park Estates, approximately two and one-half miles to the west of Las Palmas Ranch on Highway 68. A small amount of highway commercial development is called for in the Toro Vista Specific Plan, to be located on Reservation Road just west of Highway 68.

Although the residents in the Las Palmas Ranch development and in the River Road ADC should continue to look to the major commercial centers of Salinas and Monterey for the majority of their comparison goods shopping needs, the provision of convenience shopping outlets within the boundaries of the ADC would produce a number of public and private advantages. Such convenience outlets might include a "quick-stop" market with gasoline pumps, deli-liquor, barber/beauty shop, cleaners, and similar light retail shops. In addition to making shopping more convenient to the residents of the area, it would substantially reduce travel-based energy consumption, congestion on Highway 68 and resultant air pollution.

The Corey House, upon completion of its restoration, will function as a center for social and recreational activities of the residents of Las Palmas Ranch, and to a degree as a visitor attraction. it is appropriate to plan limited commercial facilities in and about the Corey House to meet the demand for dining and related activities. Furthermore, because this Specific Plan contemplates a concentration of recreational facilities around the Corey House for the utilization of the residents of the development and their guests, provision should be made for the availability of food, drink, recreational and athletic supplies and other similar goods in this vicinity. Commercial facilities around the Corey House might include a restaurant, sports shop, gift store, deli and similar uses.

In order to best meet the needs of all of the residents of the River Road ADC, the main body of commercial facilities should be centrally located. A

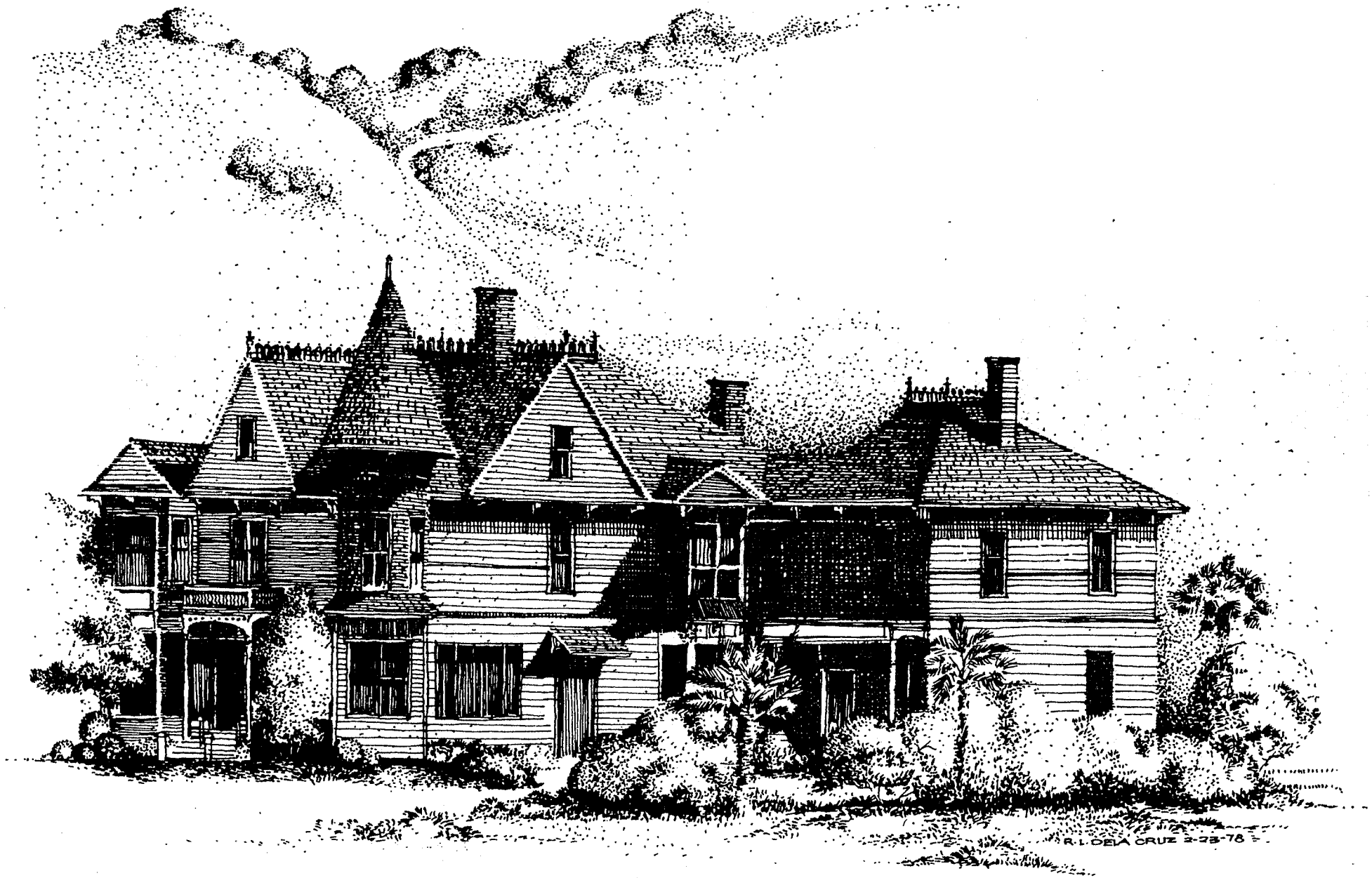


FIGURE F COREY HOUSE RESTORATION

location near the eastern end of the Las Palmas Ranch property would be centrally located to all existing and proposed development within the ADC.

OBJECTIVES

1. To develop a centrally located commercial and service area at the easterly end of Las Palmas Ranch to service the convenience shopping needs of the residents of Las Palmas Ranch and the River Road ADC.

2. To develop a small commercial and service facility in and about the Corey House to meet the convenience needs of visitors to the Corey House and those utilizing the recreational facilities in and about the Corey House.

POLICIES

1. Retail commercial and service facilities appropriate to meet the convenience shopping needs of the residents of Las Palmas Ranch and the River Road ADC should be provided in the area designated as "L" in Figure D.

2. Retail commercial and service facilities appropriate to the convenience needs of the visitors to the Corey House and those utilizing the recreational facilities in and about the Corey House should be developed in the area designated as "B" in Figure D.

3. All commercial development shall be of a size, design and intensity compatible with the semi-rural character of the River Road ADC.

4. The design, lighting and materials of all commercial signing for the development shall be carefully regulated to assure compatibility with the semi-rural character of the area.

5. All areas proposed for commercial development should be placed in Planned Commercial ("PC") or similar zoning providing for continued regulation by the County of uses, design, parking, landscaping and signing.

E. CIRCULATION

GOAL: To provide a safe, efficient and aesthetically pleasing system for the circulation of automobiles, pedestrians and other modes of transportation within the project; and to consider the reasonable needs for travel to and from the project.

BACKGROUND

Circulation concerns for the Las Palmas Ranch fall into two principal categories: (1) The internal provisions for circulation within the project itself, and (2) the external matter of travel to and from the project. The former is primarily within the purview of the developer's responsibilities; the latter, although a matter

of concern to this project, is primarily a problem for regional or even state solution.

The internal circulation system for Las Palmas Ranch will consist of two major collector roads. The collector serving the western portion of the project will enter River Road approximately at the Corey House. The collector serving the eastern portion of the project will enter approximately two miles further down River Road (see Figure D).

Neighborhood subcollector streets and lanes are designed to provide safe and efficient access to all portions of the project while maintaining a sense of separation and independence for the various residential neighborhoods.

This Specific Plan anticipates extensive use of optional design and improvements standards as provided by the Monterey County Subdivision Ordinance in order to maintain a rural character and enhance the liveability, convenience and appearance of the development. Although it is proposed to observe county standards as to materials, minimum lane width and longitudinal grades, optional standards are proposed as to maximum cul-de-sac length, width of right of way, and use of curb and sidewalk. These reduced standards will be offset in some cases by the generous provision in the plan for off-street parking and by the use of turnouts and turnarounds for emergency equipment.

All development costs of the on-site circulation network will be funded by the developer (see Chapter IV). It is proposed that the major collector roads and subcollector streets in the higher density areas will be dedicated public streets. Private roads may be utilized for some of the larger lot single family development, and for the interior lanes within PUD clusters.

Provision will be made within the project to accommodate alternative means of transportation to the automobile. A system of pathways suitable for pedestrian and bicycle use will connect the residential areas with commercial, educational and recreational centers. Although public transit does not presently serve River Road, it is expected that such service will be provided as development of this project and Toro Vista proceeds. Safe, centrally located bus loading areas for both public transit and school buses are proposed for both the western and the eastern portions of the project.

OBJECTIVES

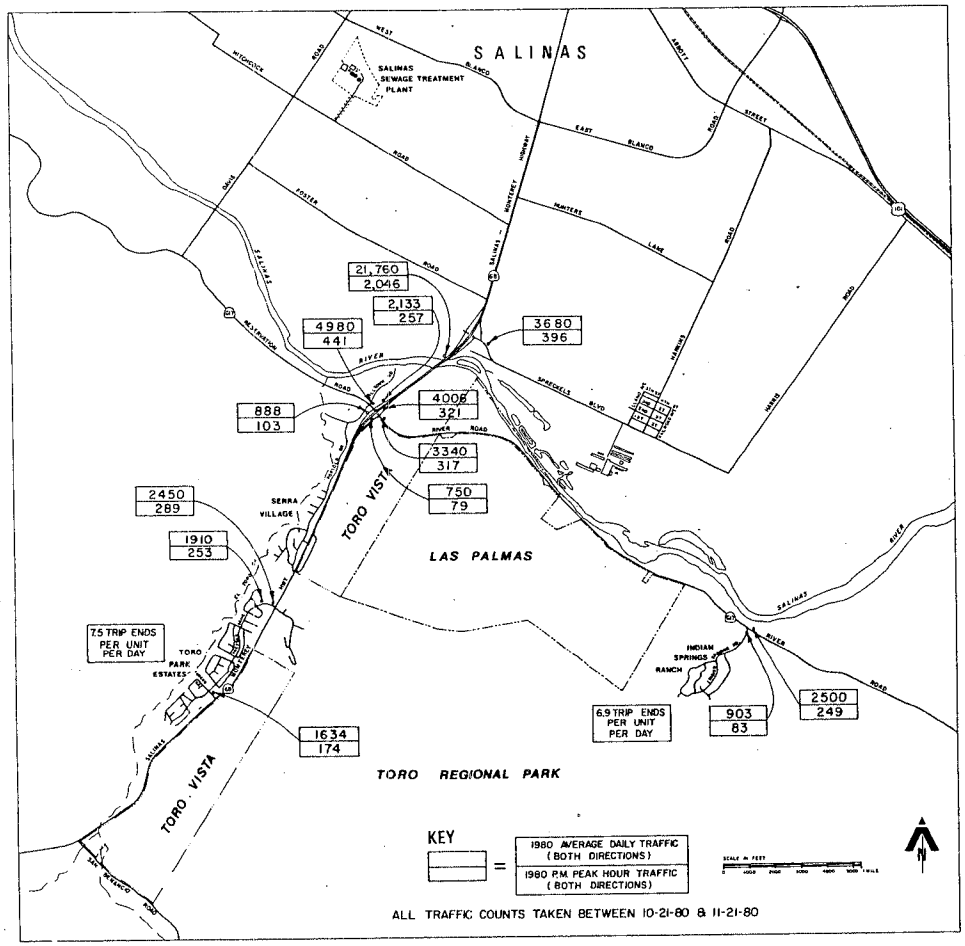
1. Provide an internal circulation system of collector roads and neighborhood collector streets and lanes providing safe, efficient and aesthetically pleasing access to the areas of development for automobiles, pedestrians and alternative modes of transportation.

2. Provide or participate in the provision of off-site improvements reasonably necessary to assure safe travel to and from the project.

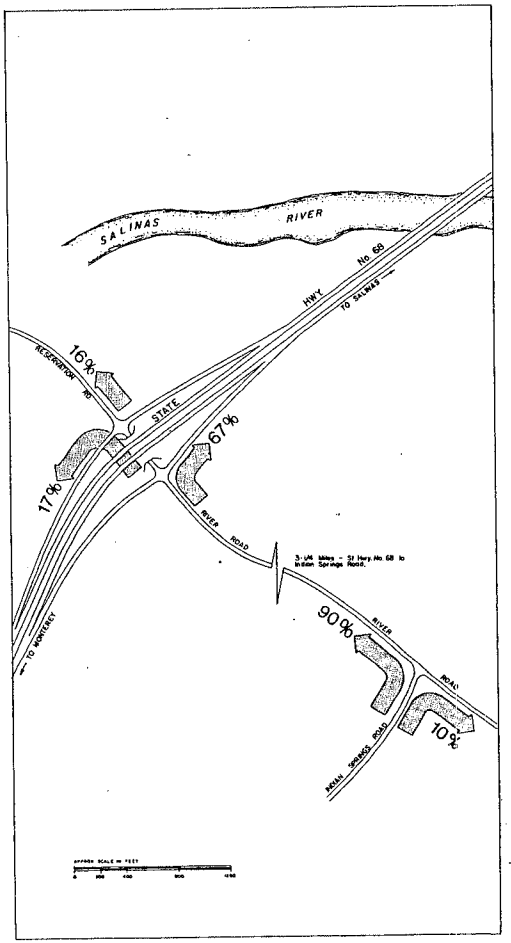
Las Palmas Ranch

FIGURE G

1980 TRAFFIC VOLUMES AND DIRECTIONAL SPLIT DATA



October 1980 Traffic Counts



Directional Split Data For Indian Springs Morning Peak Period Traffic

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POLICIES

1. Provide a system of pathways suitable for pedestrian and bicycle use to connect residential areas with commercial, educational and recreational areas of the project.

2. Safe, attractive and centrally located loading areas for school buses and public transit should be provided at appropriate locations in both the east and west areas of the project as determined by consultation with transit agencies.

3. Adequate off-street parking should be provided as a means of reducing road congestion, particularly in areas where reduced road right-of-way is proposed.

4. Turnouts and turnaround facilities may be required to accommodate emergency vehicles in areas of reduced road right-of-way or where longer cul-de-sacs are proposed.

5. Interior roads shall have longitudinal grades not exceeding 15%.

6. With the following exceptions, on-site roads shall be privately owned and maintained.

A. Extensions of existing public roads. Such connections and extensions shall be publicly owned and maintained.

B. Subdivision roads maintained by user fees or other locally-generated revenues, and not by the county road fund. Such roads may be publicly owned.

7. The internal circulation system should be designed to accommodate a level of service "C" at full buildout. A trip generation factor of 8.0 trips per day per unit shall be used for this project.

8. The use of optional design and improvement standards is encouraged for the internal road system to reduce visual impacts, maintain a rural character and enhance the liveability, convenience and appearance of the project. Subject to specific review in each case, such optional standards shall permit extended cul-de-sac length and elimination or reduction of curbs and sidewalks, and may permit reduced right-of-way.

9. Roads which are perpendicular to viewing areas of which involve excessive cut and fill shall be discouraged.

10. Horizontal and vertical street alignments should relate to the natural contour of the site insofar as is practical, while retaining safe sight distance for expected driving speeds but not less than 25 mph.

11. Street name signs and regulatory devices constructed of wood or other natural materials and of the size and height compatible with the surroundings should be utilized.

12. The developer shall dedicate fee title along the project frontage on River Road so that the sum of the width of existing right-of-way and new dedication (on either side) equals 110 feet. Widening in excess of 110 feet may be required for slopes. These slopes may be provided for as slope easements and may be landscaped by the developer and included as part of the meandering 50 foot setback/landscaped area described in Conservation and Open Space Policy #9.

13. Access to the development will be by public road intersections including left turn channelizations constructed by the developer on River Road at the entrances to the subdivision. Design and construction shall be compatible with the widening of River Road as contemplated by Policy #12 above.

14. Internal road connections should be provided where feasible between the areas of the subdivision in order to minimize the need for River Road to provide a route for intra-subdivision traffic.

15. Road connections should be provided where feasible between the subdivision and adjacent subdivisions in order to minimize the need for subdivision traffic to utilize River Road.

16. The developer shall pay a development fee to the County for improvements to Highway 68. This development fee shall be $620.75 per residential unit (a total of $640,000.00, being 10.66% of the estimated cost of the two lane first phase of the Corral de Tierra bypass), and shall be payable as to each residential unit at the time the building permit for the residence is issued.

17. The maximum contribution to improvements to River Road shall be $1,400,000 (prior to indexing). This contribution shall be for a project to be designated by the County Public Works Department. A payment of 1/1031 of this amount shall be paid to the County at the time each residential building permit is issued. When 600 such permits have been issued the designated road improvement project shall be built. If the accumulated contributions are insufficient to fund the project, the developer shall then contribute the balance of the cost up to the above maximum obligation.

18. The development contributions provided in Policies 16 and 17 are based on 1983 dollars, and will be adjusted annually in accordance with the West Coast Engineering News Record General Engineering Cost Index. These development contributions, together with the dedications and improvements required by Policies 12 and 13 shall constitute the project's total required participation in the construction or financing of off-site roads and circulation facilities.

F. CONSERVATION AND OPEN SPACE

GOAL: To conserve and protect in open space those aspect of Las

Palmas Ranch that constitute the major visual and environmental resources of the site; and to provide for the managed utilization of open space for active and passive recreational purposes.

BACKGROUND

Open space is an essential component of any well-designed residential project. It provides areas for active and passive recreation immediately adjacent to dwelling units. It increases project amenity by providing landscaped areas and important scenic vistas. Open space can be an important design element, breaking up monotonous patterns of housing and improving the visual attractiveness of the development. Open space increases design flexibility and permits the preservation of natural features for even greater amenity.

By statutory definition open space includes banks of rivers, riparian vegetation, watershed lands, outdoor recreation areas, areas of outstanding scenic, historical and cultural value, and areas of economic importance used for production of food and fibre.

A number of these open space components are found within Las Palmas Ranch and are therefor incorporated in this Specific Plan.

The first component of the Las Palmas Ranch open space includes the banks of the Salinas River and the narrow band of riparian vegetation adjacent thereto. These areas constituting the northerly boundary of Las Palmas ranch, will be left in their natural state and retained in the ownership of the developer.

The second open space component of Las Palmas Ranch is the approximately 50 acres of level land lying between the riparian corridor and River Road. This area will be preserved in agricultural use.

This agricultural land shall be placed in permanent agricultural zoning. It will remain in the ownership of the developer or a successor entity, and will be leased for farming purposes.

The Corey House itself and the grounds around it constitute the third component of the Las Palmas Ranch open space. The developer has already restored the exterior of this magnificent structure, and has had the building placed on the roster of National Historical Buildings. The Corey House is suitable for a variety of active uses; as a social center for the project and headquarters for the recreational complex around it; as a center for retail commercial and service facilities to meet the needs for those utilizing the recreational facilities and visitors to the historic residence. The Corey House itself will remain in the ownership of the developer, with space being leased to the various users including the owner's association. The recreational facilities surrounding the Corey House will be owned and managed by the owners' association for the use of the project residents and their guests.

By far the largest of the open space components, consisting of approximately 767 acres, is the central open area embracing the central ridge lines and north-facing frontal slopes visible from the Highway 68 Scenic Corridor (see Figure H). This area constitutes the major watershed area of the ranch as well as the prime visual resource visible from within the ranch and from the Highway 68 Scenic Corridor. This area should provide an excellent source of active and passive enjoyment for the residents of Las Palmas Ranch (see discussion in Section H of this Chapter II). This plan calls for this area to be left basically in its natural state. Improvements will consist only of trails, vista points and drainage and erosion control devices. This central open area will be owned and managed by the master owners' association, and should be placed in open space zoning and subjected to appropriate scenic easements.

The final component of open space in the Las Palmas Ranch project includes the smaller parks and recreational areas which are interspersed within and among the clusters of higher density development. Some of these areas are shown in Figure D. Others will be designed as each increment of cluster development is proposed. These areas will be owned and managed by the neighborhood or village owners' association. The utilization of these neighborhood open spaces as a means of separating housing clusters and providing visual screening is illustrated in Figure K.

OBJECTIVES

1. To preserve the site's major frontal slopes and ridgelines in open space in order to maintain the rural setting as a visual backdrop to the clustered housing.

2. To provide for continued agricultural use of lands north of River Road.

3. To maintain a feeling of open space along the immediate River Road corridor.

4. To conserve the Salinas River bank and the adjoining riparian vegetation in open space.

5. To preserve and enhance the historical significance of the Corey House.

6. To utilize open space as an important design element for avoiding monotonous patterns of development.

7. To provide for active and passive enjoyment of the open space within the project.

8. To assure open space integrity through ownership and management entities.

POLICIES

1. The following constitute the open space elements of Las Palmas Ranch to be protected:

A. The Salinas River bank and the riparian vegetation adjacent thereto;

B. The agricultural land north of River Road;

C. The central ridge lines and north-facing frontal slopes visible from the Highway 68 Scenic Corridor as delineated on Figure H.

D. The Corey House.

2. Prohibit building on ridgelines visible from designated scenic corridors, as delineated on Figures H and K.

3. Higher density housing units shall be clustered behind natural landforms or on lower elevations.

4. Open space areas shall be placed in scenic easements and open space zoning or otherwise adequately protected from development that could destroy the natural amenities of the site.

5. The open space areas other than the riparian corridor, the agricultural land and the Corey House shall be conveyed to an owners' management association or other appropriate entity legally empowered and obligated to manage these areas and to collect fees or assessments therefor.

6. A proportionate amount of open space should be provided with each increment of housing. Trails provided within the open space management plan shall be dedicated at the time the area is unencumbered and the open space is dedicated.

7. Roads which are perpendicular to viewing areas or which involve excessive cut and fill shall be discouraged.

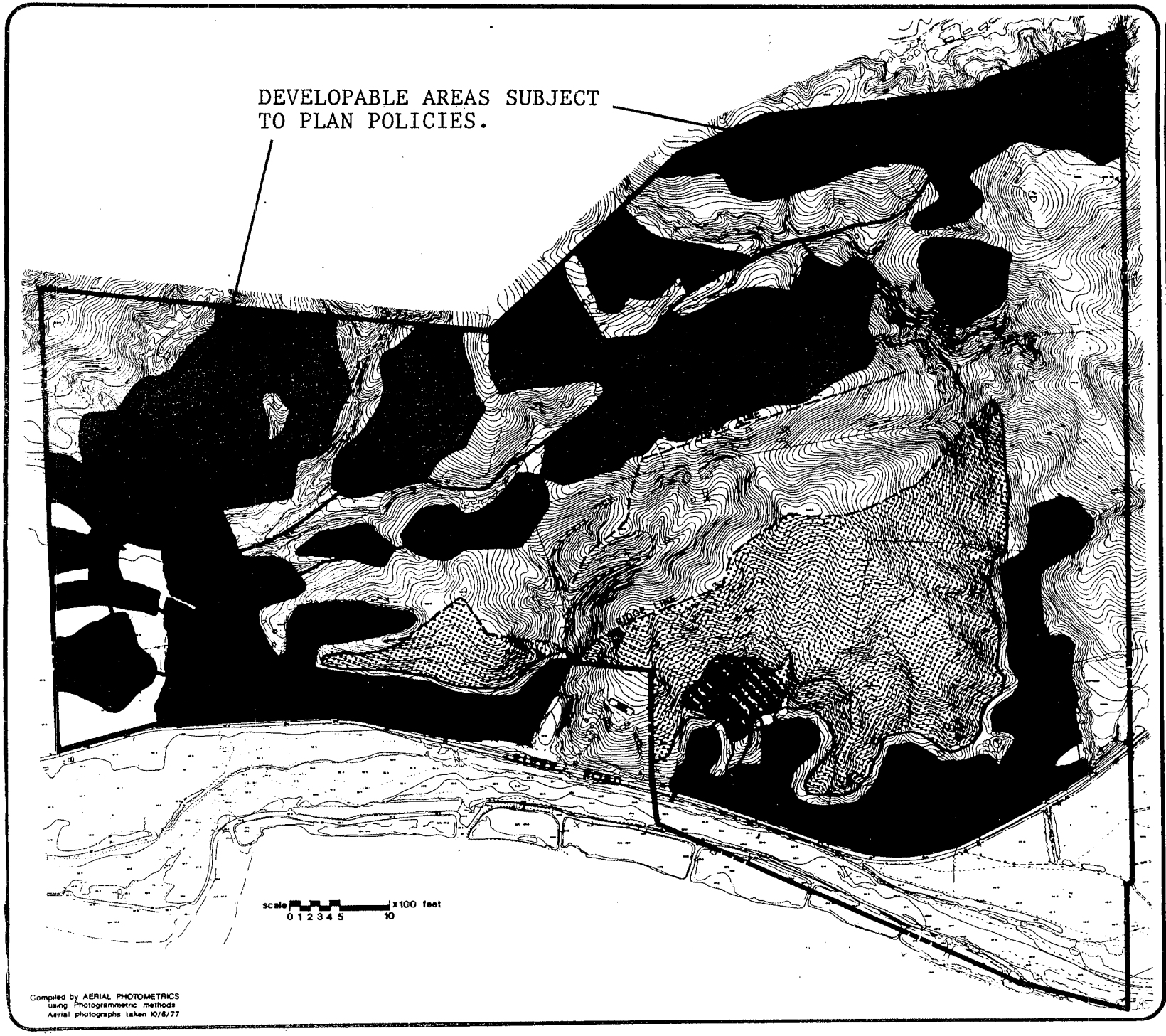
8. Horizontal and vertical street alignments should relate to the natural contours of the site insofar as is practical.

9. An irregular or meandering landscaped setback, with a minimum depth of fifty feet, shall be established along the frontage of River Road.

10. Utilize mounding, informal massing, or irregularly spaced trees, planting and other overall landscaping treatment to screen development.

11. Visually obtrusive building materials and finishes shall be avoided.

12. Erosion, siltation and drainage controls shall be implemented in order to enchance watershed management, to protect on-site and riparian vegetation, to



Compiled by AERIAL PHOTOMETRICS
using Photogrammetric methods
Aerial photographs taken 10/6/77

Las Palmas Ranch

FIGURE H

FRONTAL SLOPES

FRONTAL SLOPES VISIBLE FROM SCENIC HIGHWAY

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facilitate on-site retention and percolation of surface water, and to minimize hazards to development.

13. Facilities providing for active and passive recreational uses of the open space areas may be provided subject to County approval.

A. Such facilities may include hiking, jogging, and equestrian trails and vista points within the central hillside open spaces.

B. Tennis and racquetball courts, swimming pools, play fields, health club facilities, and similar more intensive recreational facilities may be located in the areas designated in Figure E for recreational uses.

C. Mini-parks, jogging trails, playgrounds, swimming pools, tennis courts, and similar facilities may be located within the smaller open space areas interspersed among the residential clusters.

D. Recreational facilities shall be managed and maintained by an owners' management association or other appropriate entity legally empowered and obligated to manage these areas and to collect fees or assessments as necessary for their maintenance.

E. A comprehensive Open Space/Recreation Management Plan for all open space areas of the project, shall be prepared by the developer indicating how the open spaces within the project will be used, managed and conserved. This program shall be submitted to and approved by the County prior to final discretionary approval is given by the County for any portion of the development authorized by this specific plan.

14. The central open space areas of the project south of River Road may be utilized for wastewater treatment and disposal when consistent with the approved Open Space/Recreation Management Plan and the approved Wastewater Management Study.

G. ENERGY CONSERVATION POLICIES

1. Each residential unit should be afforded adequate solar access for the operation of active and passive solar systems. Locating structures with their major axis oriented within 22.5° of true east/west is generally the best means to insure adequate south-facing solar access. For single-family homes, the orientation is fairly simple to implement as is full access to the south wall for passive solar design. For multi-family units, orientation and access are more difficult; generally south roof access for active space heating or domestic water heating systems is considered sufficient.

2. Careful design of structures to utilize solar access and to control heat loss and heat gain can achieve significant energy conservation. When these design elements are coupled with passive design features (thermal storage units, south facing glass, domestic hot water systems and other energy conserving components),

the energy conservation potential greatly increases. Support structures built by the developer such as commercial areas, swimming pools, recreation and community buildings should make maximum use of alternate energy sources both to reduce operation costs and to serve as community examples.

3. The addition of pedestrian and bicycle paths to the internal circulation systems could further reduce the need for automobile use.

H. PRESERVATION OF SIGNIFICANT AGRICULTURAL LAND

GOAL: To preserve and protect significant major areas of prime and productive agricultural land.

BACKGROUND

In Monterey County's unincorporated areas, agriculture is by far the most predominant land use. The Salinas Valley contains some of the finest agricultural soil in the world, and is one of the only areas in the United States with a large level area of highly productive soils, as well as ocean fog which is so desirable for succulent vegetables. Historically, agriculture has been the greatest single source of income in the County of Monterey.

As the population of the County has continued to increase over the years, it has become increasingly apparent that this agricultural base of the economy must be protected, while accommodation is made for anticipated growth. Consequently, the County's plans are replete with policy statements attempting to balance these potentially conflicting interests.

As thus proposed, this Specific Plan is consistent with the agricultural land preservation policies of the Monterey County General Plan and the Toro Area Master Plan.

OBJECTIVES

1. To provide for permanent agricultural use of lands north of River Road and to preserve them in open space.

2. To relieve pressure for residential land use on intervening prime agricultural lands in the area south and southwest of the City of Salinas and north of the Salinas River (the Blanco Area).

3. To accommodate the foreseeable housing demand within the River Road ADC, utilizing a compact residential land use pattern.

4. To direct residential expansion into the non-agricultural belt along the foothills.

POLICIES

1. Preserve the agricultural lands north of River Road in agricultural zoning and in a permanent agricultural open space easement.

2. Retain the lands north of River Road in agricultural production.

I. DESIGN AND SENSITIVITY

GOAL: To provide a program of design standards and regulation to assure that all structural development at Las Palmas Ranch will be aesthetically pleasing, internally consistent and visually integrated with the natural surroundings including major open spaces.

BACKGROUND

Section E of this Chapter II identifies the significant open space elements of the Las Palmas Ranch site. The policies enunciated in that section provide for the appropriate placing of concentrated development on the site consistent with the conservation of these major open space elements.

The design of the roads, buildings, and other facilities is equally as important to the overall visual impact of the project as is the location of development. This section establishes the policy framework for the design of such improvements.

The primary design consideration shall be the creation to the extent possible of a "rural" or "country" atmosphere within the development. Too often "rural" or "country" is equated mistakenly with rambling ranch-style homes on large lots; yet most residents in concentrated housing in the unincorporated areas (for example, San Benancio Village, The Bluffs, Del Mesa Carmel) feel that they live in the "country" and that their development is "rural." An analysis of such projects, both in Monterey County and elsewhere, discloses a number of common design features which help to create the "rural" or "country" atmosphere:

- Sensitive design of buildings emphazing the relationship of buildings to natural land forms and utilizing nonobtrusive natural materials such as wood and native stone, and low intensity exterior colors.

- Clustering of buildings in curvilinear patterns inerspersed with open spaces.

- Landscaping which follows "natural" patterns, i.e., irregular shapes and mounded surfaces, informal massing, or irregularly spaced trees and plantings.

- Preservation of mountains, hillsides and significant woodlands or farm areas which can be seen from the development areas creating a sense of closeness to major open spaces.

- Public improvements which reflect a "country" rather than a "city" atmosphere, e.g., meandering walkways of natural materials rather than curbs and sidewalks; exterior lighting including street lighting controlled as to intensity and direction; traffic, directional and other signing made of wood and without interior lighting.

- Availability of active and passive recreational opportunities not available in the city.

OBJECTIVES

1. To mitigate adverse visual impacts of the proposed development upon significant open space and viewshed areas.

2. To create to the extent possible a visual sense of "country" living within the development.

POLICIES

1. All areas of the project proposed for structural development shall be placed in a site and design control district to ensure county enforcement of the design policies of this specific plan.

2. The deed restrictions for the project shall provide for the master homeowners association to have architectural and site review authority to enforce the design policies of subdivision deed restrictions. This authority shall be in addition to the design control authority of the County. Adoption of this Specific Plan shall not be construed as an obligation on the part of the County to create or enforce homeowner association rules.

3. All structures, including residential, commercial, recreational and accessory buildings; fences; walls; decks and signs shall require design approval. Approval shall be based upon conformity with the policies of this plan as well as the following specific criteria:

A. Compatability of external design, materials and colors with existing structures in the development and with the semi-rural setting.

B. Conformity of design and location of structures with respect to existing ground elevations and natural land forms.

C. Mitigation of visual impacts visual from within the development and from major designated view corridors outside of the project.

D. Protection of significant trees and vegetation. Trees over 36" in circumference (four feet above the ground) shall be retained. Where it is necessary to remove such trees for better design or layout, then they shall be replaced on a two for one basis subject to the approval of the Director of Planning.

E. Prevention of erosion, sedimentation and visual impacts resulting from grading, excavation, cutting or filling.

4. To the extent feasible, all structures should utilize natual materials such as wood and native stone and low intensity earth-tone exterior colors. Visually obtrusive building materials shall be avoided.

5. Low level exterior lighting, including street lighting shall be utilized consistent with maintenance and public safety and shall be unobtrusive, harmonious with the local area, and constructed or located so that only the intended area is illuminated and off-site glare is fully controlled. Street lights may not be used unless approved as conditions of permits obtained pursuant to this plan.

6. Horizontal and vertical street alignments should relate to the natural contours of the site insofar as is practical. Roads which are perpendicular to viewing areas or which involve excessive cut and fill should be discouraged.

7. Mounding, informal massing, or irregularly spaced trees, planting and other overall landscaping treatment should be utilized to screen development.

8. Preserve vegetation significant to the maintenance of visual quality and to the provision of erosion control on sensitive slopes.

9. Where possible consistent with public safety, alternative public improvement standards should be applied by the county to reduce visual impacts and add to the rural character of the development. Such alternative standards may allow, where appropriate:

A. Reduced graded section of roads.

B. Elimination of sidewalks or utilization of meandering pathways of natural materials in the place of sidewalks.

C. Elimination of curbs or utilization of berms or vee gutters in the place of curbs.

D. Extended cul-de-sacs rather than looped roads.

E. Street lights at greater intervals; street lights of lower intensity; and street lights on ground level standards.

F. Street name signs and regulatory devices constructed of wood or other natural materials and of a size and height compatible with the surroundings.

10. All new utilities shall be placed underground.

11. No development shall be allowed on slopes over 30%, except where necessary for construction of limited portions of roads following existing ranch roads, serving the development areas shown on Figure F; or where necessary to

maximize the goals, objectives and policies of this Plan and the Monterey County General Plan.

J. EROSION, DRAINAGE AND FLOOD CONTROL

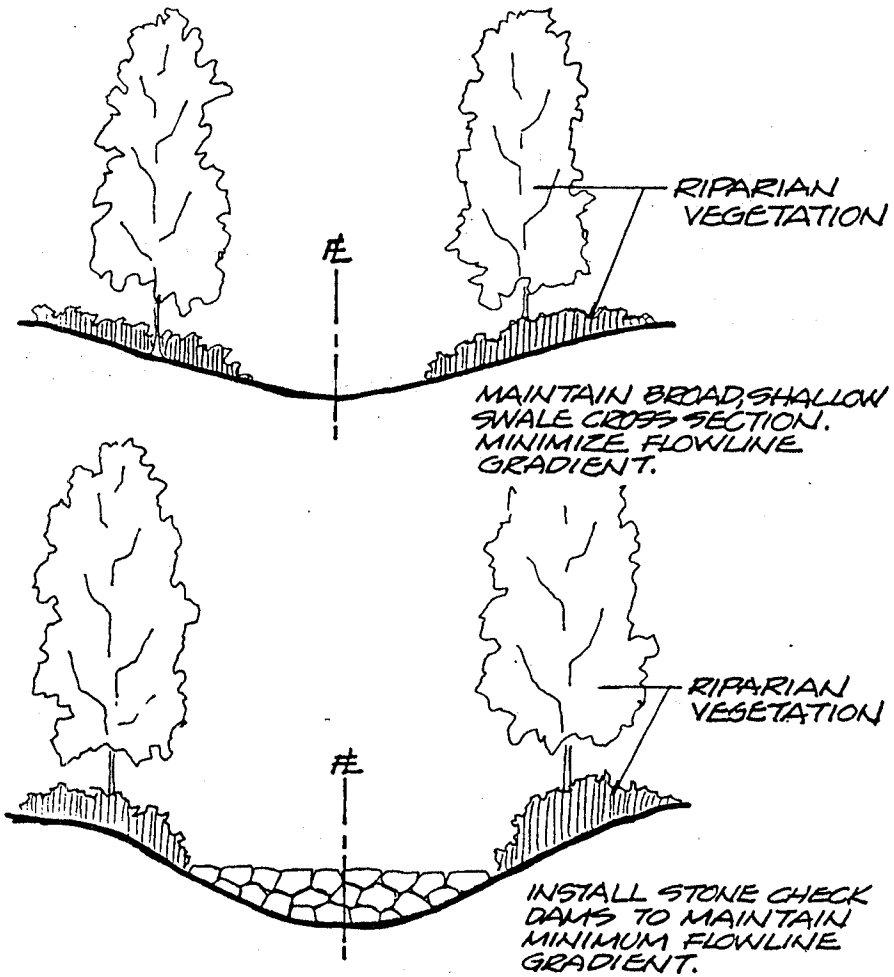
GOAL: To minimize erosion, siltation and sedimentation, and to protect on and off site areas from damage, through an integrated watershed management and flood control program.

BACKGROUND

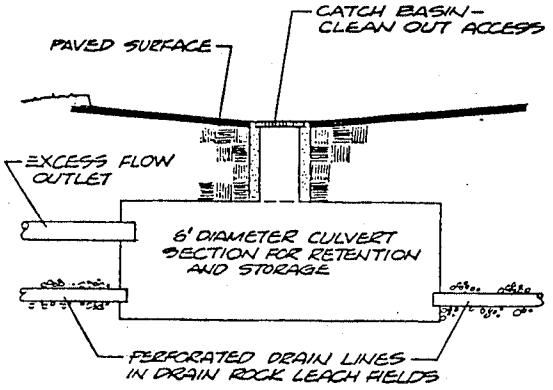
In November of 1980, Cooper and Clark, consulting engineers, published their report entitled "Phase I - Geologic Reconnaissance and Geologic Hazards Investigation - Las Palmas Ranch." The report provides detailed information relative to existing site conditions and the erosion potential of the Las Palmas Ranch property. The full report is on file with the County of Monterey. Figures I and J, reproduced from that report, show the topography and geologic units within the property.

According to the Cooper and Clark report, the Las Palmas Ranch contains three principal drainage systems. The westerly boundary of the property is drained by a system terminating near the Corey House. A second drainage system terminates in the central portion of the site, across from the Spreckels Sugar Factory. The third drainage system exists in the southeast portion of the site. The report indicates that the site vegetation consists of open grass-covered slopes with scattered growths of trees. Soil cover is widespread with sparse bedrock outcrops. Moderate to severe erosion is presently occurring along the drainage areas.

Analysis of the Cooper and Clark report by the project engineers and the project landscape architect indicates that the installation of erosion control devices such as slope planting and other landscaping, desilting basins, check dams and retention basins, could increase the times of concentration and thereby reduce the expected peak runoff volumes. Such a program could not only prevent further contamination of the Salinas River, but actually decrease the amount of sediments presently reaching the river. An erosion and drainage control program embodying these principles has been developed for the project by means of which erosion, siltation, sedimentation and drainage controls will be implemented in accordance with the Monterey County Master Drainage Plan.



DRAIN SWALES AND CHECK DAMS
NO SCALE



LENGTH OF CULVERT STORAGE SECTION WOULD VARY ACCORDING TO CAPACITY REQUIREMENTS DETERMINED BY AREA OF PAVED SURFACE TO BE DRAINED.

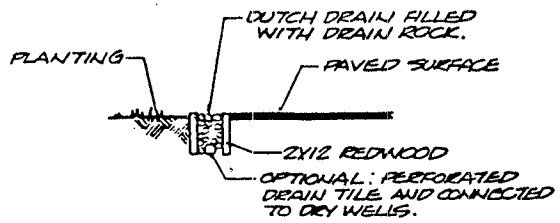
UNDERGROUND STORAGE/RETENTION
NO SCALE

Las Palmas Ranch

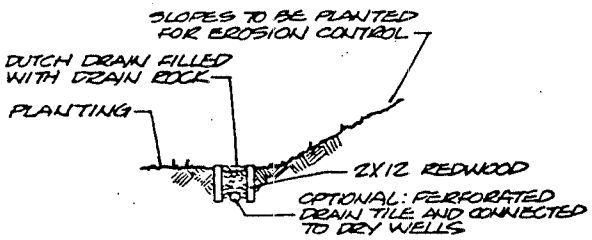
FIGURE I

EROSION AND DRAINAGE CONTROL CONCEPTS

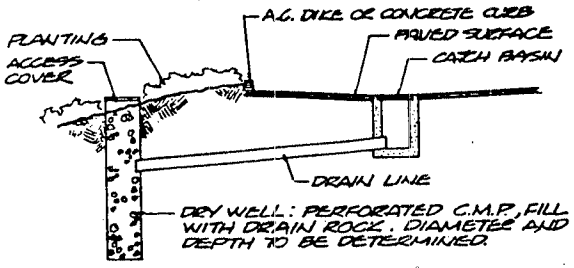
Monterey County Planning Department



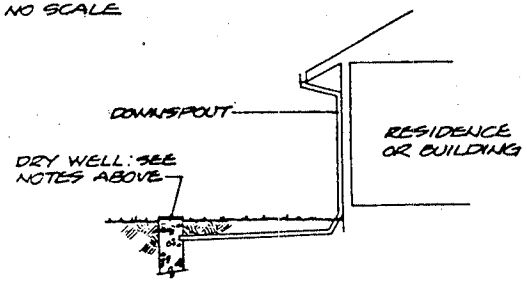
DUTCH DRAIN AT PAVED AREAS
NO SCALE



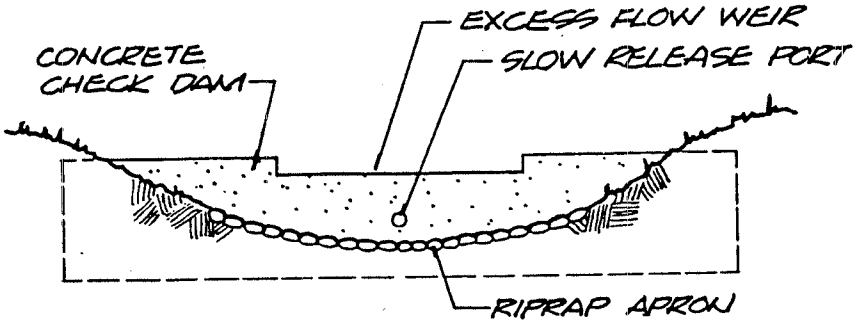
DUTCH DRAIN AT TOE OF SLOPES
NO SCALE



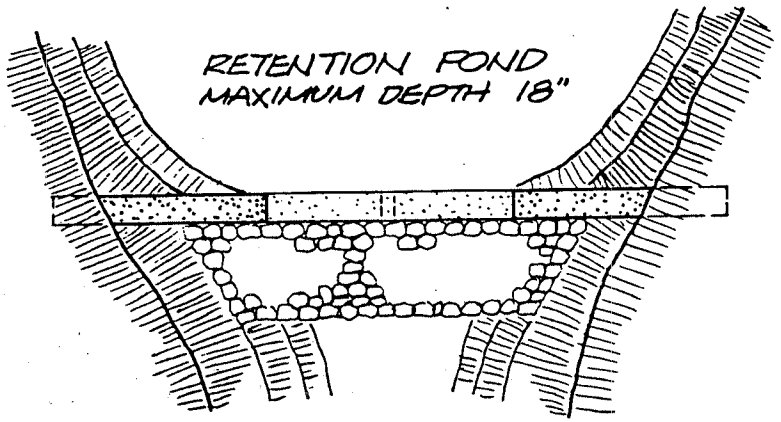
DRY WELLS AT PAVED AREAS
NO SCALE



DRY WELLS AT DOWNSPOUTS
NO SCALE



ELEVATION



PLAN

CHECK DAM AT RETENTION PONDS
NO SCALE

Las Palmas Ranch

FIGURE J
EROSION AND DRAINAGE CONTROL CONCEPTS

Monterey County Planning Department

OBJECTIVES

1. To protect on and off site areas from adverse effects of erosion, siltation and sedimentation.

2. To retain or percolate surface water on site to the maximum extent feasible.

3. To protect development from any adverse impacts from potential flooding of the Salinas River.

POLICIES

1. A comprehensive drainage plan for the entire project shall be prepared by the developer, and submitted to and approved by the County prior to final discretionary approval is given by the County for any portion of the development authorized by this specific plan.

2. Minimize alteration of natural drainage systems described in the Cooper and Clark report.

3. provide drainage reports for each phase of development showing all tributary areas and information pertinent to the capability of storm water detention and silt control facilities and mitigations for such identified impacts will be implemented.

4. Provide storm water detention/siltation ponds so that the flow rate from development will not exceed that from the tributary areas in its natural state during a ten year design storm.

5. Maintain and protect all natural streams or drainage corridors from development encroachment and where necessary make improvements to flowline gradients and to unstable side slopes.

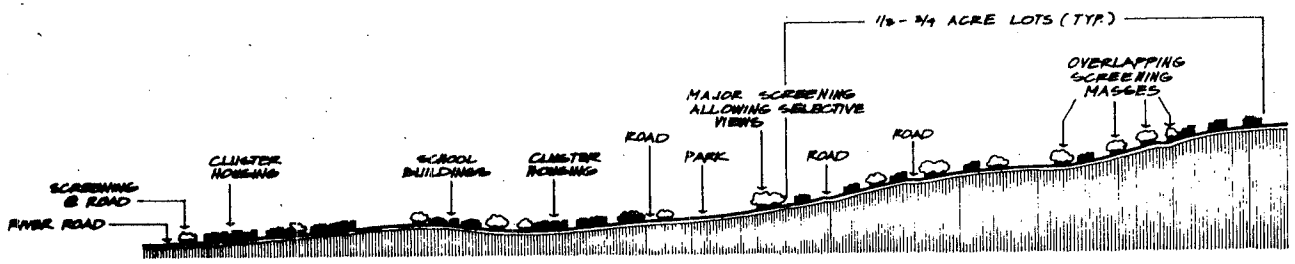
6. Plant all drainage ways with riparian vegetation to control downstream concentration of runoff, to promote upstream retention and to sustain streamflow over a longer period of time.

7. Minimize disturbance or removal of existing vegetation, including trees, shrubs and grasses or other ground covers.

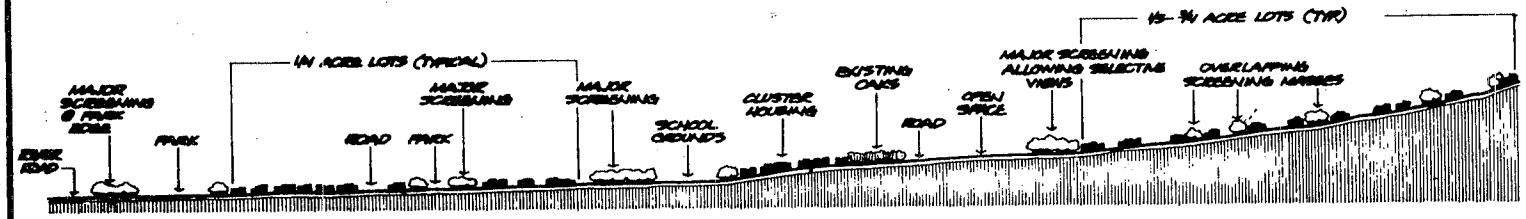
8. Provide engineering plans with each phase of development demonstrating that cut and fill slopes can be stabilized; the specific method of treatment and type of planting by area for each soil type and slope required to stabilize cut and fill slopes; and the time and amount of maintenance required to stabilize cut and fill slopes.

Las Palmas Ranch

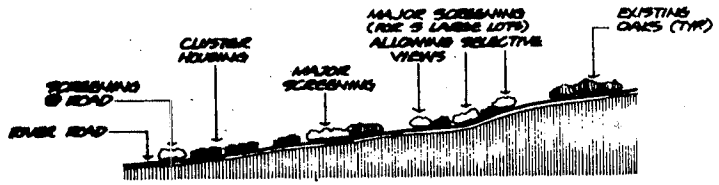
FIGURE K
CONCEPTUAL CROSS SECTIONS, NEIGHBORHOOD OPEN SPACES



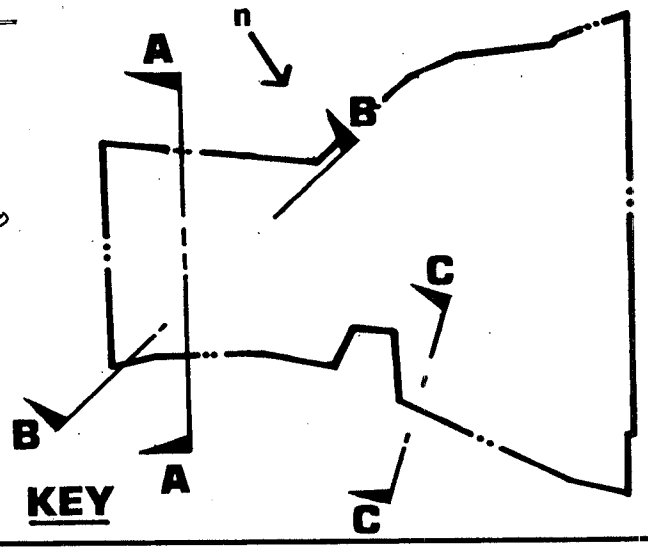
SECTION A-A
1" = 200'



SECTION B-B
1" = 200'



SECTION C-C
1" = 200'



Monterey County Planning Department

9. All graded areas of street rights-of-way shall be planted and maintained to control erosion. The area planted shall include all shoulder areas and all cut and fill slopes.

10. Require careful stockpiling of top soil to provide an adequate supply for placement on all graded or distrubed areas to ensure good plant growth for erosion control.

11. Maintain temporary erosion controls during construction. Improvement plans shall include a plan and implementation schedule of measures for the prevention and control of erosion, siltation and dust until erosion control plantings become established.

12. An owners management association or other appropriate entity shall be formed which is legally empowered and obligated to manage and maintain drainage and erosion control areas and facilities not owned or maintained by public agencies, and to collect fees or assessments therefor.

13. Provide drainage devices where controlled storm drainage is necessary.

14. Provide storm drainage retention devices and enlarge dissipators to reduce runoff in development areas so that the flow rate from development will not exceed that from the tributary area in its natural state during a ten-year storm.

15. Protect areas of potential aquifer recharge through the proper utilization of drainage facilities, open space and permeable materials.

16. Conform to State and County health standards for utilization and distribution of waters.

17. All storm water drainage facilities shall be constructed so as to outlet directly into the Salinas River under full flood conditions.

18. The developer shall:

A. Improve downstream drainage structures sufficiently to pass existing 10 year frequence flows through to the Salinas River.

B. Delineate the 100 year floodway and floodway fringe on the subdivision map based on the 1980 FEMA Flood Insurance Study or such maps as may update existing flood hazard area studies.

19. No development shall occur in the floodway and structures built in the floodway fringe shall be flood-proofed.

K. PUBLIC FACILITIES AND SERVICES

GOAL: To provide appropriate levels of public facilities and services to serve the higher intensity land uses proposed for the Las Palmas Ranch.

BACKGROUND

The Monterey County Growth Management Policy states that areas of higher density development must provide appropriate levels of public services, such as water, sewage disposal, roads, schools and fire protection.

Public service concerns associated with the Las Palmas Ranch project include both capital improvement, or one-time infrastructure needs; and on-going operating needs.

Since the passage of Proposition 13 there have been great changes in the manner in which public services are provided. While property taxes and general fund monies were the principal source of funding in the past, direct developer installation of on-site infrastructure in conjunction with development fees and assessments is now the norm.

The county will look to the developer of Las Palmas Ranch to be the prime mover in making the necessary public services and facilities available. In some cases, such as the waste water treatment system, this will require creating a system where none now exists. In other cases, such as the water system, schools and fire protection, it may mean meeting demands for increased capability of existing delivery systems.

The purpose of this section of the plan is to establish what public facilities may be needed to accommodate the development of Las Palmas Ranch, and when and in what form they should be provided. Various means of financing initial construction and on-going operation are discussed in Chapter IV.

1. WATER

Fortunately the River Road area is blessed with an abundance of good quality water.

Las Palmas Ranch is located entirely within Monterey County Flood Control and Water Conservation District Zones 2 and 2A. In a report to the Board of Supervisors on June 23, 1981, Robert Smith, District Engineer for that district, confirmed that water adequate for all proposed development in the River Road ADC area is readily available. Smith stated further that the proposed levels of development in the River Road ADC area do not pose any threat of degradation to the groundwater of the area. Consequently, this section of the specific plan will discuss only the proposed water delivery system.

Some smaller water systems in parts of the Toro Area have suffered from under-capitalization and piecemeal expansion. In contrast, one of northern California's largest and most reliable water utility companies, California Water Service Company, presently serves the River Road area and is ready and able to extend service to Las Palmas Ranch. Their system will provide both domestic and fire flow services to this project in accordance with the requirements of county and state regulatory agencies. If for some unforeseen reason California Water Service Company would not extend service to Las Palmas Ranch, adequate water can be developed easily from on-site wells to meet all state and county requirements through an incorporated mutual water company.

POLICIES

1. As the first priority the entire development must be served by a public utility water company providing domestic and fire flow in accordance with the requirements of State and County health and fire agencies. If a public utility water company satisfactory to the County is not feasible, then an incorporated mutual water company may perform this function.

2. Availability of water meeting the requirements of Policy No. 1 shall be demonstrated as to each increment of development prior to filing of a final subdivision map or issuance of any building permit for that increment of development.

3. Plans and specifications for domestic and fire flow water supply shall be submitted to local and state environmental health agencies for approval.

2. WASTEWATER

The concentrated development proposed for some areas of Las Palmas Ranch requires that a wastewater system be provided rather than utilizing individual septic tank systems.

The River Road ADC is within the area proposed for eventual service by the regional sewage system planned by the Monterey Regional Water Pollution Control Agency (MRWPCA).

However, the regional system, if constructed, would not be available until midway through the Las Palmas Ranch development. It appears that Las Palmas Ranch would be served best by a wastewater system that is capable of providing long-range service to the project, if necessary, but is also compatible with the regional system, if and when it becomes available.

A County Sanitation District or Community Service District is proposed to own and operate the collection, transmission, treatment and disposal facilities not owned or operated by MRWPCA.

POLICIES

1. Concentrated development within the project (i.e. development at greater than one unit per acre) shall be served by a wastewater treatment facility approved by local and state health agencies. Areas with lots larger than one acre in size may utilize septic tanks provided that appropriate soils tests and nitrate loading studies are submitted to and approved by the Health Department prior to approval of any tentative subdivision map and required permits are obtained from the Health Department.

2. The wastewater treatment facilities for Las Palmas Ranch shall be either an on-site facility approved by appropriate local and state health agencies,a consolidated facility with Spreckels, or connection with Monterey Regional Water Pollution Control Agency. If such facilities are owned or operated by a governmental entity not subject to control by the Monterey County Board of Supervisors, said entity's approval of all plans for such facilities shall be subject to the satisfaction of the Health Department. Location of any on-site facilities shall be subject to land use controls, and shall not conflict with any agricultural uses. Treatment facilities shall not be located north of River Road nor shall this area be used for effluent storage or disposal.

3. The Las Palmas Ranch wastewater treatment and disposal facilities should be designed to be compatible to be connected to the regional system proposed by Monterey Regional Water Pollution Control Agency.

4. A County Sanitation District, Community Services District, or other appropriate public entity meeting the requirements of the Public Works Department shall be formed prior to filing any final subdivision map to own and operate the collection, transmission, treatment and disposal facilities not owned or operated by MRWPCA.

5. A third party engineering consulting firm acceptable to both the developer and the County shall be employed by the County and paid for by the developer to review and approve the developer's plans for the wastewater treatment facilities.

6. A detailed wastewater management study for the entire project must be submitted to local and state health agencies for approval prior to final approval of the tentative map for the first increment of residential development. The study shall designate the type of public entity (county sanitation district, community services district or other entity) to be formed to own and operate the wastewater facilities, and whether such agency will be a county-operated agency or a non-county-operated agency.

7. Should an on-site wastewater treatment and disposal facility be abandoned in the future, the facility should be demolished and the land converted to agricultural or open space uses.

8. Availability to wastewater treatment and disposal facilities meeting the requirements of the foregoing policies shall be demonstrated as to each increment of development prior to filing of a final subdivision map or issuance of

any building permit for that increment of development. The developer must demonstrate that the wastewater facilities for initial increments of the project are capable of expansion to serve the entire project.

9. A discharge permit from the California Regional Water Quality Control Board, if required; any annexation agreements with Monterey Regional Water Pollution Control Agency, if appropriate; and all other permits (other than building permits and grading permits) necessary to construct and operate the wastewater facilities shall be obtained prior to acceptance of improvement plans, subdivision agreement or final subdivision map for the first increment of development in the project.

10. Wastewater shall not be permitted to flow, seep or drain into the Salinas River.

3. SCHOOLS

At buildout, Las Palmas Ranch will generate approximately 400 K-8 and 200 9-12 grade students, at least in initial occupancy years. A review of this educational picture with the Spreckels Elementary School Board has been undertaken and the board has seen a ten acre parcel on the Las Palmas Ranch designated in this Specific Plan as an elementary school site, should the district need another school (see Figure D). The superintendent of the Salinas Union High School District wrote on May 27, 1981, that the high school has experienced about a 10% decline in enrollment from the Toro Area over the last five years and that the decline is expected to continue if not accelerate. Salinas High School has indicated ability to accommodate its share of student population from Las Palmas Ranch at existing facilities in Salinas.

Monterey County has enacted a school facilities fee/dedication ordinance for the purpose of providing a method of financing school facilities necessitated by new residential developments.

POLICIES

1. Dedicate an elementary school site, at least ten acres in size, as shown in Figure D.

2. Comply with the Monterey County school facilities fee/dedication ordinance.

4. FIRE PROTECTION

Fire protection to the River Road ADC is presently provided by the Salinas Rural Fire District from a station on Portola Drive just west of the interchange of River Road and Highway 68. This station houses a three-man engine company. Besides the pumper truck, two other pieces of equipment are kept at this station, a grass and brush truck and a tanker, the latter required for fires in areas with inadequate water systems. The station also has a paramedic emergency service unit.

According to the fire district, significant development in the River Road ADC may, at a future point, require the development and manning of a new station in the River Road area. The timing of such investment by the district and the staffing arrangement are dependent upon the pace and scale of overall development (at Las Palmas, Toro Vista, Vista Del Rio, and Indian Springs), and the outlook for volunteer manning of certain facilities.

POLICIES

1. Provision shall be made for necessary fire protection facilities.

5. POLICE PROTECTION

Police protection is provided to the area by the Monterey County Sheriff's Department operating from the headquarters facility in the county civic center in Salinas, approximately four to five miles from the site. The River Road area currently requires minimum usage of police services. According to the head of the patrol division, service needs are determined by the incidents of crime in an area rather than by the population. The River Road area is considered a low crime area and would be expected to remain so even with the development of Las Palmas Ranch. According to department sources, the addition of 2,770 people in the area would not require the initiation of a new beat and thus there would be no substantial increase in sheriff department costs as a result of the proposed project.

Policy.

1. Provision shall be made for necessary police protection.

CHAPTER III

THE REGULATORY FUNCTION

Government Code, Section 65451 requires that a specific plan shall include all regulations which shall be necessary or convenient for the systematic implementation of the plan. This Chapter III is intended to satisfy the requirements of section 65451 by discussing those existing and proposed regulatory functions which will be required of Monterey County in order to make the goals, objectives and policies of this specific plan a reality.

A. CEQA COMPLIANCE

The adoption of this specific plan is in itself a "project" which requires environmental assessment pursuant to the California Environmental Quality Act, Public Resources Code Section 21000 et seq ("CEQA"). With that in mind, the Board of Supervisors directed that an environmental impact report ("EIR") be prepared for this plan. The EIR addresses not only the proposed development of Las Palmas Ranch, but also the general plan amendment by which the River Road ADC was established.

Government Code, Section 65453(b), a portion of the specific plan law, provides that notwithstanding any other provision of law, no EIR or negative declaration need be filed for any residential project, including any subdivision or zoning change, which is undertaken pursuant to and in conformity with a specific plan for which an EIR has been certified. Thus, in the absence of substantial change (see Public Resources Code, Section 21166, and County Guidelines, Section 607) the EIR certified in connection with this Specific Plan serves as a "master" EIR for all of the residential development at Las Palmas Ranch.

Subsequent focused EIR's may be required for nonresidential aspects of the project to explore mitigation alternatives in detail. Supplemental EIRs will not be prepared for the residential development unless required by Government Code Section 65453 (b) and Public Resources Code Section 21166.

B. ZONING

The Las Palmas Ranch is presently in three zoning classifications: F-V-B-5; K-V-E-B-4; and SC/1-E-V. None of these classifications as presently applied is appropriate for the interim or ultimate land use regulation of the property.

1. Interim Zoning

Following approval of the specific plan, but prior to the filing of any subdivision map for the first increment of development, it would be appropriate to place the entire ranch into an interim or holding classification or classifications that would recognize its future use pursuant to the specific plan, but prevent the development of inconsistent uses prior to first increment subdivision. The agricultural land north of River Road should be retained in the F-V-B-5 (exclusive

agriculture) classification. The balance of the ranch should be classified "T" (transitional) or other appropriate holding classification which limits inconsistent interim uses but anticipates further rezoning.

2. Ultimate Zoning

The tentative subdivision map for each increment of development should be conditioned to require "follow-up" rezoning to a classification corresponding to the character and density of use specified for each of the lots or parcels included in that subdivision map. Single family lots larger than one acre ordinarily should be placed in "RR" (rural residential) classification. Lots of one acre or less proposed for the detached single family residential development ordinarily should be zoned "R-1-B-6".

Parcels proposed for condominium, townhouse ("PUD"), zero lot line, or other multifamily development, ordinarily should be placed in "ST" (special treatment), "R-1-S" (integrated single family), "R-2" (duplex), or "R-4" (multifamily) classification, depending upon the nature and circumstances of each individual application. All commercial areas should be placed in "PC" (planned commercial) zoning. In the case of the Corey House, the "PC" zoning should be combined with the "HR" (historic resources) district to assure the protection, enhancement and perpetuation of the historic character of the structure. The "D" (design control) combining district should be applied to all areas proposed for structural improvement. Major open space areas should be placed in "O" (open space) zoning.

C. USE PERITS

All of the residential development proposed within areas zoned "ST" will require issuance of a conditional use permit. Residential development within the other zoning classifications may require a conditional use permit depending upon the character or density of the proposed development.

Commercial development under the "PC" zone will require both a general development plan covering the entire commercial complex; and one or more zoning permits for individual buildings or uses covered by the general development plan.

Whenever possible, use permit applications should be processed concurrently with subdivision or other corresponding procedures in order to reduce expense and delay both to the staff and to the developer.

D. SUBDIVISION

The Subdivision Map Act and the Monterey County Subdivision Ordinance define any division of land for purposes of sale, lease or financing as a subdivision requiring some form of local regulatory approval.

The process of actually subdividing the Las Palmas Ranch in accordance with this Specific Plan could follow a number of different routes depending upon marketing and economic conditions, the type and availability of development and

purchaser financing, and housing trends for both inclusionary and market rate housing. Both standard subdivisions and minor subdivisions may be utilized to implement this plan; and subdivisions for the purpose of both sale and financing may be required. In any event, it is apparent that the entire project will not be developed under a single tentative subdivision map.

The most foreseeable scenario is the submittal of a tentative subdivision map for a particular phase of the project. That tentative map may reflect the development of that phase in two or more increments of as few as twenty residential units.

In the case of a "first generation" subdivision, the tentative subdivision application will be accompanied by a rezoning application, and if required by the new zoning, a use permit application.

In order to implement the goals and objectives of this plan to provide a broad mix of housing types and prices, two or more "generations" of subdivision may be required. The "first generation" subdivision, for example, may create a group of larger parcels with an assigned density in accordance with this Specific Plan, to be followed by "second generation" subdivisions of each "first generation" parcel to create the specific planned development (whether standard subdivision, multifamily, condominium, townhouse or other) thereon. Appropriate conditions should be applied at each stage of the subdivision process to assure that the objectives of this Specific Plan are carried out. Some "first generation" subdivisions may be conditioned to preclude any actual development until a "second generation" subdivision is approved in which case no exactions should be imposed upon the "first generation" subdivision.

Following approval of a tentative subdivision map, one or more minor subdivisions may be required, for example to allow the separate financing of one or more of the increments within the approved tentative maps, or to permit the sale of an increment to a joint venture developer or to a non-profit entity for the development of low or moderate income units. So long as the goals, objectives and policies of this plan are not subverted by the procedure the County should cooperate and assist in the phased and incremental subdivision of the project.

A number of means are available and should be used in connection with the subdivision process to reduce the ultimate cost of the housing units in Las Palmas Ranch.

1. Whenever possible, the subdivision approval process should be consolidated with corresponding zoning, use permit and similar procedures. In this way, staff, developer and public time and expense can be saved, and unnecessary delay avoided.

2. Optional or modified design and improvement standards should be permitted and encouraged where the liveability, convenience, or appearance of the project would be enhanced or where such design or standards would better achieve

the objectives of this Specific Plan and of the Monterey County Housing Plan to encourage the development of low or moderate income housing.

E. CONDITIONS OF APPROVAL

The Board of Supervisors at the time it approves this specific plan will adopt conditions of approval which will serve to supplement or amplify the goals, objectives and policies of this specific plan. If such conditions are imposed, they shall be deemed incorporated into and a part of this plan.

Conditions should also be imposed on tentative maps, use permits and zoning permits as required to implement the policies contained in this plan and to assure compliance with the terms of any development agreed utilized in connection with this Specific Plan.

F. MODIFICATIONS TO PLAN

Changes or modifications to this plan which do not substantially alter the nature of the uses, the population density or building intensity, or any of the goals, objectives or policies of this specific plan, shall be deemed ministerial and may be approved administratively. Any change or modification to this Plan which is not ministerial shall require approval by the Board of Supervisors of a specific plan amendment.

CHAPTER IV

NONREGULATORY IMPLEMENTATION

GOAL: To provide an innovative framework for private and public implementation of the facilities and services element of the Las Palmas Specific Plan.

DISCUSSION:

Full development of Las Palmas Ranch involves the construction, operation and maintenance of community facilities. These facilities include those serving community education, recreation, health and public safety functions. Limitations to the ability of existing public agencies to fund new public investment make it desirable to propose these developer-sponsored, nonregulatory implementation objectives and policies.

Development of Las Palmas Ranch may justify the use of assessment and service district financing in conformity with criterium 7 of Board resolution 83-121. Under California statutes, assessment districts (typically formed under the Acts of 1903, 1911, 1913 and 1915) have been employed to support initial financing of capital improvements, such as streets and flood control facilities. Service Districts (such as County Services Areas (-"CSA"); and Community Service Districts ("CSD") are commonly employed to provide a funding source for continuing programs, of operation and maintenance, such as parks and recreation programs, and police protection. Other special districts may be used to operate and maintain sanitation, water, lighting and like facilities.

The necessity to utilize any combination of the above districts will be governed by the timing and phasing of Las Palmas Ranch development, service levels to be established, the costs of constructing, operating and maintaining public facilities, and developer financing applied to these requirements. Rights and responsibilities of all involved witnesses will be established as the specific plan is approved and the Las Palmas Development Agreement is executed. Transfer of various properties or facilities from developer to homeowners' associations or public bodies also affects the extent to which private and public funds are required and employed.

The provision of public utility services to Las Palmas Ranch will be arranged via agreements between the developer and the serving utilities.

Elementary and high school education needs will be examined by the serving school districts (Spreckels Elementary and Salinas High School District) and met in accordance with district policies. New classroom construction at Las Palmas Ranch is at the discretion of Spreckels Elementary District.

The Las Palmas Ranch Specific Plan provides for nine hundred acres of land devoted to open space and natural recreation area, and twelve acres devoted to

mixed commercial/recreation/community uses. Ownership and maintenance of these facilities requires a special implementation approach.

The Las Palmas Ranch Specific Plan calls for restoration and maintenance of the Corey House and adjacent site area as a link with the property's heritage. Multipurpose use of the property is planned under developer ownership and control.

In summary, the policies following are designed to facilitate the timely identification of Las Palmas Ranch service and facilities needs, and the funding and provision of these required services and facilities within the overall phased development program. Applicable general objectives and specific policy statements follow:

GENERAL OBJECTIVES:

1. Arrange for the provision of adequate community services within approved areas of development concentration.

2. Provide for the development of adequate public facilities serving these areas of development concentration.

Minimize Monterey County operating and financing problems associated with provisions of these services and facilities.

A. ASSESSMENT AND SERVICE DISTRICT POLICIES

1. Appropriate assessment districts should be structured to supplement developer contributions and fully capitalize Las Palmas Ranch infrastructure and facilities requirements.

2. The impact of early project public improvement costs on housing costs should be reduced via the use of long-term assessment district bond financing.

3. A Las Palmas Ranch service district framework should be designed to adequately cover anticipated operating and maintenance costs for street lighting, street and flood control maintenance, parks, recreation facilities and the like.

4. A service district and assessment/bonding framework should be established to support Las Palmas Ranch capability to pay a necessary share of any future River Road ADC capital fund requirements for public protection (County Sheriff and Salinas Rural Fire Protection District) not yet determined.

5. Within the special district concept, a County sanitation district should be formed to own, operate and maintain the Las Palmas wastewater facilities, eliminating any disproportionate financial burden on regional wastewater systems and the County of Monterey.

6. Continuous monitoring and review of police protection needs at Las Palmas should be coordinated with the Monterey County Sheriff's Department.

7. The provision of any new operating funds or facilities for fire protection by the Salinas Rural Fire District should be implemented through the service district concept.

B. HOMEOWNER'S ASSOCIATION POLICIES

1. All areas and facilities to be owned in common should be transferred at appropriate intervals from developer to designated homeowners' associations or special districts.

2. The formation and operation of neighborhood, village (or similar) and master homeowners' associations should be implemented to receive, operate and finance properties to be held in common ownership.

3. Ownership and operation of public facilities should be accommodated within the facilities special service district (CSA, CSD, sanitation district, etc.).

4. An adequate legal and operating framework for resident homeowner associations and for ownerships of properties by service districts shall be developed.

APPENDIX

River Road Area of Development Concentration

General Plan Amendment

On March 22, 1983, the Board of Supervisors adopted an amendment to the Monterey County General Plan establishing the River Road Area of Development Concentration. This action and criteria becomes the basis for the formation of specific plans requiring any such plans in this area to be consistent with this action and meet the minimum requirements set forth in Board Resolution No. 83-121. The General Plan amendment is as follows:

BE IT FURTHER RESOLVED that the Board of Supervisors approves the following General Plan amendment:

A. Designates the River Road area as an Area of Development concentration;

B. The boundaries shall be those referred to the Planning Commission, as amended and as shown on the attached map, "River Road Area of Development Concentration dated March 22, 1983." The uses shall be those designated by and consistent with the General Plan for the area covered.

C. The development criteria for the Area of Development Concentration shall be as follows:

1. Existing or approved development within the River Road ADC shall be maintained or developed in accordance with existing or approved tentative or final subdivision maps, use permits or specific plans.

2. The basic residential density for the new major subdivision development within the River Road ADC shall be a maximum of one unit per gross developable acre except where topography, physical constraints or other factors would preclude this density. Development including septic systems shall not be allowed on slopes over 30%. Condominiums, town

houses, zero lot line houses, and other forms of clustered or multifamily housing, shall be considered within this basic density where adequate utilities are available; and shall be encouraged where such development will help to protect public viewsheds, natural resources or prime agricultural lands, or will facilitate providing housing for families of low or moderate income.

3. Developable acres within the ADC shall be determined by establishing the overall gross area and subtracting areas of cross-slope in excess of 30%; prime agricultural land, and any other areas constrained by physical or environmental reasons.

4. New residential subdivisions within the River Road ADC shall provide at least 15% of their units for families of low or moderate income.

5. The ADC shall contain a Development Incentive Zone (DIZ) of 10 acres and is to be developed at a maximum residential density of 10 units per acre.

6. Necessary public services and facilities in an ADC shall include, but not be limited to, police and fire protection, sewers, roads, road maintenance, erosion, flood control, drainage, recreation, emergency escape routes and elementary schools. Also, service and facility requirements for the ADC should be scaled to the nature and scope of the ADC.

7. New development within the River Road ADC shall be served by a public utility water system or an incorporated mutual water company providing domestic and fire flows in accordance with all requirements of state and county environmental health agencies. Provision of necessary public services may be addressed and provided for on an ADC-wide basis, based upon the County's determination including the need for service areas and assessment districts. The County may assist in these endeavors.

8. New residential subdivisions within the River Road ADC on lots of less than one acre shall be served by a community sewage treatment facility meeting all requirements of state and county environmental health agencies.

9. Adequate police and fire protection shall be available at the time of development.

10. Appropriate elementary school sites shall be dedicated.

11. In order to mitigate adverse impacts on significant view shed areas, the following standards shall be applied to new development within the River Road ADC:

a. Ridge top development shall be prohibited.

b. Low level exterior lighting, including streetlights, shall be utilized consistent with maintenance and public safety requirements.

c. Roads which are perpendicular to viewing areas or which involve excessive cut or fill shall be discouraged.

d. Visually obtrusive building materials and finishes shall be avoided.

e. Higher density housing units shall be clustered behind natural land forms or be visually compatible and unobtrusive.

f. Utilize mounding, informal massing or irregularly spaced trees, planting, and other overall landscaping treatment to screen development.

g. Preserve vegetation significant to maintain visual quality and to provide erosion control on sensitive slopes.

12. Erosion, siltation and drainage controls shall be implemented in order to enhance watershed management, to protect on site and riparian vegetation, to protect prime and productive agricultural land, to maximize retention and percolation of surface water on site and minimize hazards to development.

13. An irregular or meandering landscaped setback, with a minimum depth of 50', shall be established along the frontage of River Road.

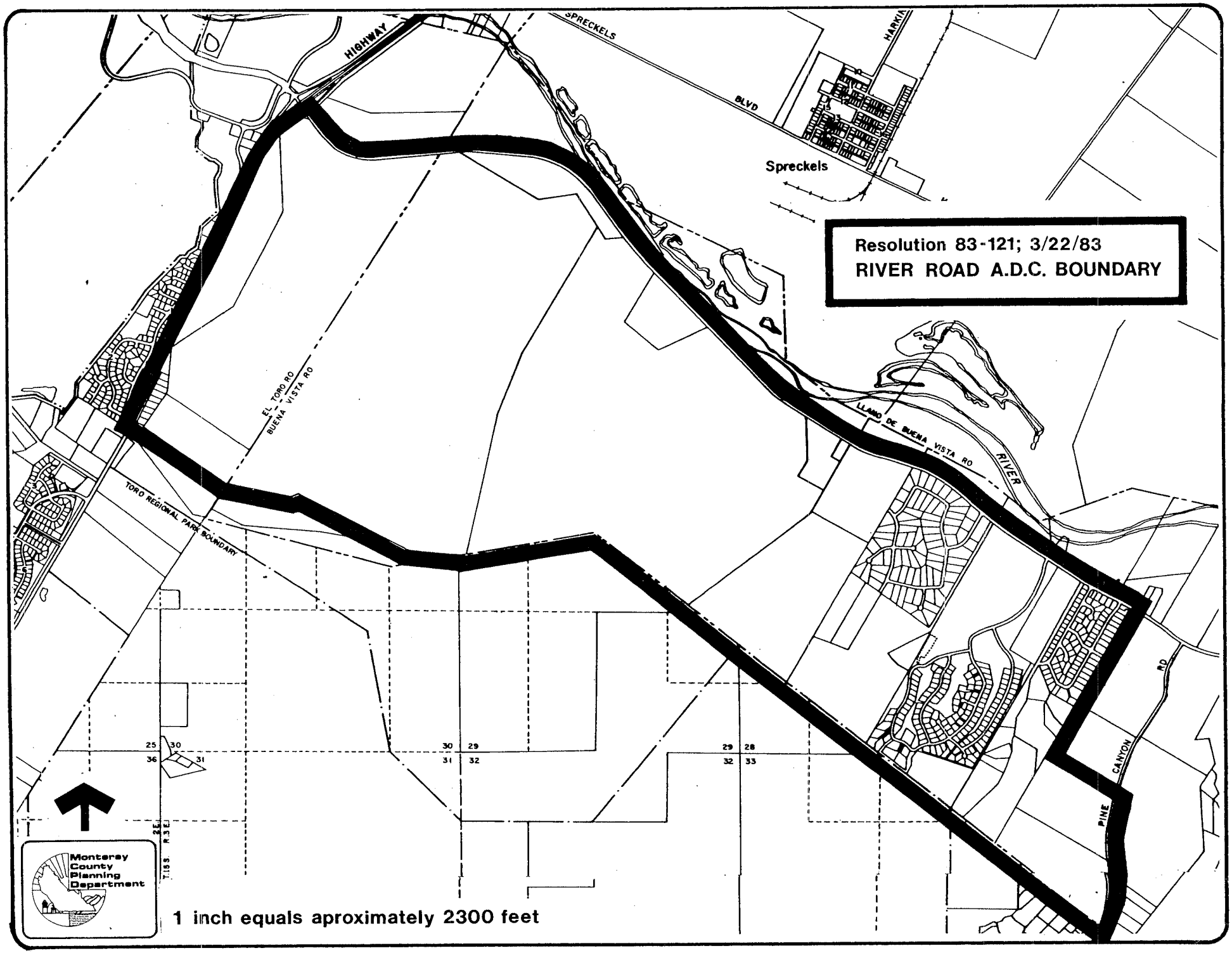
14. Provide centrally located commercial facilities appropriate to meet the convenience needs of residents of the River Road ADC. Such facilities shall be developed under general "Planned Commercial" or similar zoning which regulates uses, design and signing.

15. New residential subdivision within the River Road ADC shall provide usable open space and recreational facilities for the residents of the subdivision.

16. Significant archaeological and historical sites shall be preserved and protected as cultural resources. The Corey House should be restored and used for social, recreational and commercial purposes of a localized nature.

17. All new development within the River Road ADC shall provide detailed soils reports identifying sensitive and/or erodable soils. Such information shall be used to mitigate impacts and to insure the prevention of degradation and erosion of such sensitive soils and the degradation of agricultural lands adjacent to the ADC.

18. All run-off from such developments in the ADC shall be retained or directed so as to not adversely affect agricultural lands and farming operations north of River Road. This policy as well as the other policies herein shall insure the permanent preservation of agricultural lands adjacent to the ADC.


Resolution 83-121; 3/22/83
RIVER ROAD A.D.C. BOUNDARY
HIGHWAY
SPRECKELS
BLVD
HARKINS
Spreckels
EL TORO RD
BUENA VISTA RD
LLANO DE BUENA VISTA RD
RIVER
TORO REGIONAL PARK BOUNDARY
PINE CANYON RD
T.15 S. R.3 E.
R.2 E.
Monterey County Planning Department
1 inch equals aproximately 2300 feet

FINAL ENVIRONMENTAL IMPACT REPORT

FOR THE

RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION (EIR 81-111)

INCORPORATING THE

FINAL EIR

FOR THE

LAS PALMAS RANCH SPECIFIC PLAN (EIR 80-100)

APN 139-011-5 and
APN 139-012-2, 4, 5, 6, 7, 8 and 10
Base Map #12
File #PC3934

PREPARED FOR

MONTEREY COUNTY, CALIFORNIA

By

GRUNWALD, CRAWFORD & ASSOCIATES
City, Regional & Environmental Planning Consultants
804 N. Irwin
Hanford, CA 93230

FINAL

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ERRATA SHEET

The following corrections have been made according to requests by commenting agencies and individuals.

The text should be corrected on the designated pages to read as follows:

1. Page 64, paragraph 3, lines 3 and 4: (Delete the following: "9,000 vehicles per day or 900 vehicles per hour for service level "C" operation".)

2. Page 64, Table: 1980 Volume = 16,800.

3. Page 66, paragraph 1, line 1, second sentence: Although funding for the entire freeway is not on CALTRANS' 5 year improvement schedule, funding for a Toro Park interchange has been included.

4. Page 74, Mitigation Measure 1.d.: Left turn approaches should be striped on River Road approaches to northbound and southbound on-ramps to Highway 68.

5. Page 23, Public Works #2: The new streets for Las Palmas would be built by the developers and may be dedicated to the County as completed.

SUMMARY

PROJECT

This Environmental Impact Report (EIR) addresses the proposed River Road Area of Development Concentration (ADC) as the overlying "project" of the EIR with two alternative specific plans considered for the Las Palmas Ranch portion of the ADC. The Ranch (1,578 acres) is the only significantly large ownership within the proposed ADC that is not already committed to development other than agriculture.

The alternative plan for the Ranch that is based on the existing Toro Area Master Plan and the Monterey County General Plan is referred to in the EIR as the Existing Policy Specific Plan. The alternative plan that is based on the criteria for the proposed River Road Area of Development Concentration is titled the ADC Policy Specific Plan.

LOCATION

The proposed River Road ADC is bounded by River Road, State Highway 68, Toro Regional Park and Pine Canyon Road. Exhibit 1.1 shows these boundaries within the regional setting. Exhibit 1.2 depicts the Las Palmas Ranch within the proposed River Road ADC.

APPLICANT

Las Palmas Ranch Partnership.

IMPACTS AND MITIGATION MEASURES

The following discussion briefly summarizes potential impacts of each alternative plan for Las Palmas Ranch as well as the cumulative effects within the ADC area. The mitigation measures include those embodied in the specific plans and also those recommended in this report.

The summary indicates that even with the ADC Policy Plan's more extensive mitigation, the remaining unavoidable impacts in several categories are still greater than with the Existing Policy Plan. While the differences individually are not significant, the cumulative effect from full development with an ADC would probably be moderately significant compared to insignificant with the lower density plan with less than one-half the number of dwelling units.

Geology

Impact: For both alternatives, there is a potential for groundshaking and ground failure due to activity of nearby faults; the King City fault, however, does not exist on the Las Palmas development site.

Mitigation: Structural requirements of the Uniform Building code will mitigate most of the impact to structures.

Cumulative: Additional geotechnical studies may be necessary if development is proposed, in areas other than Las Palmas Ranch.

Soils

Impact: Both plans would remove 33 acres of productive agricultural land south of River Road for residential use; an additional 55 acres of prime soil north of the Road would be affected by the wastewater treatment facilities. Only about one-half of this 55 acres would be affected by the Existing Policy Plan due to less effluent treatment capacity while the ADC Policy Plan would influence virtually the entire parcel. However, the impact of either alternative specific plan is a significant adverse impact on the viability of the entire 88 acres.

There is a risk to development from soil hazard areas and soil erosion in both plans. This risk is relatively greater with the ADC Policy Plan, however, because more intense site development and greater use of "sensitive" soil capability areas are proposed.

Mitigation: If connection is made to the regional sewage treatment system, the proposed wastewater treatment facilities are to be abandoned and soil returned to unrestrained agriculture use. Drainage and erosion control plans would be required prior to final map approval.

Cumulative: Long-term agriculture use has a greater potential for erosion than urban use. Best Management Practices of the Soil Conservation Service are recommended for agricultural lands. The conversion of row crop land for housing (33 acres) and sewage facilities (52 acres) removes 85 of the 88 acres. Also, the 3 acres remaining would not be an economic row crop farming unit. This could set a precedent for Toro Vista to utilize the same type of treatment/ irrigation system which would remove additional farmland. If feasible, an interceptor to a regional plant would be more consistent with a primary goal of the ADC and General Plans for the area. However, 40 of the 52 acres proposed for wastewater treatment facilities would still be in agriculture but limited to non-food crops.

Hydrology

Impact: Increased runoff could cause on-site flooding and greater erosion hazard. The ADC Policy Plan could increase these hazards due to increased densities and more intense site coverage than the Existing Policy Plan. Uses north of River Road and to a limited extent south of the Road, could be subject to flooding from the Salinas River in a 100 year occurrence.

Mitigation: Extensive drainage and erosion control policies and proposals are provided in both plans and in the EIR. For the ADC Policy Plan, these control measures must consider greater runoff volumes and be planned accordingly. Uses within the 100-year flood plain are to be constructed to be flood-safe and located to avoid increased flooding downstream.

Cumulative: Undeveloped or agricultural parcels will continue to contribute to localized flooding and erosion problems. The cumulative impact from full development of the ADC area, using either alternative plan, would be no greater than the existing problems if the erosion, drainage and flood control programs proposed by the Ranch owners and those in the EIR are fully implemented.

Groundwater

Impact: An adequate groundwater supply is anticipated for development in the River Road area. There is a greater potential for declining water quality with the ADC Policy Plan than the Existing Policy Plan because of a greater pumping rate (922 ac/ft per year vs. 450).

Mitigation: For either plan, a water conservation plan is proposed. Engineered treatment for sand, iron, and manganese removal, and a chlorinator, will mitigate quality concerns.

Cumulative: Even with complete development of the River Road ADC, no long-term groundwater impacts are expected.

Vegetation

Impact: Damage or removal of mature oaks could occur. Intense development in a major area of oaks is proposed by the ADC Policy Plan. In both plans, introduced plants could flourish at the expense of natives.

Mitigation: A tree preservation policy is proposed with criteria for identifying specimen trees. Areas of important vegetation should be preserved and natural species planted in landscape areas.

Cumulative: Native vegetation will be removed increasing potential erosion problems and decreasing wildlife habitat, but the total impact would not be significant.

Wildlife

Impact: Wildlife habitat areas will be altered and ranges limited. Domestic pets will be introduced; this is more critical with the ADC Policy Plan due to more-than-twice the number of households.

Mitigation: Important habitat areas should be retained in open space, including grassland, woodland, chapparal, and riparian habitat. Leash laws should be strictly enforced and residents educated as to impacts of pets on wildlife.

Cumulative: There will be displacement of some larger species to nearby open lands leading to the eventual loss of these individuals. The habitat for many species, such as songbirds, will be enhanced.

Aesthetics

Impact: Viewshed from Salinas Valley could be affected by both development plans as could views from Highway 68 and River Road. The ADC Policy Plan has a somewhat greater potential to disrupt on-site views.

Mitigation: In both plans, development is proposed behind the major ridge lines visible from Salinas and Highway 68. A 50' landscaped setback is proposed along River Road to provide screening for motorists. Both plans propose architectural controls and reviews by a homeowners' association.

Cumulative: Despite visual controls, the River Road area will continue its gradual change from an open rangeland area to a semi-urban environment.

Noise

Impact: Ambient levels will increase to those of a more urban area. The ADC Policy Plan will have a greater impact on the noise environment because:

- construction noise will be more widespread and prevalent due to greater construction activity.

° higher density areas generally create more nuisance related problems; noise complaints will increase.

° larger traffic volumes on River Road will increase the area of noise concerns adjacent to the roadway.

Mitigation: Construction activities will be limited to weekdays during daylight hours. The 50' landscaped setback along River Road will provide some mitigation; the building setback in both plans, however, should be outside the 60 CNEL contour.

Cumulative: The major noise impacts in the River Road ADC will be at Las Palmas and Toro Vista although ambient levels will increase slightly throughout the area.

Traffic

Impact: For the Existing Policy Plan, increases in daily traffic will reduce Level of Service on River Road, but LOS "C" would probably be maintained. ADC Policy Plan traffic would reduce LOS on River Road to "D" during morning rush hours. For both plans, the south-bound on-ramps and north-bound off-ramps of Highway 68 will be impacted, increasing congestion.

Mitigation: For the Existing Policy Plan, River Road should be constructed to Secondary Street status with right and left turn pockets constructed on River Road approaches to site entrances. For the ADC Policy Plan, River Road should be constructed to Major Street status with appropriate turn movements.

Cumulative: Due to the combined impact from throughout the region, the State and County will ultimately have to construct Highway 68 to four lanes between River Road and Highway 1. New development which would directly impact this

segment should be included in "zones of benefit" and pay a fair-share formula into an improvement fund.

Air Quality

Impact: The primary air quality impact from either plan would be the cumulative increase in vehicle emissions. Neither plan would have a significant air quality impact but would add incrementally to overall degradation of air quality in Monterey County.

Mitigation: Proposed mixed land use, transit use, and alternatives to the auto (foot and bike paths) will help to decrease auto travel and exhaust emissions. The County's Air Quality Maintenance Plan remains the best opportunity for promoting basin-wide air quality improvement strategies.

Wastewater Management

Impact: There are no existing central systems serving the ADC area. The applicant proposes that all lots in either plan be served by a community system. Total wastewater discharge from the Existing Policy Plan would be 164,000 gallons per day and 360,000 gallons per day from the ADC Policy Plan. The wastewater treatment facility is proposed north of River Road on prime agriculture land. The reclaimed water would be used for irrigation of non-food crops. The facility is in the 100-year flood plain of the Salinas River.

Mitigation: Potential impacts can be mitigated by discharge requirements of the EPA, the State Water Quality Control Board and the County Health Department. If connection to the regional system is realized, the treatment plant should be dismantled and the land reclaimed. The treatment plant can be protected from flooding with encompassing levees.

Cumulative: Due to the potential cumulative impact to the groundwater from individual private systems, consideration should be given to a design solution

to include at least the Toro Vista development as well as Las Palmas. A district should be formed to operate wastewater treatment facilities (either a county sanitation district, community services district or county service area).

Water Service

Impact: All units in both plans would be served by community water system. Most significant impact is system management and maintenance.

Mitigation: The design and operation is subject to requirements of the PUC, State and County Health Departments, and the Monterey County Flood Control District. Operating under Health Department regulations, a private water company would operate and maintain the system.

Cumulative: To avoid duplication of service, consideration should be given to an area-wide service entity to ensure continued adequate water service.

Schools

Impact: The Existing Policy Plan would generate 346 K-8 students and 166 9-12 students. The ADC Policy Plan would generate 757 K-8 students and require a new elementary school and 363 9-12 students. The Salinas High School would not be significantly impacted.

Mitigation: A 10-acre elementary school site is proposed to be reserved at Las Palmas and the County's SB 201 ordinance imposed.

Cumulative: No new high school will be needed for the River Road area. An elementary school will be required which would also serve existing development in the area thus reducing current busing requirements. In addition to site reservation and temporary classroom fees, permanent classrooms will be needed.

Fire Protection

Impact: There will be increased wildland fire hazard in an area rated moderate to high hazard, and an increased demand on the Salinas Rural Fire Protection District for structural fires.

Mitigation: Both plans should incorporate design considerations to reduce on-site fire potential. Fees should be assessed for additional manpower and equipment.

Cumulative: When the River Road area is fully developed, an additional fire station may be required at a cost of $250,000 to $400,000. Twenty-four hour service by a 3-man crew would require an annual operating budget of $300,000.

Police Protection

Impact: Increased demand for police service would result, although this would remain a low crime area. The ADC Policy Plan would create additional demand due to larger population, areas of higher density and greater commercial floor space.

Mitigation: Site plan review is recommended for design related deterrents to crime; homeowners and the Sheriff's Department should create a Neighborhood Watch Program.

Cumulative: No significant long-term impacts on the Sheriff's Department are anticipated.

Energy Conservation

Impact: Provision of electricity and natural gas service will not stress existing capacities. For either plan, energy usage will have an insignificant impact on regional systems.

Mitigation: Energy waste can be decreased through a comprehensive program of site design and construction measures.

Cumulative: Due to longer than average trip length to jobs, major shopping and recreation centers, fuel consumption per household for transportation will be above average. The combined effect will be significant when the River Road ADC reaches full development.

Archaeological/Historical

Impact: No impacts on resources are expected.

Mitigation: For undeveloped parcels outside Las Palmas Ranch, an archaeological survey should be undertaken as a part of the environmental review process.

RESPONSE TO COMMENTS

This section presents responses to the written comments received during the referral period of August 16, 1982 to October 1, 1982. Copies of the nine letters and memoranda received on the draft of the Environmental Impact Report are found in Appendix B of this report.

Pursuant to Sections 906 a (2) and 906 b of the Monterey County Guidelines, these letters and memoranda have been reviewed by the Environmental Section of the County Planning Department. The staff indicated to the consultant those comments requiring a response. Also, the notes on the staff's review are reflected in the consultant's response.

MONTEREY COUNTY SHERIFF'S DEPARTMENT

Comment #1: There will be a significant cumulative impact on Sheriff's Department services as a result of development of the several projects in the River Road and Highway 68 areas. Although the Sheriff's Department personnel will not be increased as a result of development of the River Road Area plan, the cumulative impact from overall growth may necessitate additional personnel.

Response: Assuming the statistics given in the letter to support the magnitude of the cumulative impact are applicable to this projected low crime area, the cumulative effect from full development would, in fact, be significant.

Comment #2: Several specific protection and crime prevention measures were offered for consideration.

Response: The suggested additional specific crime prevention measures are acknowledged and should be considered during the specific design/development stage.

MONTEREY COUNTY PUBLIC WORKS DEPARTMENT

Comment #3: The report incorrectly implies that our department established the volume of 900 vehicles per hour for level of service C. The remainder of the sentence after "capacity for a two lane highway" can be omitted.

Response: See (1) on Errata Sheet.

Comment #4: The 1980 volume on Highway 68 was 16,800 vehicles per day. The 1981 volume was 16,700 vehicles per day.

Response: See (2) on Errata Sheet.

Comment #5: Funding for a Toro Park interchange has been included in the State Transportation Improvement Program.

Response: See (3) on Errata Sheet.

Comment #6: Volumes on local roads should be compared to service volumes for Level of Service C, not to capacity volumes.

Response: The comment is in reference to the general statment on Page 66, paragraph 3, regarding traffic on local streets in the vicinity of the Las Palmas Ranch. Generally speaking, the current daily volumes are at or better than LOS C. See Response to Comment #7 regarding LOS on River Road.

Comment #7: Page 67 - our review of the Las Palmas Ranch Traffic Study recommended that a traffic generation rate of 8.0 trips per day per unit be used for single family dwelling units. Experience suggests no change. The traffic estimates of this draft are therefore somewhat low and are discussed on Page 73.

Response: No response is necessary.

Comment #8: Page 70 - The report compares projected traffic volumes to roadway capacities for River Road and for the four lane section of Highway 68. Projected volumes should be compared to service volumes for Level of Service C to determine if level C will be maintained. Furthermore, regardless of whether or not level C can be maintained on Highway 68 east of River Road, this has no bearing on whether or not improvements would be required on the two lane portion west of River Road. The report is incomplete.

Response: Wilsey and Ham, authors of the traffic study, recently estimated that the service volume for LOS C on River Road is in a range of 10,000 to 12,000 vehicles per day (vpd) depending on the specific location. The average daily traffic on River Road for October, 1980 (Exhibit 2.8, Page 65) ranged between 2,500 and 3,340, which is well below the service volume for LOS C.

The projected 1995 traffic volume on River Road with the ADC Policy Plan is about 19,700 vpd. This is nearly twice the service volume for LOS C, indicating the levels D and E discussed on Page 70, paragraph 3. Las Palmas would account for about two-thirds of the total volume.

The projected 1995 traffic volume on River Road with the Existing Policy Plan is 12,400 vpd which is somewhat above the low end of the service volume range for LOS C (10,000 vpd), indicating the need for the improvements proposed on Page 74.

Additional specific improvements beyond those listed on Page 74 may be required, but can be more readily determined during the specific design/development stage for the alternative plan selected.

Wilsey and Ham estimates that the service volumes of LOS C on Highway 68 east of River Road on the four lane section to be in the range of 45,000 to 50,000 vpd; to the west on the two lane section the range is 13,000 to 15,000 vpd. CALTRANS generally agreed with these estimates in a discussion on October 26, 1982. They consider the current LOS on the two lane section to be between D and E where the current volume is about 16,700 vpd.

The above indicates that the 1995 projection (with the ADC Policy Plan) for the four lane section of Highway 68 of 41,900 ADT (Page 7) is within the service volume for LOS C. Since the Existing Policy Plan would generate far less traffic, LOS C could be maintained well beyond 1995. However, River Road ramp improvements would be needed in either case.

Although either alternative plan for Las Palmas Ranch would account for a small percentage of the projected traffic on the two lane section of Highway 68 west of River Road, the cumulative effect from full development of the Toro Area would cause a LOS of E or F.

Comment #9: The report presents no basis to indicate that ramp levels of service would improve by one level with the Existing Policy Plan compared to the ADC Policy Plan.

Response: The basis is simply that the Existing Policy Plan by itself would generate 6,700 average daily traffic on River Road whereas the ADC Policy Plan by itself would generate over 14,000 ADT.

Comment #10: Page 73 - In responding to our department's second concern (dated October 28, 1981) the report states, ". . . Level of Service C is attained in very few urban settings . . .", and "Level of Service D for a freeway on-ramp during short periods is not unusual in an urban setting . . .". Our department has serious concerns regarding these responses. First, neither Highway 68 nor River Road meet the definition of urban arterials and therefore must be analyzed as rural roads. Second, urban and rural roads are evaluated by different sets of standards. Third, the Monterey County Transportation Plan's goal of level of service C applies to all area roads.

Response: The very definition of an ADC (formerly referred to as an Area of Urban Development Concentration) connotes an urban setting: In the case of the River Road ADC, the traffic on River Road with the ADC Policy Plan would approach 20,000 vpd and about 42,000 vpd on Highway 68. These high volumes typically are not associated with rural road conditions. Signalization and speed limits, which are also a part of the criteria in defining an urban arterial, may also be required by 1995.

Comment #11: Mitigation Measure 1.a. and b. - The limits of the four lane section, being based on projected traffic volumes and levels of service, should be more closely examined.

Response: No response indicated other than to note that the greater level of detail suggested will accompany the environmental review at the project specific design stage.

Comment #12: Mitigation Measure 1.d. - Left turn channelization at the Highway 68 on-ramps (not off-ramps), may be beneficial. However, have the geometrics been reviewed to determine what work will be required to make them fit.

Response: See (4) on Errata Sheet and response to Comment #1.

Comment #13: Mitigation Measure 2.a. - Level of service analysis must be made based on this premise to determine what improvements would be required.

Response: See response to Comment #8.

Comment #14: Mitigation Measure 3. - These cannot be considered mitigation of this project unless the developers of the project (or at least entities other than the general public) propose to construct these improvements.

Response: No response is necessary.

Comment #15: Mitigation Measure 4. - The County does not construct State highways. The Cities of Monterey and Del Rey Oaks are also involved. The first sentence represents a true mitigating measure for this project and should be given serious consideration.

Response: Public funds build highways, whatever the level of government. Given the present budget constraints, greater attention should be given to "user fees" based on zones of benefit.

MONTEREY COUNTY HEALTH DEPARTMENT

Comment #16: Eleven design features and operating practices for the liquid waste treatment facilities were offered.

Response: No response is necessary other than the fact that the list should be considered during the specific design/development stage.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

Comment #17: The draft EIR gives no specific details on the system, which would have to be submitted to the Regional Board. Approval of the sewage system would have to be granted by the Regional Board in the form

of Waste Discharge Requirements prior to any development. Such requirements could be considered only after details of the collection, treatment, and disposal systems had been submitted along with a completed Report of Waste Discharge.

Response: "The Wastewater Management Study" for Las Palmas Ranch, by Engineering Science, which is listed among the References (Section 4, Page 113), is available from the Monterey County Planning Department. Additional details required in applying for Waste Discharge Requirements will be provided during the specific design/development stage.

MONTEREY-SALINAS TRANSIT

Comment #18: As development continues along River Road, the County should require construction and maintenance of a Park-and-Ride, Kiss-and-Ride facility at the intersection of Highway 68. This facility would assist ride sharing and transit usage.

Response: The suggestion has merit particularly in mitigating the projected traffic congestion should the ADC Policy Plan be approved. In lieu of financial participation by Las Palmas in establishing the facility at the River Road/ Highway 68 intersection, the Las Palmas ADC Plan could include a site reserved for the parking facility.

STATE CLEARINGHOUSE TRANSMITTAL LETTER

Enclosure #1 - California Department of Fish and Game:

Comment #19: The department concurs with the recommendation on Page 56 for managing open space. The mitigations concerning the protection of mature valley oaks should be reviewed and approved by experts in range ecology and implemented concurrently with the first phase of development.

Response: See Mitigation Measures, Page 54 and 56. Mitigation Measure #3 should include review of the open space management program by the Department of Fish and Game prior to approval by the County.

Enclosure #2 - California Regional Water Quality Control Board:

(This letter is a duplicate of the one sent directly from the Control Board. See Response to Comment #17 above.)

LETTER FROM SHARON C. HELLER

Comment #20: Information in the report is poorly segregated, particularly as it relates to the impacts of the two alternative plans for Las Palmas Ranch.

Response: To segregate and isolate the impacts of each Plan would have defeated the basic requirement of providing a comparative analysis throughout the report. Admittedly, it is not light reading and requires careful study.

Since no specific comments were provided, no additional response is indicated other than to refer the reader to Section 1.3.1.2, pages 17-25 wherein the two alternative plans were treated separately.

LETTER FROM CLARA SARGENTI

Comment #21: It appears to me that the Draft Report is limited to the Las Palmas project. I believe that there should be further discussion on the needs of the entire River Road area. A specific point I'd like to address is the anticipated water use. Will not the water to the Castroville area be intercepted?

Response: The cumulative effects/mitigation of full development within the area are discussed throughout the report as well as in Section 3.1 Cumulative Impacts, pages 106 to 109.

The Environmental Impact Report for the Arroyo Seco Dam project is being prepared and will address the issue of water for the Castroville area. The Arroyo Seco Dam Feasibility Study, Chapter V-11, Final Report, by CH2M Hill, April 1982, indicates that the amount of water intercepted will not significantly affect water to be transported to the Castroville area.

SECOND LETTER OF TRANSMITTAL FROM THE STATE CLEARINGHOUSE

Enclosure #1 - California Department of Transportation:

Comment #22: Section 2.7 Traffic should have a discussion of the strategies of Transportation Systems Management including impacts of development on the Monterey-Salinas Transit line that serves Highway 68, and any necessary mitigation such as ridesharing and park and ride lot locations.

Response: In a subsequent discussion, the A-95 Coordinator for the agency stated that their main concern is the impact/mitigation relating to transit service. Therefore, please refer to the response to Comment #14 above from the Monterey-Salinas Transit.

Comment #23: Mitigation measures on Page 74 should include: Improvement of ramps at Route 58 and River Road will be required to accommodate peak hour traffic volumes resulting from the proposals.

Response: See Response to Comment #8, Page R-3, paragraph 3.

Comment #24: It should be mentioned that where improvements to Highway 68 are required, an Encroachment Permit must be obtained from CALTRANS before work can be done within State right-of-way.

Response: The existing Encroachment Permit process, like local government's total permit process, can control mitigation to some degree during the specific design/development stage.

COUNTY PLANNING STAFF SUGGESTED CHANGES/CORRECTIONS SUBMITTED WITH RECOMMENDATION FOR CERTIFICATION ON 12/7/82

The following comments were received by the Board of Supervisors at the Certification Hearing on December 7, 1982: They have been included at the end of Appendix B of this Report.

Comment #25: Add the letters 'M' and 'N' to Table 1.2 on page 13 to reflect their inclusion on Exhibit 1.4 on page 10.

Response: A footnote at the bottom of Table 1.2 is hereby added to clarify that the acreage for areas 'M' and 'N' on Exhibit 1.4 is included in the total Open Space acreage.

Comment #26: The "dispersed park sites" described in the text at the bottom of page 11 and top of page 12 should be added to Exhibits 1.3 (page 9) and 1.4 (page 10) as appropriate.

Response: The precise location and design of the "dispersed park sites", like the residential lots, will be determined during the specific design/development stage. Exhibit 1.4 (ADC Policy Plan) does show the conceptual configuration of these parks.

Comment #27: Change all EIR references to "proposed" River Road ADC Criteria to read adopted River Road ADC Criteria, see page 21, 1st sentence of last paragraph for an example.

Response: It is acknowledged that the Board of Supervisors took action in setting forth the criteria (see 1.3.1.2, page 17). The criteria was part of the Board's action initiating a general plan amendment to define the River Road area as an ADC. Therefore, the River Road ADC, together with the criteria, is the alternative Proposed "project" for purposes of the EIR. If the ADC is not adopted, neither is the criteria.

Comment #28: Change number 2 under "public works" page 23 to read "The new streets for Las Palmas would be built by developers and may be dedicated to the County as completed.

Response: See (5) on Errata Sheet.

Comment #29: Add the following sentence to mitigation measure number 2 on page 54. "This program should take the form of an overall Las Palmas Ranch open space environmental management plan to be developed and be approved by the County before first development occurs."

Response: The suggestion is included in mitigation measure 3 on page 56 and by reference is hereby added to mitigation measure number 2 on page 54.

MEMORANDUM FROM TORO ADVISORY COMMITTEE - DATE 12/7/82

Receipt of these comments was acknowledged by the Board of Supervisors at the Certification Hearing on December 7, 1982. They have been included at the end of Appendix B of this report.

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APPENDICES

EXHIBITS

TABLES

1.0 INTRODUCTION

1.1 AUTHORIZATION AND PURPOSE

Authorization

On October 23, 1979, the Monterey County Board of Supervisors authorized the preparation of a Specific Plan for the Las Palmas Ranch in accordance with State Planning Law and local ordinance requirements. Preparation of an Environmental Impact Report (EIR) for the Specific Plan was also authorized on that date in keeping with the California Environmental Quality Act (CEQA).

On May 13, 1980, the Monterey County Board of Supervisors contracted with Grunwald, Crawford & Associates to prepare the above referenced Specific Plan and EIR.

On November 18, 1980, the Monterey County Board of Supervisors initiated a proposed General Plan Amendment establishing the River Road Area of Development Concentration (ADC).

On April 14, 1981, the Monterey County Board of Supervisors amended the above referenced contract with Grunwald, Crawford & Associates to include in the above referenced EIR an environmental analysis of a 1578 unit development plan[1] (proposed by the Las Palmas Ranch Partnership, the owners) as it conforms to the ADC concept.

On July 21, 1981, the Monterey County Board of Supervisors ordered the preparation of a focused EIR for the proposed River Road Area of Development Concentration.

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(1) "Las Palmas Ranch Development Plan and Environmental Impact Study", and amendments prepared by Alden W. Barstad & Associates, Inc.

On November 3, 1981, the Monterey County Board of Supervisors amended the above referenced contract with Grunwald, Crawford & Associates to include preparation of the focused EIR for the proposed River Road Area of Development Concentration.

Purpose

This EIR has been prepared pursuant to the requirements outlined in the Monterey County CEQA Guidelines, Sections 704, 705 and 906. It discusses the impacts of the projects, suggests measures to reduce or alleviate identified concerns and is provided solely to assist in project evaluation.

Public Resources Code Section 6543(b) provides that in the absence of substantial change in the project, the EIR certified for this ADC will serve as a "master" EIR for all residential development.

As a result of Monterey County staff input, the Initial Study, the Notice of Preparation, and the consultant's environmental review, the following areas of impact are included in the EIR:

1. Traffic and Circulation.
2. Geology and Soils (including prime ag land).
3. Air Quality.
4. Vegetation and Wildlife.
5. Hydrology (surface hydrology, urban drainage, groundwater).
6. Archaeological/Historical Resources.
7. Aesthetic Considerations (visual, noise, odor).
8. Energy Conservation.
9. Public Services and Utilities (Sewer, Water, Schools, Fire Protection, Police Protection, Public Utilities, Solid Waste).
10. Economic Considerations.
11. Growth Inducing Impacts.
12. Cumulative Impacts.

The Initial Study is included as Appendix "A".

1.2 PROJECT DESCRIPTION

This EIR addresses the proposed River Road Area of Development Concentration (ADC) as the overlying project with two alternative specific plans considered

for the Las Palmas Ranch portion of the ADC area. The Ranch is the only significantly large ownership within the ADC area that is not already committed to development other than agriculture.

The proposed Las Palmas Ranch Specific Plan prepared by the consultant and based on existing general plan policies is referred to throughout this EIR as the Existing Policy Plan. The Las Palmas Ranch Specific Plan prepared by the owners of the Ranch and based on the County's adopted criteria for proposed new "areas of development concentration" is referred to throughout this EIR as the ADC Policy Plan.

1.2.1 Location

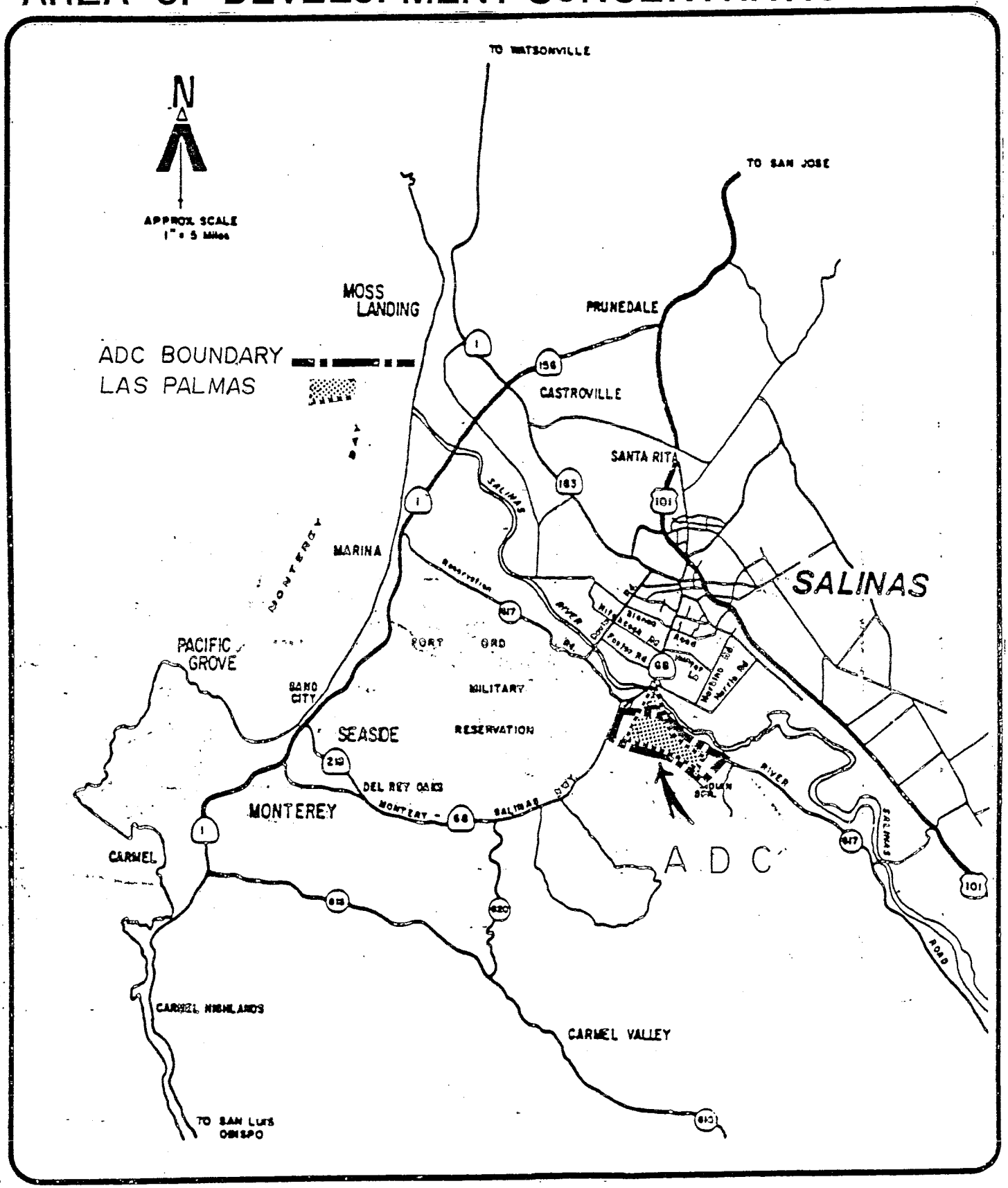
The designated boundaries of the proposed River Road ADC are River Road, State Highway 68, Toro Regional Park and Pine Canyon Road. Exhibit 1.1 shows these boundaries within the regional setting. Exhibit 1.2 depicts the portion of the Las Palmas Ranch that is within the proposed River Road ADC.

The Las Palmas Ranch portion in the ADC comprises 1,523 acres fronting on River Road approximately one-half mile south of its intersection with State Highway 68. It is also known as the Violini Ranch, APN 139-011-5 and 139-012-2, 4, 5, 6, 7, 8, and 10. The City of Salinas is approximately three miles north; the Monterey Penninsula area is approximately ten miles west. The Fort Ord Military Reservation is northwest of the Ranch across Highway 68. To the southeast is developing residential property and the rugged hills of the Sierra de Salinas. The Ranch is bounded on the north by River Road, agriculture land and the Salinas River. On the western border, separating Las Palmas from Highway 68, is the former Ferrini Ranch for which the Toro Vista Specific Plan and supplemental EIR were recently prepared.

The southwestern boundary of the Ranch fronts on undeveloped mountainous range-

REGIONAL SETTING OF THE RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION

EXHIBIT 1.1



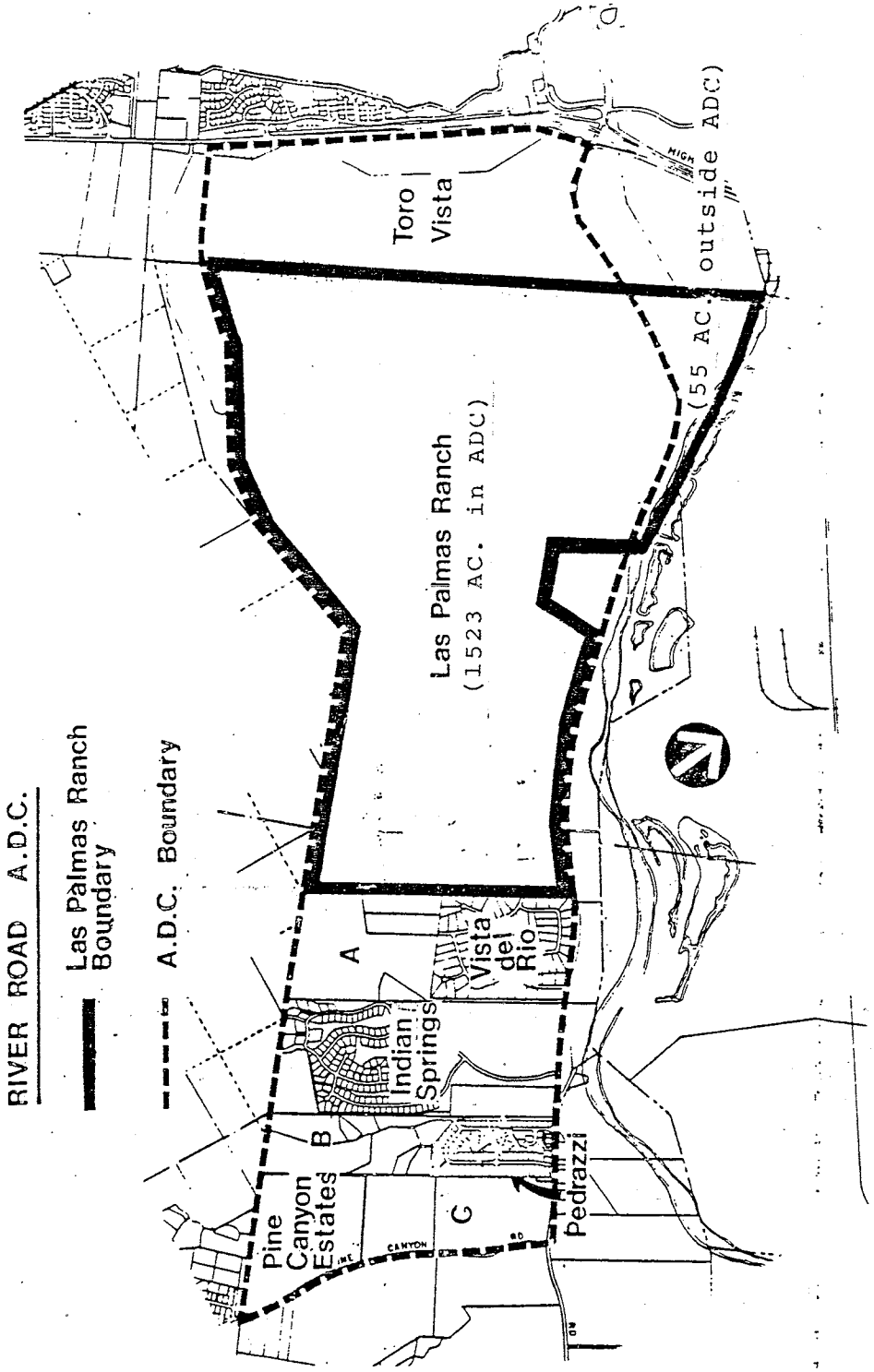
LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

GRUNWALD CRAWFORD ASSOCIATES

RIVER ROAD
AREA OF DEVELOPMENT CONCENTRATION

EXHIBIT 1.2



LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

GRUNWALD CRAWFORD ASSOCIATES

land and the Toro Regional Park. The southeastern boundary is adjacent to Vista Del Rio, a residential development consisting of 80 one-acre lots. Other perties to the southeast are the Indian Springs Ranch Subdivision and the Pedrazzi subdivision..

1.2.2 Project Objectives

The objective of the proposed project is to develop the Las Palmas Ranch with a mixture of residential units and support facilities in keeping with either the land use policies of the existing general plan or the criteria/policies for an Area of Development Concentration as set forth in the County's Growth Management Policy.

1.2.3 Characteristics of the Project

1.2.3.1 Background

The history of the area, known as the Buena Vista area, is documented back to 1795 when the first known occupants in the area were Jose Maria Soberanes and his father-in-law, Joaquin Castro. A land dispute arose, with ownership claimed by Father Vinals of Mission San Carlos; the family lost the land in 1802.

About 1822 then Governor Sola gave the land grant to Santiago and Jose Mariano Estrada, who reportedly built an adobe which had a long history as an arsenal, fiesta hall and school. Crumbling remains of the adobe are still visible on the east end of the Las Palmas Ranch.

In 1872 Hiram Corey leased 7,725 acres of the Buena Vista Ranch and established a stock ranch, purchasing the land in 1883. In 1889 he sold the ranch, but repurchased 1,620 acres on the Salinas River to make his home in picturesque surroundings, now known as the Las Palmas Ranch. In 1891 he built a residence of grand architectural proportions and it was one of the show places of the county. This house remains as a residence for the Violini family on the Ranch.

1.2.3.2 Existing and Approved Improvements

Existing improvements, and approved subdivisions in various stages of development, that are located in the proposed River Road ADC are shown in Exhibit 1.2. Also shown is that portion of the Toro Vista Specific Plan which is within the ADC. The existing and approved developments located in the ADC total 752 acres and consist of 676 residential units. Table 1.1 describes these projects.

The most prominent feature on the Las Palmas Ranch is the old Victorian ranch house built by Hiram Corey and referred to as the Corey House. It has been partly restored and is to remain as part of the future development. There is also a smaller farmhouse and barn at the eastern edge of the Ranch. About 88 acres are cultivated for row crops, of which 55 acres lie north of River Road (outside of the proposed ADC) and 33 acres south of River Road. The remainder of the site, other than that for dirt roads and fencing, has been used for grazing.

1.2.3.3 Proposed Improvements for the Las Palmas Ranch

The Las Palmas Ranch with 1578 acres contains about 90% of the undeveloped open space in the proposed ADC.

Both the Existing Policy Plan and the ADC Policy Plan reports are incorporated here by reference as part of this EIR.

The overall development concepts for the Existing Policy Plan and the ADC Policy Plan as shown in Exhibits 1.3 and 1.4 respectively, are very similar in terms of types of uses, circulation systems, areas of development and service facilities. The primary difference is residential densities. The Existing Policy Plan provides for 720 residential units while the ADC Policy Plan shows 1578.

The following describes general features and concepts common to both plans:

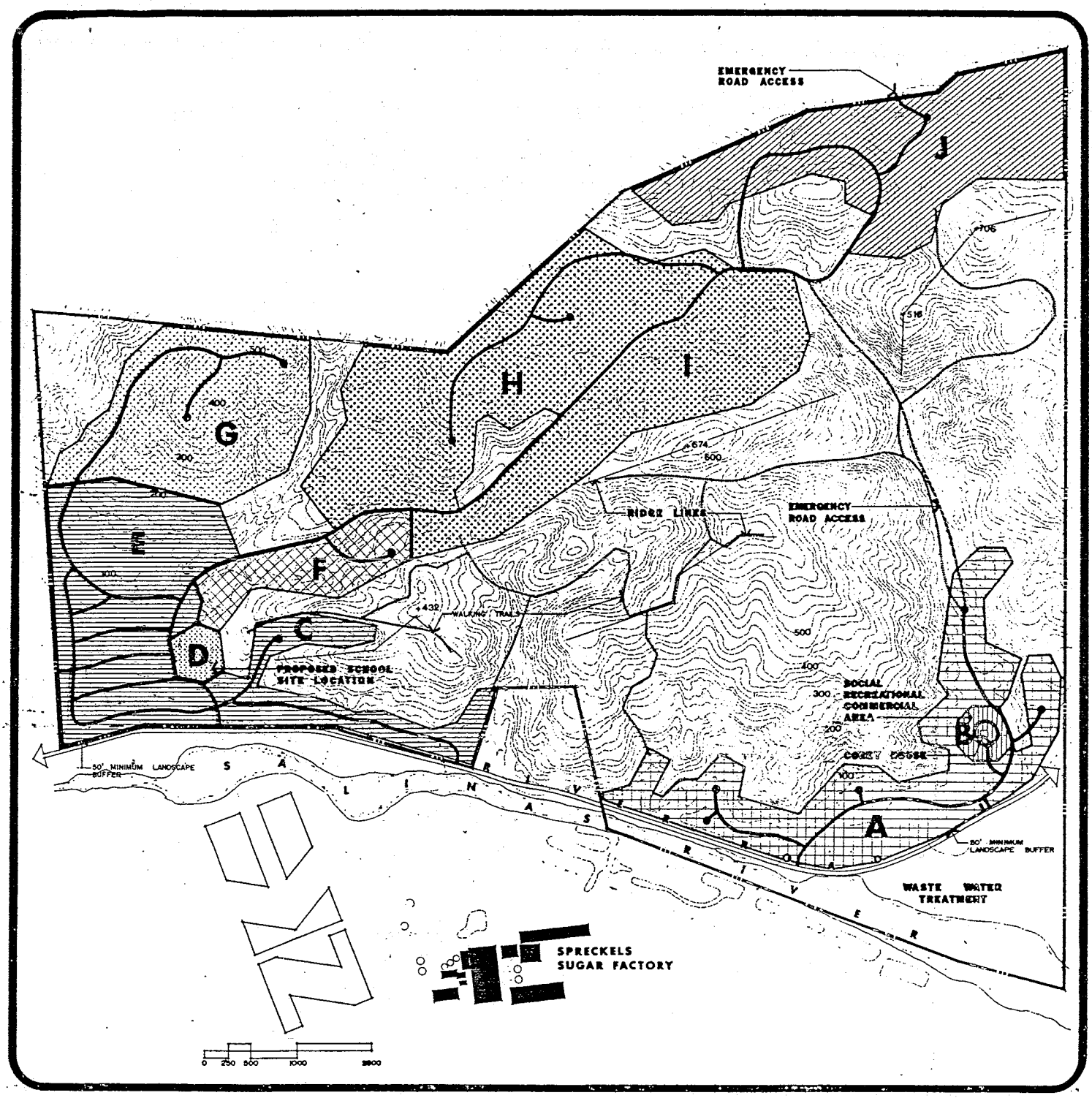
TABLE 1.1

PROPERTIES WITHIN THE
RIVER ROAD ADC

Property	Acres	Units
Las Palmas Ranch	1,523	1,578 - 720
Toro Vista (approved)	336	324
Vista Del Rio (approved)	93.7	80
Pine Canyon Estates (approved)	88	60
Pedrazzi Subdivision (existing)	47	94
Indian Springs (approved/partially built)	187	150
Parcel "A"	105	105*
Parcel "B" (approved)	72	20
Parcel "C" (to be ag)	77	-
Total	2,538.7	2,411 - 1,553

* 1 unit/acre per River Road ADC

EXHIBIT 1.3



EXISTING POLICY PLAN

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

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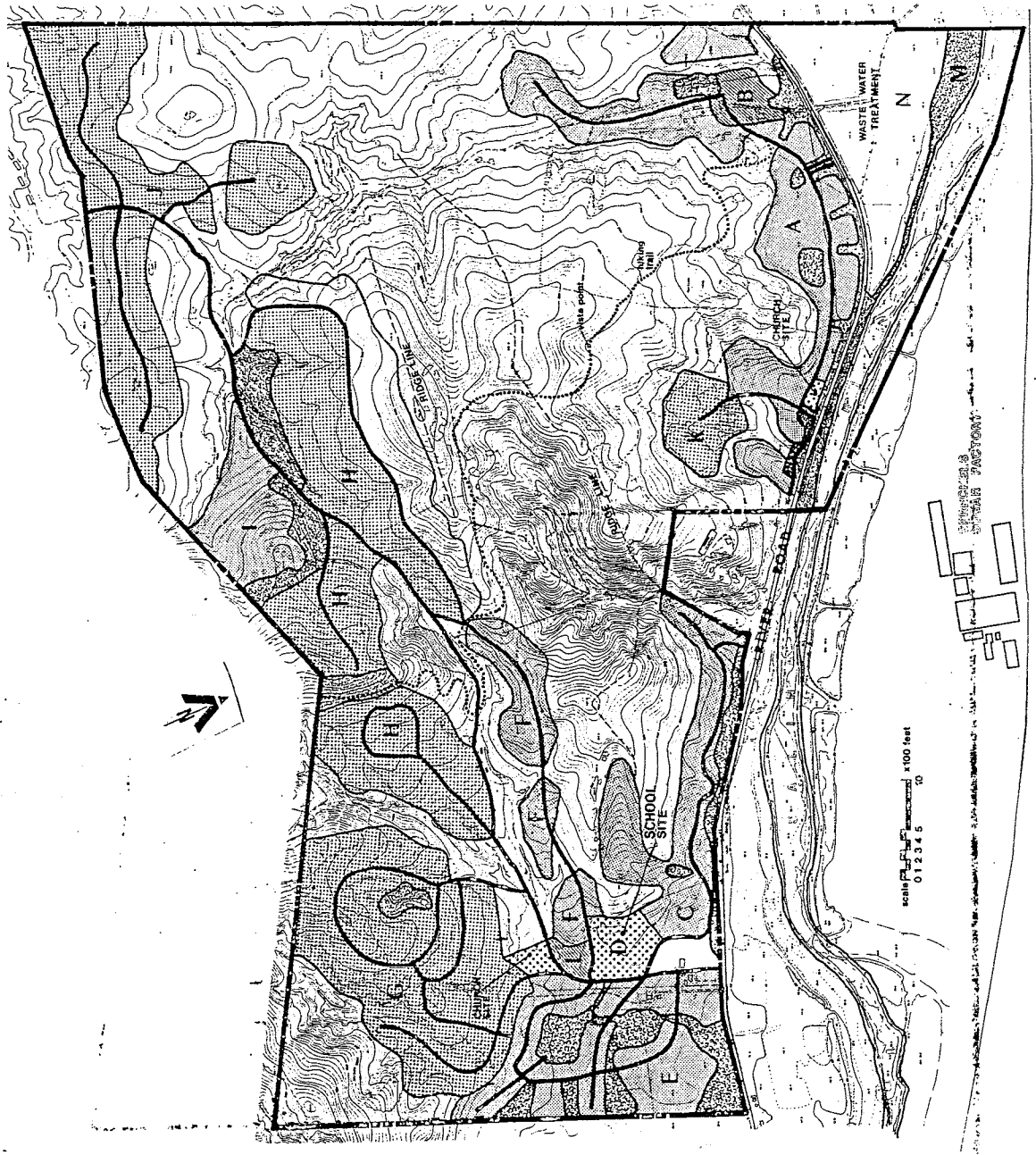

A.D.C. POLICY PLAN

LEGEND

- LOW DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- QUASI-PUBLIC
- RECREATIONAL COMMERCIAL
- PARKS / RIPARIAN

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

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1. Las Palmas Ranch would be developed as a planned community with a mixture of residential densities and supportive recreational facilities.

2. A combination of multi-family dwellings are shown near major entrances on the lowest slopes.

3. Residential lots for detached single-family units are planned for the low lying and moderate/mid elevation slopes.

4. Building sites of one acre or more are shown on the moderate/mid elevation slopes.

5. The land lying north of River Road and within the 100 year flood plain is designated agricultural. Approximately 30 acres surrounding the Corey house, which has been farmed in the past, are proposed for development.

6. As a planned community development, the plans take advantage of the clustering and density transfer concepts inherent within the planned development approach. Clustered multi-family and single family housing areas have been shown at much higher densities than the general one-acre minimum parcel size limitations of the majority of the underlying zoning. More than 50% of the site in both plans is for non-residential open use.

7. Both show a commercial area in the vicinity of the Corey House as a part of the recreation complex serving the residents of Las Palmas.

8. Recreation would be provided through conversion of the Corey House to a social use complex. Surrounding the Corey House would be additional sports activities including swimming and tennis. Several dispersed

park sites, the large area set aside in open space, and the abutting Toro Regional Park, will provide recreational opportunities.

9. Four access roads onto River Road are planned: one at the entrance to the Corey House, two near the mid-point of the property, and the fourth approximately one mile farther east on River Road. The internal road systems are to follow natural contours to the extent possible.

10. The greatest densities have been proposed in 0-10% slope areas that have ready access to River Road. On more steeply sloping properties (10-30%) larger lot building sites are shown. Generally, open space is the predominant use on slopes greater than 30%.

11. Visual impact upon the Salinas Valley and Highway 68 is to be minimized through landscape screening and by developing in areas screened from view by the natural contours of the land.

12. A master landscaping plan is proposed to include visual screening along River Road and internal landscaping within the clustered residential areas. The large area set aside as open space will act to conserve the natural grassland and tree growth.

13. The major circulation system would be unobtrusive for the most part, by keeping it in the lower, least visable areas of the canyon floors, thus minimizing the need for exterior cuts and fills and hillside disruption.

14. In applying the same suggested suitability/capability approach, both plans utilize nearly the same development areas. However, the Existing Policy Plan designates certain of the areas as "optional" because not as much land area is needed.

Table 1.2 shows a comparison between the Existing Policy Plan and the ADC Policy Plan in terms of types of units and acreage.

TABLE 1.2

LAND USE BY ACRES

EXISTING POLICY PLAN

Area	Acres	Housing Units	Housing Units/Acre
A	94	350	3.7
B	6.5	-	-
C	67	66	1.0
D	10	-	-
E	108	150	1.4
F	39	40	1.0
G	67	34	0.5
H	126	50	0.4
I	94	optional	-
J	90	30	0.3
Subtotal	701.5 (44.5%)	720	1.03
Open Space	876.5 (55.5%)	-	-
Total	1578.0	720	0.46

ADC POLICY PLAN

Area	Acres	Housing Units	Housing Units/Acre
A	104	495	4.76
B	6	Commercial/Recreation	-
C	62	244	3.94
D	15	School and Church	-
E	76	171	2.25
F	35	200	5.71
G	95	128	1.35
H	152	156	1.02
I	28	136	4.86
J	90	43	0.48
K	11	5	0.45
L	3	Commercial	-
Subtotal	677 (42.9%)	1578	2.33
Open Space	901 (57.1%)	-	-
Total	1578	1578	1.00

1.2.3.4 Vicinity and Neighboring Land Use

Three subdivisions lie to the northwest of the proposed ADC, on the opposite side of Highway 68 - Toro Park Estates, Serra Village, and Creekside. These include single family detached residences and townhouses, and a small neighborhood shopping center. Fort Ord is located to the west of these three subdivisions.

The Salinas River is located north of the proposed ADC beyond which lies the City of Salinas. The area between the City limits and the River consists of a 2-mile wide belt of agricultural land. River Road separates a narrow band of farmland south of the Salinas River from the area proposed for development.

The large St. Johns College parcel and the Toro Regional Park, which are immediately southwest of the proposed ADC, are presently in open space and used for hiking, picnicking and group camping; on the east is livestock grazing land; and to the southeast is the Alta Vista Subdivision.

1.3 GENERAL PLAN AND ZONING

1.3.1 Planning Policy Analysis

1.3.1.1 Consistency With Existing Policies

A basic requirement in the work program for the preparation of the Specific Plan for the Las Palmas Ranch (Existing Policy Plan) was that the plan must be consistent with existing general plan policies. Therefore, an extensive analysis of Monterey County's planning policies (and zoning) affecting the Las Palmas area was conducted. The results were published in September, 1980, in the report titled "Las Palmas Basic Determinants For Plan Preparation". That report was reviewed at a citizens' meeting and with the County Planning Commission, and

found to be complete in accordance with the program(1). It is incorporated here by reference.

The following are the major policy related documents analyzed:

Toro Area Master Plan
Monterey County General Plan
Monterey County Growth Management Policy
State Office of Planning and Research's conditions for General Plan update time extension
Monterey County Board of Supervisors' finding of plan consistency.

The summary of findings, conclusions and recommendations from the study, which guided the preparation of the proposed Existing Policy Plan are contained in Section V of the "Basic Determinants Report". For ease of reference and because the major issue is the number of residential units to be allowed, the recommendations from the report are repeated here:

"1. The number of units indicated for Las Palmas based on an analysis of the Toro Area Master Plan is in a range of 343-535. If these numbers constitute 85% of the total project for purposes of providing 15% for low and moderate income housing, then the range increases to 404-629.

2. Given the environmentally related policies expressed in the Toro Area Master Plan and as more specificially stated in other elements of the General Plan and in deliberations by the County Board of Supervisors regarding Las Palmas, the holding capacity (about 720 units) identified by the capability/suitability analysis should be used as an additional criteria in arriving at the number of units considered to be within the realm of consistency. Since this number is based on environmental considerations, the 15% for low and moderate income housing is included.

3. In order to be consistent and to meet the objectives of the applicant, to extent possible, the highest possible range indicated by recommendations No.'s 1 and 2 above is approximately 630-720. This range includes provision of 15% for low and moderate income housing. This 14% spread is not considered to be significant given the overall size and topography of Las Palmas, and the fact that over 55% of the total ownership would remain in open space even when using the high end of the range.

4. Therefore, it is reasonable to conclude that any number in the above range falls within the realm of consistency insofar as the stated and implied intent of the Toro Area Master Plan as presently interpreted and in consideration of OPR's conditions for General Plan revision extension."

(1) Planning Staff memo to Consultant dated January 2, 1981.

There are two land use proposals on the Existing Policy Plan which do not appear on the Toro Area Master Plan diagram: 1) use of approximately 33 acres of agricultural land for residential development, and 2) a proposed small commercial area in the vicinity of the Corey House.

The 33 acre parcel, located in Area A on the Plan, is bordered on the north by River Road and on the south by foothills. It has been farmed in row crops, most recently in onions. The Toro Area Master Plan designates the area as Range Land/Agriculture with a residential density range of 3-5 acres/unit. The proposed overall average density in Area A is 3.7 units/acre.

The major issue is the consistency with the County's policy of preserving prime and productive agricultural land in the Salinas Valley. Whether or not the loss of this particular parcel for farming is inconsistent is a matter of policy interpretation by the Board of Supervisors. The author's rationale for showing residential development on the parcel is presented in the Existing Policy Plan report.

The author's rationale for designating Area "B" (6.5 acres) surrounding the Corey House for social, recreational and limited commercial use by the Las Palmas residents is also presented in the Existing Policy Plan report.

The proposed Existing Policy Plan appears to be generally consistent with the County's existing development policies. However, the consistency of the commercial use is a policy matter subject to Board determination.

The ADC Policy Plan is not consistent with existing development policies, particularly in terms of number of units (1578) and the proposal for a three acre commercial center near the east end of the Ranch in addition to the complex surrounding the Corey House. Determination of consistency of the ADC Policy Plan in the use of farmland for housing (33 acres) and sewage facilities (52

acres) is a matter of interpretation by the Board of Supervisors who found the plan to be conceptually consistent.

1.3.1.2 Consistency With ADC Criteria

On July 21, 1981, the Monterey County Board of Supervisors initiated a general plan amendment to define the River Road area as an area of development concentration with the following proposed criteria:

1. Existing or approved development within the River Road ADC shall be maintained or developed in accordance with existing or approved tentative or final subdivision maps, use permits or specific plans.

2. The basic residential density for new major subdivision development within the River Road ADC shall be one unit per gross acre except where topography, physical constraints or other factors would preclude this density. Development including septic systems shall not be allowed on slopes over 30%. Condominiums, town houses, zero lot line houses, and other forms of clustered or multifamily housing, shall be considered within this basic density where adequate utilities are abailable; and shall be encouraged where such development will help to protect public viewsheds, natural resources or prime agricultural lands, or will facilitate providing housing for families of low or moderate income.

3. Prime or productive agricultural lands shall be preserved and protected, where feasible.

4. New residential subdivisions within River Road ADC shall provide at least 15% of their units for families of low or moderate income.

5. New development within the River Road ADC shall be served by a public

utility water system or an incorporated mutual water company providing domestic and fire flows in accordance with all requirements of state and county environmental health agencies.

6. New residential subdivisions within the River Road ADC on lots of less than one acre shall be served by a community sewage treatment facility meeting all requirements of state and county environmental health agencies, and either owned or operated by a public agency or district.

7. Adequate police and fire protection shall be available at the time of development.

8. Appropriate school sites shall be provided.

9. In order to mitigate adverse impacts on significant view shed areas, the following standards shall be applied to new development within the River Road ADC:

   a. Ridge top development shall be prohibited.

   b. Low level exterior lighting, including streetlights, shall be utilized consistent with maintenance and public safety requirements.

   c. Roads which are perpendicular to viewing areas or which involve excessive cut or fill shall be discouraged.

   d. Visually obtrusive building materials and finishes shall be avoided.

   e. Higher density housing units shall be clustered behind natural land forms or be visually compatible and unobtrusive.

   f. Utilize mounding, informal massing or irregularly spaced trees, planting, and other overall landscaping treatment to screen development.

g. Preserve vegetation significant to maintaining visual quality and to provide erosion control on sensitive slopes.

10. Erosion, siltation and drainage controls shall be implemented in order to enhance watershed management, to protect on-site and riparian vegetation, to maximize retention and percolation or surface water on-site and minimize hazards to development.

11. An irregular or meandering landscaped setback, with a minimum depth of 50', shall be established along the frontage of River Road.

12. Provide centrally located commercial facilities appropriate to meet the convenience needs of residents of the River Road ADC. Such facilities shall be developed under "Planned Commercial" or similar zoning which regulates uses, design and signing.

13. New residential subdivisions within the River Road ADC shall provide usable open space and recreational facilities for the residents of the subdivision.

14. Significant archaeological and historical sites shall be preserved and protected as cultural resources.

On November 3, 1981, the Board of Supervisors passed and adopted Resolution No. 81-546 amending the Monterey County General Plan by adopting the following definition of areas of developing concentration:

ESTABLISHMENT OF NEW AREAS OF DEVELOPMENT CONCENTRATION

New areas of development concentration shall, where appropriate, be encouraged if they can be shown to better achieve other aspects of growth management such as the preservation of prime agricultural lands or the protection of other natural resources. They shall provide urban services to the residences such as provision of water, sewage, roads, commercial facilities, schools and fire protection. Developments of this type should be proposed as Specific Plan amendments to the the General Plan.

The following criteria shall be used for the purposes of identifying any new "areas of development concentration" as that term is used in the Monterey County Growth Management Policy.

a) The area is not contiguous with existing urban concentations, but is in reasonably close proximity to an existing city or other employment center and contains existing semi-rural development.

b) The area has available or provision will be made for appropriate levels of public services to serve the higher intensity land uses proposed for Areas of Development Concentration.

c) The parcel sizes and ownerships of the undeveloped land within the area lend themselves to orderly higher intensity development rather than piecemeal or sprawl development. Such higher intensity development may be rural, suburban or urban in character, depending upon the natural resources, physical and environmental attributes, economic development and sociocultural development of the particular area.

d) A new area shall not under any circumstances be located where it may adversely impact significant prime or productive agricultural lands.

e) Protection and conservation of the natural resources of the overall planning area, epseically the scenic quality or rural areas and the preservation of prime agricultural land, will be enhanced by concentrating development within the designated area.

Once an area is recommended by the Board of Supervisors for designations as an area of development concentration, a General Plan Amendment shall be prepared. The amendment shall be in the form of a Specific Plan which specifies all intended land uses as well as development criteria. The criteria will recognize the diversity of needs and desires of the local area.

The location of the proposed River Road ADC clearly meets criterion (a) in the above Resolution No. 81-546. Criteria (b) and (c) could be met by the proposed Las Palmas ADC Policy Plan, particularly as it relates to proposed levels of public services.

Whether or not the River Road ADC complies with criterion (d) in the above resolution depends on the interpretation of the word "significant" as it relates to the 33 acres of productive agricultural land located within the Las Palmas Ranch portion of the proposed ADC. Criterion (d) also relates to the 55 acres of productive farmland located between River Road and the Salinas River. This area, which is across the road from the proposed ADC, could be adversely impacted by concentrated development in the River Road area. The possible impacts and ways to mitigate them to less than significant levels are discussed later in this report. Similar to the case of the 33 acres south of River Road, it will require a Board policy decision as to whether or not this 55 acre parcel is significant within the meaning of the above Resolution No. 81-546.

Consistency of the ADC Policy Plan with ADC Criteria

The Development Criteria for the River Road ADC, initiated by the Board of Supervisors, are embodied in the proposed ADC Policy Plan. The table "The Index to Policies Implementing ADC Criteria" shown on Page III-10 of the ADC Policy Plan demonstrates reasonable compliance with the criteria, with one possible exception. The one possible exception is Criterion #3 relating to preservation of agricultural land, where feasible. The feasibility of preserving the 33acres of the Las Palmas Ranch south of River Road that presently is in onions is a matter of interpretation: If the parcel is not considered to be significant agricultural land within the meaning of criterion (d) of the above Resolution No. 81-546, then the issue is the feasibility of continuing to farm this island of agricultural land if the River Road Area of Development Concentration is

approved. Two conditions would appear to make it infeasible:

1. There is a very limited amount of suitable land on Las Palmas Ranch where residential development can be clustered. Consequently, the 33 acres would be far more valuable for housing than for the present row crop operation. Approximately 150 residential units in the ADC Policy Plan are proposed to be concentrated on the parcel.

2. As a farm operation, the parcel would be bounded by River Road within the required 50 foot landscaped buffer (Criterion #11) on the north and by the foothills with medium to high density residential development on the south. Such an isolated, incompatible farm operation would also be fragmented by access roads traversing the 33 acres to connect the foothill residential area with River Road.

If the Board determines that use of the 33 acres for housing is inconsistent with Criterion #3 of the River Road ADC criteria, the housing units on the 33 acres could be redistributed to other areas of the Ranch.

Consistency of the Existing Policy Plan with the ADC Criteria

To the extent possible, the development criteria set forth in the proposed Existing Policy Plan are identical to the proposed criteria for the River Road ADC. Similar criteria were selected for two reasons: It will facilitate the comparative analyses of the alternative plans for Las Palmas Ranch, and secondly the criteria are considered sound specific planning guidelines regardless of differences in density between the two plans.

The Existing Policy Plan demonstrates reasonable compliance with the proposed development criteria, with one possible exception. The possible exception is the same as with the ADC Policy Plan which is the criterion calling for the preservation of agricultural land, where feasible. (The rationale for showing

residential use for the 33 acres of agricultural land near the Corey House is presented in the Existing Policy Plan report.)

1.4 PROJECT ECONOMICS

1.4.1 ADC Policy Plan

In December, 1981, LeBlanc & Company, Economic Planning Consultants of San Francisco, working with various County agencies, prepared a fiscal impact analysis for the ADC Policy Plan.(1) It is incorporated here by reference. The following summarizes major findings from the analysis:

Cost Revenue Per Capita:

1. The present assessed full market value of the Las Palmas Ranch is $4,578,000, yielding $47,020 in property taxes for current (1981-82) fiscal year.

2. The current Monterey County budget indicates that the operating cost for all county services county-wide is $391 per capita compared to operating revenues of $368 per capita.

3. The projected full market value of just the residential development (1578 units) is $173,320,000.

4. The revenues per capita generated from development of the ADC Policy Plan will be slightly in excess of per capita operating cost for county services ($423 vs $391 in 1981 dollars).(2)

5. At full development, the annual property tax yield to Monterey County is projected to be $520,000. The Salinas Rural Fire District would receive $234,000.

---

(1) Draft Fiscal Impacts Analysis for Las Palmas Ranch, LeBlanc & Company, December 1981.

(2) This assumes a relatively high assessed value per unit and a population at full development of 4200 persons.

Fire Protection

1. A new fire station may be needed when the River Road ADC is fully developed. It would cost $250 - $400,000 including land cost, and $300,000 annual operating budget for a three man crew. Capital cost would have to be funded through developer contributions or special assessments. The estimated assessed value of at full development of all potential units in the ADC, including 1578 on Las Palmas would be sufficient to generate the operating funds for the new station.

2. In the interim until full development, the operating budget for the new fire station could be reduced by volunteers, limited hours, special assessment or user fee.

Police Protection

1. At full development of the ADC Policy Plan the area would still be considered a low crime area, thus there would be no substantial increase in the Sheriff's Department costs.

2. At full development of the Toro planning area with a population of 10,000, it is conceivable that five sheriff deputies would be needed to provide 24 hour protection. The yearly operating cost would be $200,000 or $20 per capita.

Public Works

1. In keeping with County policy, Las Palmas Ranch development program includes formation of self supporting special districts for provision of public works construction and operating budgets.

2. The new streets for Las Palmas would be built by developers and dedicated to the County as completed.

3. Street maintenance by the County would be funded by gas tax and in lieu of motor vehicle taxes received from the State.

4. It is assumed that other public works (lighting, sewer system, etc.) will be totally funded through user fees.

The analysis concludes that the ADC Policy Plan should bring about a significantly positive fiscal impact to Monterey County public agencies. This is based on the following: 1) property tax yield generated by development at Las Palmas will be $40 to $50 per capita above the average yield; 2) the projected cost per capita for public services generated by Las Palmas residents will be considerably less than the average per capita county-wide; and 3) the assumption that required public infrastructure on-site and nearby (such as a fire station) will not require participation from the county general fund collections.

1.4.2 Existing Policy Plan

By comparison to the ADC Policy Plan, the existing Policy Plan, with about 46% as many housing units, (720 divided by 1578) will generate a higher per capita tax yield and about the same cost per capita for county services. This is based on the following:

1. The value per residential unit will probably be higher in having to build higher income housing in order to make the lower density project economically feasible.

2. Typically, higher income housing will have a lower population per household.

3. The tax yield per capita from the common open space portion of the Ranch will be higher because the population will be less than half.

4. Even with the lower density plan, a new fire station will apparently be needed when the River Road area is fully developed. Although the higher

value per unit will help make up the difference in generating the total assessed value necessary to support the annual operating cost of the new station, the cost per capita would be considerably higher.

5. With a considerable lower population with the Existing Policy Plan, the River Road area will certainly continue to be a low crime area and will not create a negative fiscal impact on the Sheriff's Department.

6. With less than half the number of daily auto trips, the lower density development should significantly reduce the cost of maintaining local streets and River Road. The gas tax per person and in lieu fees should be more than sufficient to maintain local roads.

7. It is also assumed in the case of the lower density plan that other public work activities (sewer, lighting, etc.) will be totally funded through user fees and thus have no financial impact on County government. However, the cost per unit would be considerably higher because the basic facilities (treatment plant, trunk lines, etc.) would still be required although with lower capacities. With 858 fewer units than the ADC Policy Plan, the economic feasibility of developing and operating a sewer system serving the entire River Road area would appear very questionable.

If the Existing Policy Plan is feasible in terms of marketability, it would have less fiscal impact on the county because of relatively fixed costs per capita but higher revenues per capita. However, the unknown is the marketability given the current housing demand.

2.0 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

2.1 INTRODUCTION

This section describes the environmental setting followed by potential environmental impacts and mitigation measures. For each environmental concern, the existing setting for the Las Palmas Ranch is included with a general description of the setting for the larger River Road ADC. Environmental impacts and mitigation measures for the various components of the project are generally listed first for the Las Palmas Ranch site and then for the larger River Road ADC. Comparative analysis is used where appropriate. The regional setting of the ADC is shown in Exhibit 1.1.

Monterey County requires an environmental resources inventory be prepared for large project proposals detailing the existing setting according to the requirements of the California Environmental Quality Act. Thereby, environmental considerations are involved in project conceptualization and the information can be included in the required Environmental Impact Report which follows plan development. The Las Palmas Ranch Environmental Resources Inventory was prepared by Alden W. Barstad and Associates and accepted as complete by the County in January of 1978. The resources inventory is incorporated here by reference and is summarized according to subject matter in the descriptions of the environmental setting.

In addition, several independent engineering studies relating to the development of Las Palmas were contracted for by the Ranch owners and are on file at the County Planning Department. Certain of these, as identified throughout the report, will be summarized and incorporated by reference in this EIR. Such practice of incorporation by reference is encouraged by the CEQA Guidelines (Code Section 15149) in order to minimize volume without sacrificing comprehension.

2.2 GEOLOGY

SETTING

Topographic relief of Las Palmas Ranch is on the order of 660 feet rising from 40 feet at the northern-most corner to some 700 feet along the southwestern portion. Topography is characterized by northeasterly inclined slopes with one major canyon looping through the property (see Slope Map, Exhibit 2.1). Slopes are mostly moderate (less than 30%) with the exception of the steepness associated with the northern one-half of the major canyon. Wind and water eroding the parent material have created the existing slope as summarized in the following table:

TABLE 2.1

SLOPE OF LAS PALMAS RANCH

Slope Category	Area(Acres)	% of Total Acreage
0-10%	283	18
11-20%	488	31
21-30%	326	21
30%+	481	30
Totals	1,578	100%

The Ranch is located along the westerly edge of the Salinas Valley. The lower valley and ridge area of the site have non-marine Plio Pleistocene deposits and some Quaternary Alluvial deposits adjacent to River Road. The upper ridge portions of the site are underlain by Upper Miocene marine sandstone. Some river terrace deposits (Upper Pleistocene) were found along the southeasterly edge of the project area.

Oliver Bowen designates the Plio Pleistocene non-marine deposits as Paso Robles Formation and the Upper Miocene Formation as Santa Margarita sandstone (Tertiary) on his "Geological Map of Monterey and Salinas Quadrangles, 1969", California Division of Mines and Geology.

EXHIBIT 2.1

SLOPE ANALYSIS

- 0 – 10% SLOPE
- 10 – 20% SLOPE
- 20 – 30% SLOPE
- 30% AND ABOVE

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A fault evaluation report prepared by Cooper and Clark[1] is incorporated here by reference. Following is the report summary:

> "The Las Palmas Ranch Geotechnical Evaluation identified the King City fault as possibly representing a surface rupture hazard at the site. Figure 4 of the Proposed Environmental Constraints Analysis of Monterey County, Part 1, Seismic and Geologic Hazards, identifies the Reliz (King City) - Rinconada fault as being potentially active (active faulting in the last three million years). Map F of the Seismic Safety Element of the Monterey County General Plan places a Hazard Zone VI around the King City fault and indicates that group rupture is a major hazard. Various investigators are in disagreement as to the existence, location and activity of the fault.
>
> The purpose of this study was to determine if the King City fault traverses the Las Palmas Ranch and, if it does, what its potential activity is. To resolve the potential surface rupture hazard, Cooper & Clark developed a fault evaluation study and outlined the approach in a letter to Las Palmas Ranch Partnership on January 14, 1981. In a memorandum dated January 24, 1981, the Monterey County Planning Department deemed the approach feasible.
>
> Deep, seismic reflection techniques were used to obtain a picture of site subsurface conditions. Two, 2300 foot long reflection traverses were run across the suspected fault trace at the north and south ends of the site by Cooksely Geophysics, Inc. of Redding, California, who also recorded, processed and interpreted the data obtained.
>
> Interpretation of the geophysical data shows no Holocene (see Geologic Time Scale) faulting and no significant faulting of any age at the site. A second, more liberal interpretation indicates the possibility of faulting at substantial depth beneath the site. However, the youngest units apparently offset appear to be mid-Pliocene (about 3.5 million years old) in age. Thus, even in a liberal interpretation, faulting at the site is no younger than mid-Pliocene and, as such, surface rupture hazards are nil.
>
> As discussed in the Geotechnical Evaluation, previous investigators have mapped a splay fault from the King City fault within the site. However, no evidence to support the existence of this fault was noted during our mapping of the site. Because of this and the geophysical evidence which suggests that the King City fault does not exist in the site area, we consider it unlikely that the splay fault exists. If confirmation of this conclusion were necessary, trenches could be excavated across the map location of the suspected fault during subsequent erosion and sedimentation studies for the projects."

---

(1) "Las Palmas Ranch Fault Evaluation Study", May 20, 1981, by Cooper & Clark Consulting Engineers.

The major risk from seismic activity comes from the San Andreas Fault some sixteen miles northeast of the property. The Tularcitos Fault, eight miles to the southwest and the Navy Fault, seven miles to the west, are other potentially active nearby faults presenting seismic risk to Las Palmas.

The Monterey County Seismic Safety Element shows most of the property is within a "Relatively Unstable Upland" area where ground failure is typically moderate-to-high and locally severe. Ground shaking hazard is low to moderate.

IMPACT

A discussion of cumulative geologic impacts for the River Road ADC was omitted pursuant to the Initial Study (Appendix A).

The Cooper & Clark Fault Evaluation concludes that the King City Fault and a splay fault from the King City Fault do not exist in the site area. Therefore, no unusual fault conditions or impacts appear to be associated with the site.

The Monterey County Staff has accepted the Cooper and Clark reports as adequate but suggest that additional geologic work may be necessary if development is proposed on areas other than Las Palmas.

MITIGATION MEASURES

Since structural design requirements of the Uniform Building Code takes the seismic potential for the general area into account, no additional mitigation is indicated.

2.3 SOILS

SETTING

The twenty-one soil types found on Las Palmas Ranch are shown on Exhibit 2.2 and described in Table 2.2.

TABLE 2.2

LAS PALMAS RANCH SOILS ANALYSIS

SYMBOL	SOIL TYPE	ACRES	SLOPE(%)	RUNOFF	EROSION HAZARD	SOIL CREEP	LANDSLIDE	AGRICULTURAL CAPABILITY
1. AaC	Alto Silty Clay	1	2- 9	Medium	Slight			IIIe-5
2. AkD	Arnold Loamy Sand	24	9-15	Medium	Moderate			IVe-4
3. Am	Arnold-San Andreas Complex	24	50-75	Rapid	High	*	*	VIIe-1
4. Ba	Badland	110	Variable	Very Rapid	Very High		*	VIIIe-1
5. CaE	Chamise Shaly Loam	56	15-30	Rapid	High		*	IVe-1
6. CaF	Chamise Shaly Loam	3	30-50	Rapid	High			VIe-1
7. CbB	Chualar Loam	5	2- 5	Slow	Slight			IIe-1
8. DbE	Diablo Clay	16	15-30	Rapid	Moderate	*	*	IVe-5
9. EaA	Elder Sandy Loam	30	0- 2	Slow	Slight			IIs-4
10. GhC	Gloria Sandy Loam	1	2- 9	Slow	Slight			IIIe-3
11. LcG_2	Linne-Shedd Silty Clay Loam	24	50-75	Very Rapid	Very High	*	*	VIIe-1
12. LhE	Lopez Shaly Loam	70	15-30	Medium	High	*	*	VIIe-1
13. MnA	Mocho Silty Loam	170	0- 2	Slow	Slight			IIIe-1
14. PdD	Pfeifer Fine Sandy Loam	1	9-15	Medium	Moderate		*	IVe-1
15. PnA	Placentia Sandy Loam	8	0- 2	Slow	Slight			IIIs-3
16. PnC	Placentia Sandy Loam	84	2- 9	Slow	Slight			IVe-3
17. ScE	San Andreas Fine Sandy Loam	18	15-30	Rapid	Moderate		*	VIe-1
18. ScG	San Andreas Fine Sandy Loam	260	30-75	Rapid	High	*	*	VIIe-1
19. SdF	San Benito Clay Loam	14	30-50	Rapid	Moderate	*	*	VIe-1
20. ShE	Santa Ynez Fine Sandy Loam	391	15-30	Rapid	High	*	*	VIe-1
21. Xd	Xerorthents - Dissected	138	35-90	Rapid	High	*	*	VIIe-1
		1,578						

* Potential Exists

Source: United States Department of Agriculture, Soil Survey of Monterey County, 1978, and Cooper & Clark, "Final Report Phase I Geological Reconnaissance and Geologic Hazards Investigation, Las Palmas Ranch", November, 1980.

Soils represent variations of clay, sand and loams. Variations of loams are predominant and cover approximately 80% of the site. Badlands, a non-soil, xerothents and Arnold/San Andreas complexes cover 18% while only 2% of the site is silt clay and clay soils. Class II agricultural soils (Chualar Loam and Elder Sandy Loam) cover approximately 38 acres in the northwest portion of the property.

The most extensive soil type is Santa Ynez fine sandy loam which covers about 382 acres or approximately one fourth of the site.

Soils are typical of the foothill region with steeper slopes exhibiting poor agricultural capability, rapid run-off and high erosion hazard. The more moderate or flat sands are better suited to agriculture with slow to moderate run-off and slight erosion hazard. Because both alternative development plans propose a community sewage disposal system for the entire project, septic tank suitability was not analyzed.

With the exception of 88 acres at the northwest portion of the Ranch, all other soils are currently used for limited grazing, open space and watershed purposes. According to the applicant, 88 acres are currently under irrigated cultivation, 33 acres south of River Road and 55 acres north of River Road and adjacent to the Salinas River. This existing irrigated land is on Elder Sandy Loam, a Class II agricultural soil, and Mocho Silty Loam, a Class III agricultural soil. The cultivated land is considered prime farm land.

The geotechnical evaluation by Cooper and Clark[1] located several small landslides and erosion scarps on Las Palmas Ranch (Exhibit 2.2).

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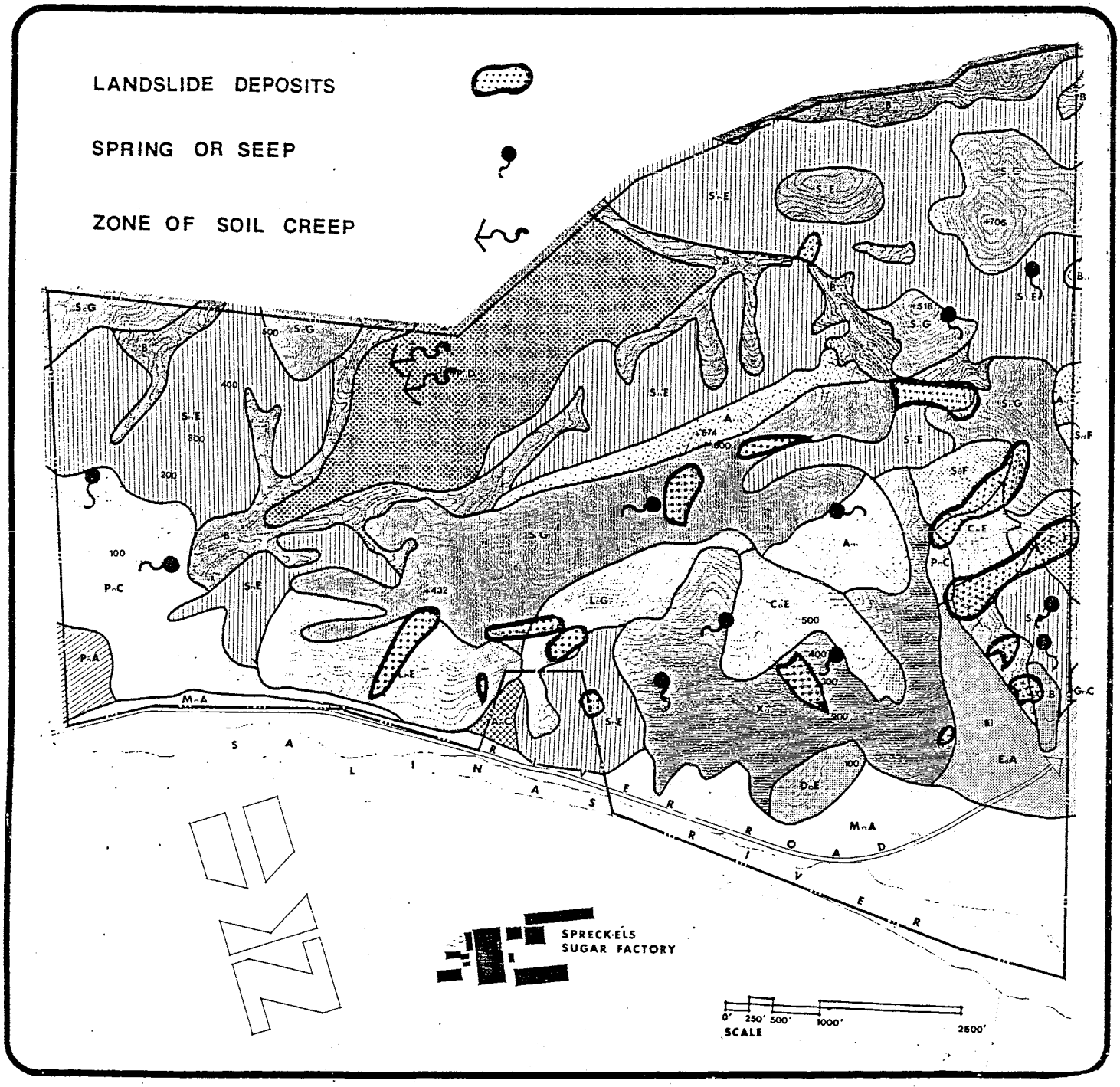
(1) "Final Report Phase I Geological Reconnaissance and Geologic Hazads Investigation - Las Palmas Ranch", November 1980, by Cooper and Clark Consulting Engineers.



SOILS MAP

SOILS TYPE

- A-C ALTO SILTY CLAY
- A-e ARNOLD LOAMY SAND
- A-- ARNOLD - SAN ANDREAS COMPLEX
- B. BADLAND
- C-E CHAMISE SHALY LOAM
- C-F CHAMISE SHALY LOAM
- C-B CHUALAR LOAM
- D-E DIABLO CLAY
- E-A ELDER SANDY LOAM
- G-C GLORIA SANDY LOAM
- L-G, LINNE-SHEDD SILTY CLAY LOAM
- L-E LOPEZ SHALY LOAM
- M-A MOCHO SILTY LOAM
- P-A PLACENTIA SANDY LOAM
- P-C PLACENTIA SANDY LOAM
- S-E SAN ANDREAS FINE SANDY LOAM
- S-G SAN ANDREAS FINE SANDY LOAM
- S-F SAN BENITO CLAY LOAM
- S-E SANTA YNEZ FINE SANDY LOAM
- X. XERORTHENTS - DISSECTED
- P-D PFEIFER FINE SANDY LOAM

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Soil Capability Analysis - Central to the land use planning for the Las Palmas site was the analysis of the capability of various soils to withstand disturbance caused by development. This soil capability analysis was undertaken prior to the formulation of either the Existing Policy Plan or the ADC Policy Plan. It identified where development could be clustered in areas most suitable, leaving more hazardous areas in open space. With few exceptions, both land use plans closely correspond to the soil capability classifications.

The methodology for analysis was developed by Robert G. Bailey in a report for the Tahoe Regional Planning Agency in 1974. Each soil type is placed in one of seven land capability classes by virtue of the soil's slope, erosion hazard and runoff potential. Table 2.3 classifies each soil by capability class; Exhibit 2.3 shows the results of this analysis.

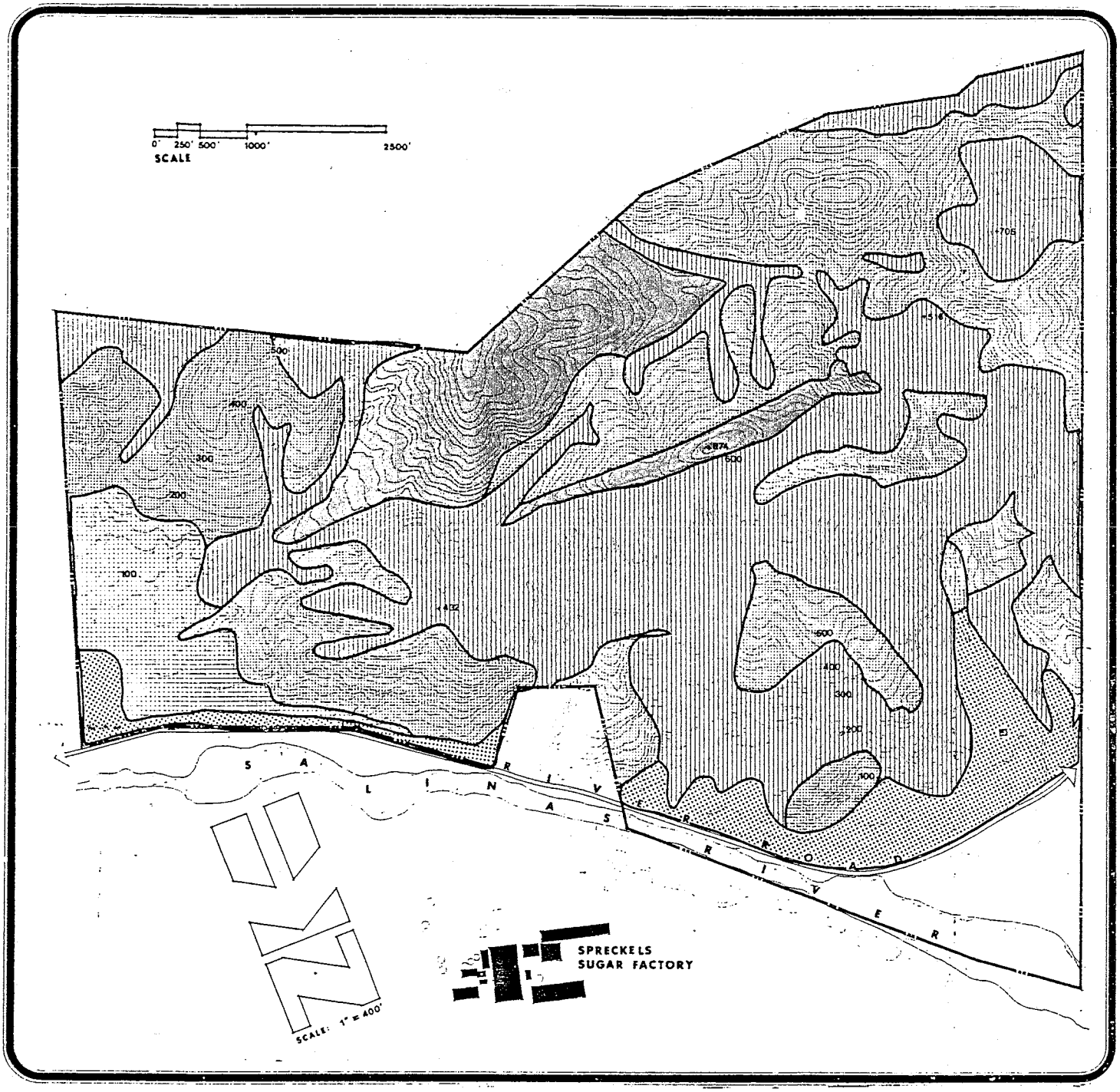
TABLE 2.3

SOIL CAPABILITY ANALYSIS

SYMBOL	ACRES	SLOPE(%)	RUNOFF	EROSION HAZARD	SOIL CAPABILITY CLASS
AaC	1	2- 9	Medium	Slight	5
AkD	24	9-15	Medium	Moderate	4
Am	24	50-75	Rapid	High	1
Ba	110	Variable	Very Rapid	Very High	1
CaE	56	15-30	Rapid	High	3
CaF	3	30-50	Rapid	High	1
CbB	5	2- 5	Slow	Slight	7
DbE	16	15-30	Rapid	Moderate	3
EaA	30	0- 2	Slow	Slight	7
GhC	1	2- 9	Slow	Slight	6
LcG_2	24	50-75	Very Rapid	Very High	1
LhE	70	15-30	Medium	High	3
MnA	170	0- 2	Slow	Slight	7
PdD	1	9-15	Medium	Moderate	4
PnA	8	0- 2	Slow	Slight	7
PnC	84	2- 9	Slow	Slight	5
ScE	18	15-30	Rapid	Moderate	3
ScG	260	30-75	Rapid	High	1
SdF	14	30-50	Rapid	Moderate	1
ShE	391	15-30	Rapid	High	3
Xd	138	35-90	Rapid	High	1

Source: Grunwald, Crawford & Associates

EXHIBIT 2.3



SOIL CAPABILITY

LEGEND

OPEN SPACE	CLASS 1	
	CLASS 2	DOES NOT OCCUR
LOW DENSITY	CLASS 3	
	CLASS 4	
MOD. DENSITY	CLASS 5	
	CLASS 6	DOES NOT OCCUR
HIGH	CLASS 7	

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The seven land capability classes, distinguished according to the relative risk of land damage or disturbance, are briefly defined as follows:

A. Lands That Should Remain in Their Natural Condition:

Class 1 - Highly Sensitive Areas - Soils in Class 1 have hazard characteristics that generally preclude development and restrict use to open space, conservation areas, and low-intensity recreation.

Class 2 - Does not occur at Las Palmas.

B. Lands That Are Permissive to Certain Uses But Not to Others:

Class 3 - Moderately Steep Slopes of 9% to 30% - These lands have moderate hazard characteristics that restrict their use to grazing and low density housing. Development in such areas must be carefully designed and carried out. Soils and landforms have moderate erosion hazard and moderately high to high runoff potential.

Class 4 - Moderately Steep Slopes of 9% to 30% - These lands have moderate hazard characteristics that restrict use to grazing and low density housing. Careful design and construction practices must be followed. Soils and landforms have moderate erosion hazard and low to moderately low runoff potential.

C. Lands That Are Most Tolerant to Urban Type Uses:

Class 5 - Gently Sloping Lands of 16% or Less - These lands have low hazard characteristics, but have some limitations on land disturbance, or require special conservation practices, or both. Soils and landforms have slight erosion hazard and moderately high to high runoff potential.

Class 6 - Gently Sloping Lands of 16% or Less - These lands have low hazard characteristics, but have some limitations that require moderate conservtion practices. Soils and landforms have slight erosion hazard and low to moderately low runoff potential.

Class 7 - Flat Valley Floors of 5% or Less - These lands have low disturbance hazard characteristics and have few limitations that restrict use. Soils and landforms have slight erosion hazard and low to moderately low run-off potential.

Las Palmas Ranch acreage within each soil capability class is as follows:

	Acres	%
No. 1	573	36.3
No. 2	Does Not Occur	
No. 3	551	34.9
No. 4	155	9.8
No. 5	85	5.4
No. 6	1	0.6
No. 7	213*	13.5
	1,578	

*This includes 55 acres north of River Road which are not in the proposed River Road ADC.

As can be seen, about 36% of the site is unsuitable for development using these criteria, while an additional 45% should be used only for limited development with stringent conservation practices. Only about 19% of the site, or 299 acres, is generally suitable for development with minimum environmental concerns.

The soil capability analysis is only as valid as the soil information upon which it is based. Because the soil survey is generalized, so too is the soil capability analysis. It should not be used as a rigid guide to development areas but rather as a design tool to help avoid the most environmentally sensitive areas.

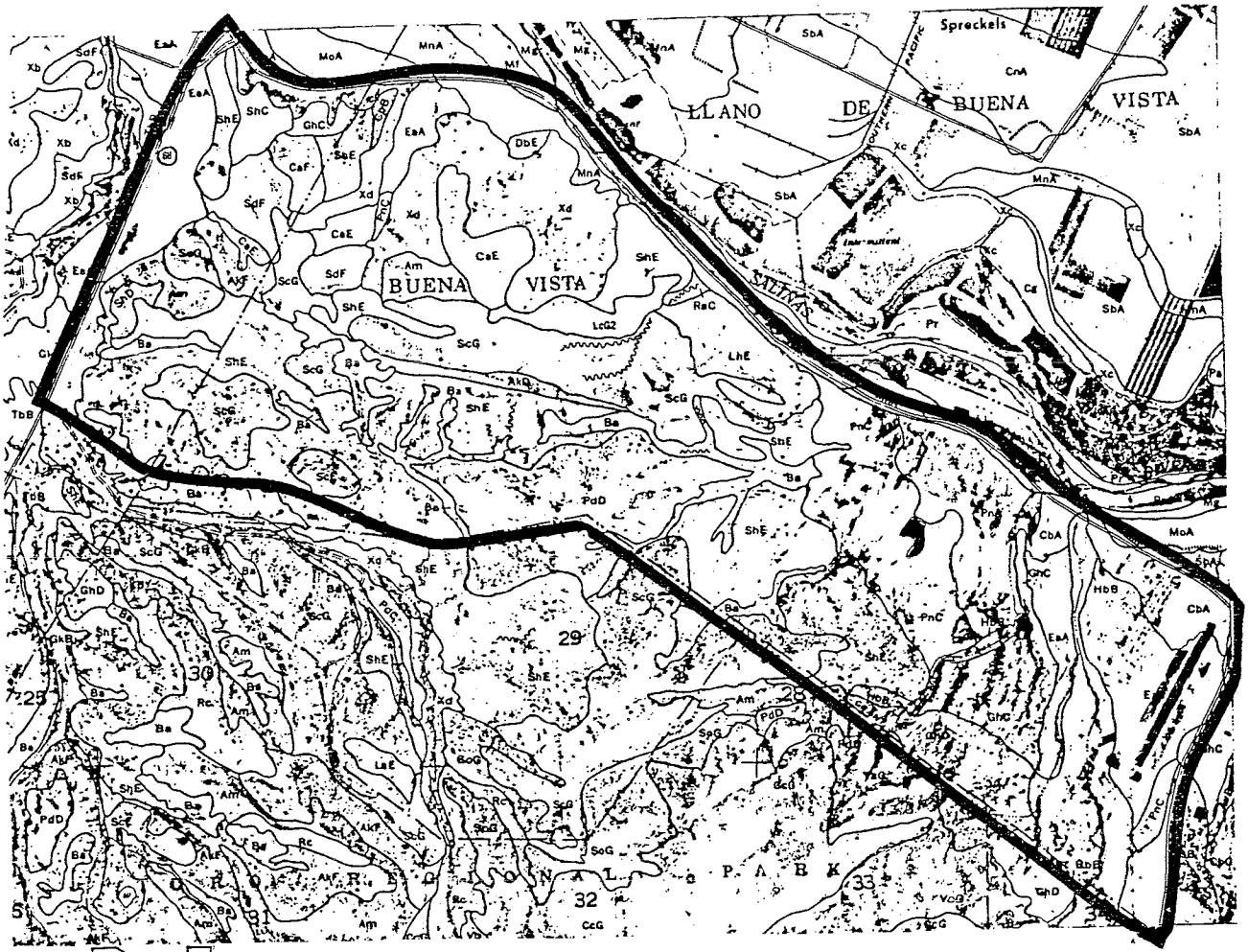
Soils of the River Road ADC are shown on Exhibit 2.4. In addition to the soils shown in Table 2.2 (Las Palmas Ranch), Table 2.4 lists other soils found in the River Road ADC.

TABLE 2.4

ADDITIONAL SOILS OF THE RIVER ROAD ADC

SYMBOL	SOIL TYPE	SLOPE	RUNOFF	EROSION HAZARD	AGRICULTURAL CAPABILITY
AkF	Arnold Loam Sand	15-50	Rapid	High	VIIe-1
GkB	Gloria Sandy Loam	2- 9	Slow	Slight	IIIe-3
ShC	Santa Ynez Fine Sandy Loam	2- 9	Slow	Medium	IVe-3
AsB	Arroyo Seco Gravelly Sandy Loam	2- 5	Slow	Slight	IIIe-4
PnC	Placentia Sandy Loam	2- 9	Slow	Slight	IVe-3
HbB	Hanford Gravelly Sandy Loam	0- 5	Slow	Slight	IIs-4
ShD	Santa Ynez Fine Sandy Loam	9-15	Medium	Moderate	IVe-3

Source: United States Department of Agriculture, Soil Survey of Monterey County, 1978.



N

SOILS TYPE

- A.C ALTO SILTY CLAY
- A.. ARNOLD LOAMY SAND
- A.. ARNOLD - SAN ANDREAS COMPLEX
- B.. BADLAND
- C.E CHAMISE SHALY LOAM
- C.F CHAMISE SHALY LOAM
- C B CHUALAR LOAM
- D.E DIABLO CLAY
- E.A ELDER SANDY LOAM
- G.C GLORIA SANDY LOAM
- L G. LINNE-SHEDD SILTY CLAY LOAM
- L E LOPEZ SHALY LOAM
- M A MOCHO SILTY LOAM
- P A PLACENTIA SANDY LOAM
- P C PLACENTIA SANDY LOAM
- S E SAN ANDREAS FINE SANDY LOAM
- S G SAN ANDREAS FINE SANDY LOAM
- S.F SAN BENITO CLAY LOAM
- S.E SANTA YNEZ FINE SANDY LOAM
- X.. XERORTHENTS - DISSECTED
- P.D PFEIFER FINE SANDY LOAM

THE A.D.C. SOILS MAP

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

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Soils of Toro Vista are generally moderate to steeply sloping with rapid runoff and high erosion hazard; an exception is the band of Elder Sandy Loam adjacent to Highway 68. In the eastern portion of the ADC, lands adjacent to River Road are gently sloping with good agricultural capability. Towards the southern boundary, slopes are moderate to steep, characterized by rough terrain.

IMPACTS

Las Palmas Ranch

Both alternative plans for Las Palmas Ranch would remove existing cultivated farmland south of River Road, thus converting about 33 acres of prime lands to urban uses. Existing cultivated lands north of River Road would also be lost to row crop production in both plans (see 2.9.1 - Wastewater Management). Loss of these prime farmlands may not be inconsistent with existing policy as discussed in Section 1.3.1.. However, if the loss of this row crop farmland serves as a precedent for the conversion of other high value crop farmland, the cumulative impact would be significant. The loss of the 33 acres would be irreversible with either plan, however, and replacement of the farmland elsewhere on the ranch site would be difficult.

Cooper and Clark determined that soils associated with Santa Margarita Sandstone, Paso Robles tertiary formation and terrace deposits, and alluvium and colluvium of the Quarternary may provide less than adequate support for structural foundations.(1)

The Soils Map shows areas identified by Cooper and Clark that have experienced sliding, slumping, failure and soil creep. These areas, if disturbed, will likely accelerate soil loss and increase the potential failure of sensitive formations.

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(1) Cooper & Clark, "Final Report Phase I, Geological Reconnaissance and Geologic Hazards Investigtion - Las Palmas Ranch".

Natural seeps found within the site occur along contacts of soil types and near documented ground failure. Construction activity for roads, sewer and water lines and building pads affecting the toe of existing slips and disturbances to natural seep areas are likely to increase the probability of creep and subsequent failure.

A conversion to urban use will affect sheet erosion soil loss and associated runoff and drainage will affect rill and gully erosion. The magnitude of potential impacts is directly related to the actual soil type disturbed and, more importantly, to applied conservation practices. Without conservation practices, long term agricultural operations have a greater potential for sheet and rill erosion and related water quality degradation than soil loss from a mature residential development. Conversely, a greater potential for initial large volume sheet and rill erosion exists during the first two years following construction activity than from normal agricultural practices.

The ADC Policy Plan for the Ranch has the potential to create more erosion than the Existing Policy Plan by virtue of more extensive site development and more intensive use of areas identified by the soil capability analysis as sensitive to higher densities.

Both alternative specific plans propose development in areas where portions have been identified by the soil capability analysis for no development or very low intensity development. However, as stated in the Existing Policy Plan report, the intent is to resolve the use of these sensitive areas during the precise design stage by including them in the open space or by providing specific engineering solutions approved by the county.

Of particular concern with the ADC Policy Plan are development areas C, F, G, H, I, J, and K. Areas F, J, and K occur partially on soils identified as Class I

from a soil suitability standpoint and are recommended for non-residential use by the soil capability analysis. The other four development areas (C, G, H and I) are proposed for more intense use than indicated by the soil capability analysis.

Significant adverse impact could occur from development in these areas on either plan alternative if the precise design stage ignores the limitations.

Intensive development in Development Area A, north of the Corey House, could be impacted by landslide areas as identified on the soil map. An area of soil creep, identified in Area H near the southern site boundary, could adversely affect building foundations and swimming pools.

In summary, the potential for soil disruption and erosion is relatively less with the Existing Policy Plan than with the ADC Policy Plan. Although caution must be exercised in the northerly Development Areas of either Plan as highlighted above, the Existing Policy Plan is less intense (fewer units per acre) and does not involve Area K as a development area. The potential hazards posed by landslide and soil creep areas are virtually the same for both proposed plans.

River Road ADC (Excluding Las Palmas Ranch)

Existing cultivated land within the River Road ADC, exclusive of Las Palmas Ranch, is proposed to remain in permanent agriculture. These lands, located at River Road and Pine Canyon Road, will continue to contribute sedimentation to the Salinas River as a result of agricultural practices. The Pedrazzi and Indian Springs subdivisions are relatively stable and will not contribute significantly to soil impacts.

Although Toro Vista, Vista Del Rio and Pine Canyon Estates are undeveloped, the

Final EIR's for those projects contain mitigation measures which, when instituted, should minimize soil impacts.

Parcels "A" and "B" in Exhibit 1.2, totaling about 177 acres, currently have no development plans. Parcel "A" contains moderate to steep slopes and primarily Santa Ynez fine sandy loams; this soil type has a high erosion hazard and is generally not suited to residental development. Parcel "B" is more moderately sloping with sandy loams less prone to erosion and better suited to development.

Within the River Road ADC (excluding Las Palmas Ranch), development entitlements and existing county procedures can be applied to development projects to reduce soil impacts. Thus, the most adverse cumulative effects in the development of the ADC (excluding Las Palmas Ranch) will come from the approximate 284 acres which will either remain in permanent agriculture or, in the case of Parcels "A" and "B", will probably be developed through the parcel map process.

MITIGATION MEASURES

Las Palmas Ranch

The following measures apply to both proposed plans for Las Palmas Ranch:

1. The avoidance of sensitive soils, as recommended by the soil capability analysis, is the primary mitigation measure. This could entail some revision to both plans during the precise design stage. Relatively more revision may be required of the ADC Policy Plan since it shows more development planned for unsuitable areas.

2. An on-site grading and erosion control plan should be prepared prior to tentative map approval. By means of this program, erosion, siltation, and sedimentation controls can be implemented in accordance with the Monterey County Master Drainage Plan. The plan would contain best management practices as appropriate, which should include the following

as a minimum:

- Winterization practices.
- Permanent structural and vegetative stabilization practices.
- Location, size and construction specifications of appropriate storm water/sediment catch basins.
- Identification of building envelopes and driveway access in areas over 15% slope for purposes of slope stability analysis.

3. Between 876 acres (Existing Policy Plan) and 900 acres (ADC Policy Plan) of the site will be maintained in permanent open space. The soils of the area to be left open are primarily suited to rangeland, watershed, and wildlife. A resource management plan should be submitted for the open space area containing provisions for wildlife habitat enhancement and recreation use.

The River Road ADC (Excluding Las Palmas Ranch)

1. Owners of permanent agricultural lands should be encouraged to implement Best Management Practices suggested by the U.S. Soil Conservation Service.

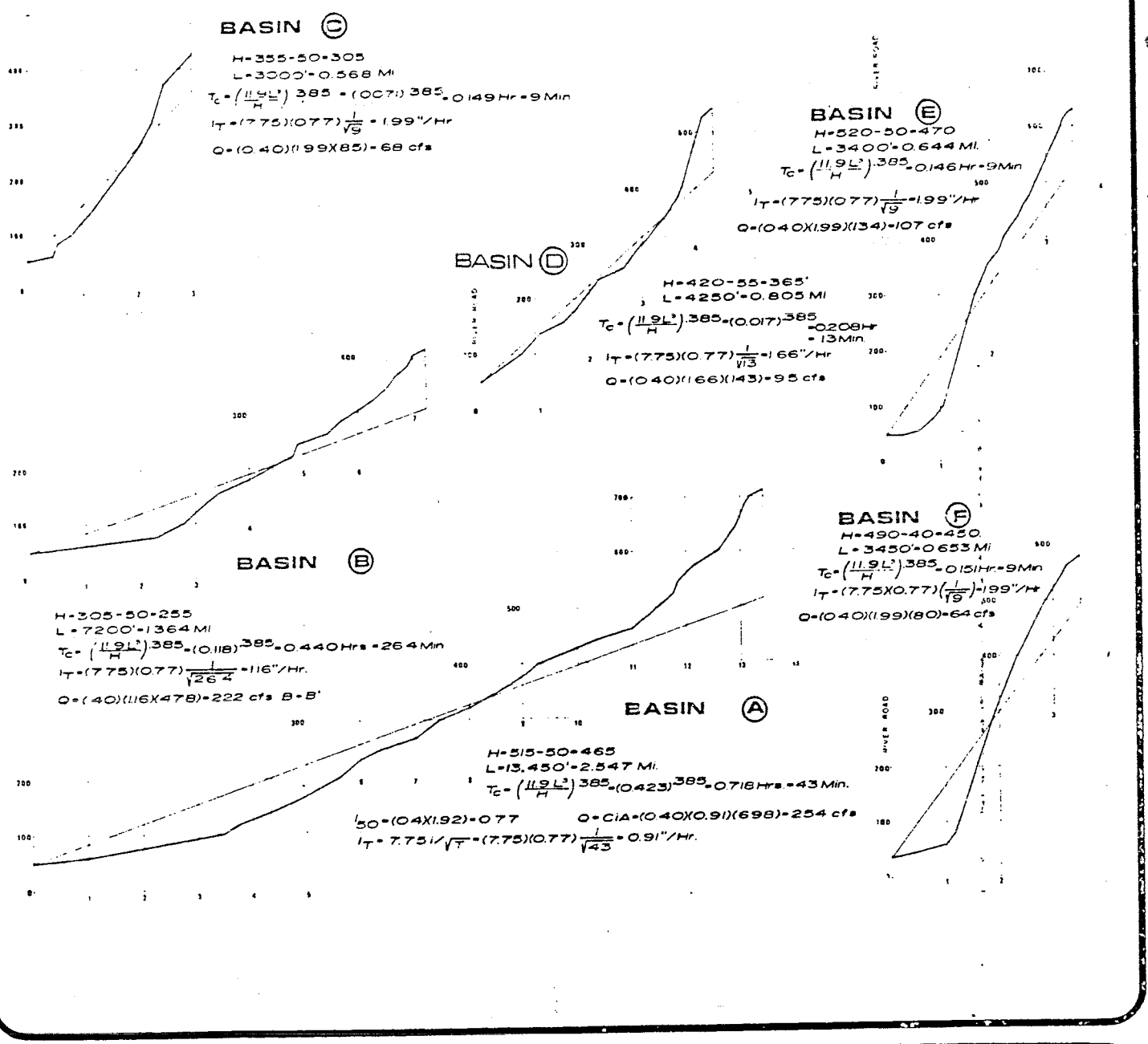
2. Future development of Parcels "A" and "B" (Exhibit 2.5), should be implemented with final subdivision map standards so that adequate erosion control measures can be identified and precisely sited.

3. See Final EIR's for Toro Vista, Vista Del Rio and Pine Canyon Estates, which are incorporated here by reference. (See Bibliography)

2.4 HYDROLOGY

SETTING

The Las Palmas Ranch Environmental Resources Inventory provides an extensive discussion of local hydrological data and should be consulted for further information.



BASIN
PROFILES
HYDROLOGY

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

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2.4.1 Surface Hydrology

Las Palmas Ranch

The Las Palmas property is drained by a series of intermittent creeks which form seven basic drainage basins flowing northerly to the Salinas River (Exhibit 2.6). These relatively small drainage areas generally originate within the property boundaries. The largest drainage area (700 acres ±) originates slightly south of the property. Existing drainage control structures constructed along the northeasterly property line and River Road consist of 24-36" diameter corrugated metal pipe culverts under the road bed. The runoff drains onto adjacent farmland and into the Salinas River.

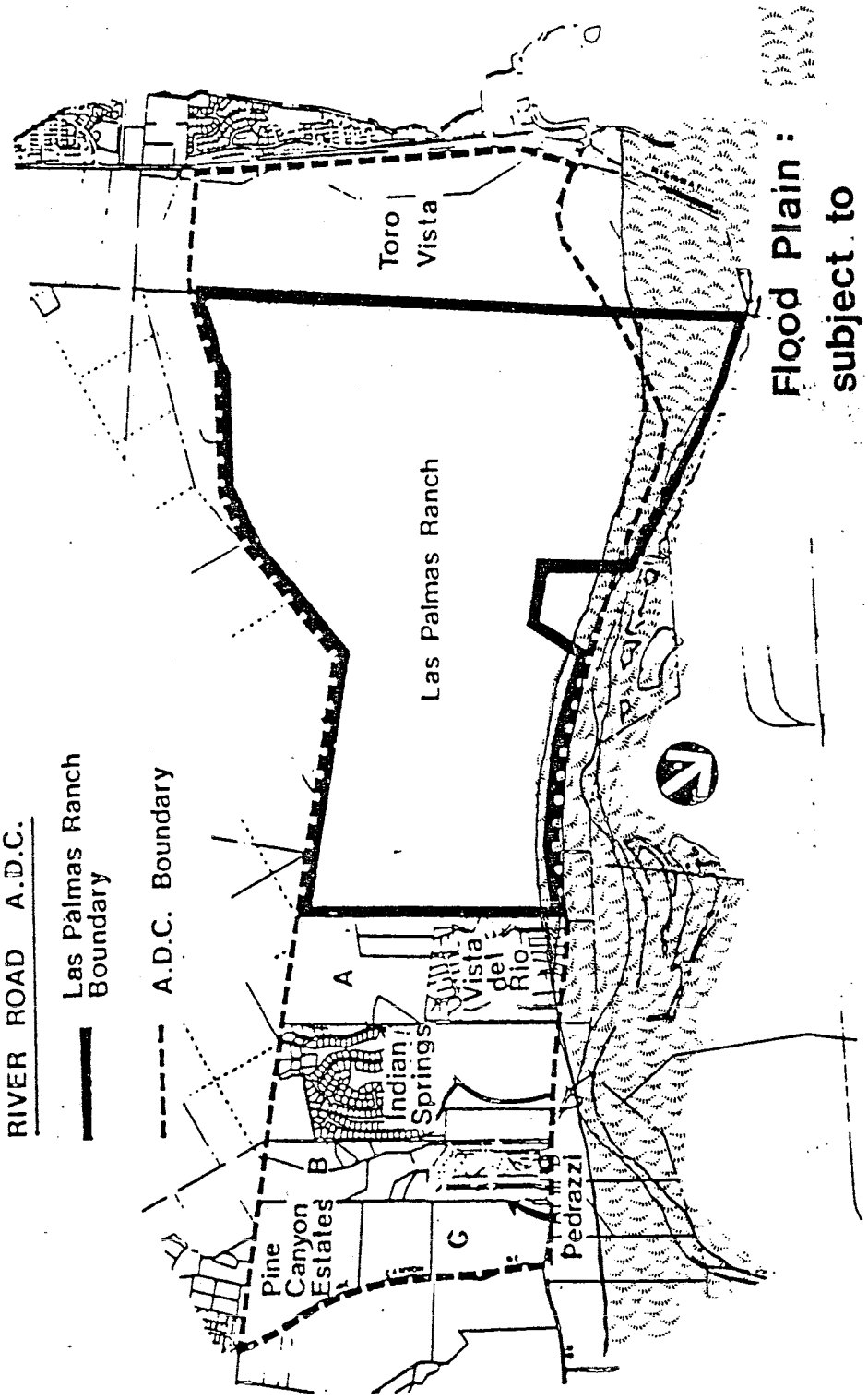
Profiles of each of the basins are shown in Exhibit 2.5 together with calculations based on the Monterey County Department of Public Works Standard Details, Plate No. 25. This supplied the 50-year storm intensities to be expected. Times of concentration (Tc) were obtained by use of basin profiles shown. No initial time was added, thus results should be conservative. An overall runoff coefficient based on the average for the entire site was used for these calculations (C-0.40). The "rational formula" was then used to obtain the results shown.

The Monterey County Flood Control District is currently involved in flood plain mapping of the Salinas River. Their consultant for this portion of the overall project is George S. Nolte & Associates of San Jose. Preliminary results of the flood plain mapping project indicate that the existing 100 year flood plain encompasses the northwest portion of the site, including a small area south of River Road (Exhibit 2.6).

The flood mapping at this point, however, must be considered tentative for the following reasons:

100 YEAR FLOOD PLAIN

EXHIBIT 2.6



LAS PALMAS

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a. The studies of the flood plain consultant were based on U.S.G.S. maps supplemented by cross sections done by photogrammetric methods. According to the Las Palmas project engineer, specific mapping of Las Palmas and a re-study of the portion of the river adjacent to the property will provide greater accuracy.

b. The flood plain consultant's map indicates that an existing levee along the south bank of the river at the northwestern corner of Las Palmas is not permanent. Levees adjacent to the north bank of the river, are treated as permanent features. Equal treatment of all levees in the calculations could also lead to more accurate results.

River Road ADC (Excluding Las Palmas Ranch)

With the exception of Toro Vista, the remainder of the River Road ADC drains within small intermittent channels directly to the Salinas River.

Toro Vista drains to El Toro Creek west of Highway 68 (El Toro Creek drains an approximate 42 square mile area). These channels are also intermittent, carrying runoff flows under Highway 68 in a system of pipes and reinforced culverts.

None of the Toro Vista area within the River Road ADC is subject to 100 year flooding. Approximately 22 acres of the Vista Del Rio subdivision is within the 100 year flood plain of the Salinas River, as identified within the Final EIR for that project.

IMPACTS

Las Palmas Ranch

Concentrated development and impervious surfaces proposed in both alternative plans will increase runoff above those identified for existing drainage basins.

Increases in peak flows could cause on-site flooding, especially at the point of discharge on River Road, and greater erosion hazard.

The medium density housing in Area A of both Plan alternatives south of River Road could be impacted by a 100 year flood.

The River Road ADC (Excluding the Las Palmas Ranch)

With mitigation measures applied as outlined in the Final EIR's for Toro Vista, Pine Canyon Estates and Vista Del Rio, drainage impacts are not expected to be significant.

MITIGATION MEASURES

Las Palmas Ranch

The following are applicable to either of the alternative plans for the Las Palmas Ranch:

1. The Erosion and Drainage Control Plan to be implemented as development proceeds, can maintain runoff at or below current levels.

2. In keeping with the Monterey County Safety Element, uses allowed within the 100 year flood plain should be constructed to be flood-safe, and located and constructed to avoid the possibility of increasing flood levels elsewhere.

3. To protect urban development south of River Road, the endangered area should be filled to an elevation above the indicated flood elevation.

4. The portion of River Road subject to flooding should be raised to act as levee against the 100 year flood.

5. Culverts passing under River Road should be equipped with flood gates to prevent flood waters from backing through them into the project.

2.4.2 Groundwater

(See 2.9.2. - Water Service for on-site facility requirements.)

With the exception of Toro Vista, the entire River Road ADC is within the Salinas basin and within Zone 2 or 2A of the Monterey County Flood Control and Water Conservation District (MCFCD). Groundwater yields have been good in the general area, but due to variations in strata, drilling and testing would be needed to find the best well sites.

With few exceptions, according to the State Water Resources Control Board(1), the surface water and groundwater quality in the Salinas River Sub Basin is suitable for all water uses. Agricultural wastewater contributes to the impairment of groundwater quality to varying degrees throughout the sub basin, as does saltwater intrusion in the Castroville area.

IMPACTS

The ADC Policy Plan domestic requirement will be about 922 acre feet annually compared to 450 acre feet for the Existing Policy Plan. The estimated annual domestic water requirement for the remainder of the River Road ADC is 500 acre feet. In addition, row crop lands, if remaining in production, would continue to require about 400 acre feet per year.

In a special hearing before the Monterey County Board of Supervisors held June 23, 1981, Mr. Robert Smith, District Manager of the MCFCD, stated that water of adequate quantity and quality exists to serve proposed development in the Toro Area, which includes the River Road ADC. Smith stated further that the proposed levels of development in the River Road ADC do not pose any threat of degradation to the groundwater of the area. Therefore, no significant drawdown of the underground water supply is anticipated based on studies by the MCFCD.

(1) State of California, Water Resources Control Board, (Interim) Water Quality Control Plan for the Central Coastal Basin (Basin 3); June, 1971.

MITIGATION MEASURES

1. A program of well exploration, volume, and quality testing by a registered hydrologist should be carried out prior to tentative map approval.

2. Engineered treatment for removal of sand, iron, manganese as well as a chlorinator for possible coliform bacteria will mitigate water quality problems.

2.5 VEGETATION AND WILDLIFE

This section is a summary of the flora, fauna and habitat types found on the subject property. A more complete biological survey report is included in The Las Palmas Ranch Environmental Resources Inventory.

2.5.1 Vegetation

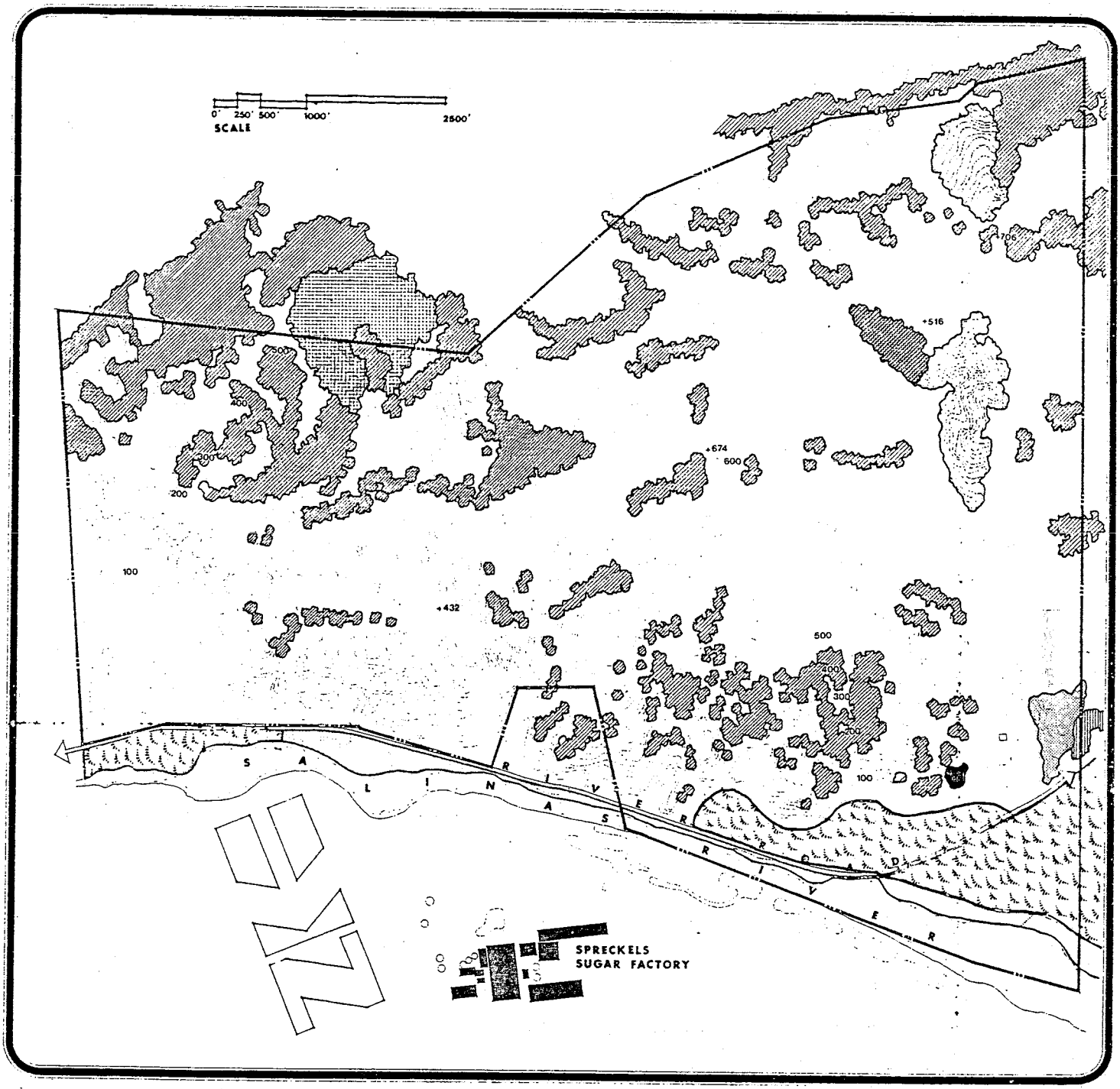
SETTING

Las Palmas Ranch

The exposure and rain shadow effect created by the Santa Lucia Mountains and Mt. Toro, further to the south and west, results in sparse vegetation by comparison to other properties nearby. Exhibit 2.7 shows that over half of the property is open grassland which is grazed by cattle; most of the remainder is scattered oak woodland with an understory of grass. Biologically, there is little distinction between the grassland and oak woodland except for the influence of individual trees.

Minor portions of the property which contain steep slopes and ravines are covered with brush, predominately chamise and California sagebrush. The dominant native trees on the property are coast live oak. Also present are a few California buckeye and occasional toyons approaching tree size. North of River

EXHIBIT 2.7



VEGETATION

LEGEND

- OAK WOODLANDS
- OAK & SAGEBRUSH
- CALIFORNIA SAGEBRUSH
- CHEMISE
- OPEN GRASSLANDS
- PINE & CYPRESS
- EUCALYPTUS
- POSSIBLE HABITAT OF ENDANGERED PLANT SPECIES
- RIPARIAN
- AGRICULTURAL

LAS PALMAS

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Road, the land is farmed except for a band of riparian vegetation along the Salinas River.

The oak woodland consists mainly of widely dispersed trees, probably in the 200 to 300 year age class. Some are stately, spreading trees, many others are in poor condition and appear to be declining from heart rot and the effects of the 1976-1977 drought. Several trees with the original trunks burned or rotted away have resprouted from the roots and form clumps of smaller trees. There are few young oaks, saplings, or seedlings primarily because cattle grazing has suppressed oak regeneration. Existing oaks which provide visual relief to otherwise barren terrain, could be considered the area's most valuable biological resource.

Brushland - Two distinctly different types of brushlands, which do not overlap, occur on the Las Palmas Ranch. Along the southern property line, about a third of the distance from the southeastern corner of the property, is a slope covered with a pure stand of chamise. Near the western edge of the property, in a ravine behind the main ranch house, is a brush type consisting almost entirely of California sagebrush.

Grasslands - Grasslands comprise the most extensive vegetation type. They cover large open knolls and meadows and merge with the open oak woodland where the understory composition is virtually the same. These grasslands, often defined as native pasture, are not native in a biological sense. Continued cattle grazing has had a profound effect on the native plant communities originally adapted to the site. Native bunch grasses, which probably originally consisted of purple needlegrass, have long since been replaced with European annual grasses, such as wild oats, foxtail, ripgut and soft chess. In addition, there are a number of other weeds and forbes introduced from foreign countries. These

exotics dominate the ground cover. Most of the pasture land has been considerably altered from a purely natural state. Besides supporting introduced plants, the slopes are compacted and contoured with numerous cattle trails.

Native annual and perennial herbaceous plants are still represented in most grasslands of this type. However, their distribution and abundance are significantly affected by cattle grazing and by competition from introduced plants.

Riparian - The riparian belt along the Salinas River differs distinctly from the vegetation found on the rest of the Las Palmas property. It is buffered by a zone of agricultural land which separates it from the balance of the land.

The only endangered plant species expected to exist on the property is Delphinium hutchinsonae, which inhabit the steep slope at the extreme west boundary above River Road among the oaks and buckeye. None could be observed or identified when the field survey was conducted.

The River Road ADC (Excluding Las Palmas Ranch)

The undeveloped portions of the River Road ADC remain in open grassland with scattered stands of oak and brush. The approximate 77 acre Parcel "C" at Pine Canyon Road is planted to row crops. For the developed portions, vegetation has largely been removed and urban landscaping substituted.

IMPACTS

Las Palmas Ranch

Either plan alternative for Las Palmas will minimally impact vegetation. The greatest impacts would be the possible removal of mature oaks during construction and the danger of wildfire brought about by human activity in chaparral and grassland areas. Specimen trees could be damaged if development occurs too close to their root structures. It can also be expected that introduced flora

will flourish at the expense of some highly adapted natural types. Some oaks, for example, do not tolerate summer wetness around root areas.

In addition, changes in livestock grazing may create impacts. If livestock are permanently removed, an increase in chaparral and oak woodland could be expected since seedlings would not be grazed. As this vegetation grows, there will be less water in intermittent stream channels because immediate subsurface percolation will be taken by growing plants resulting in evapotranspiration.

The River Road ADC (Excluding Las Palmas Ranch)

Other than impacts identified above, no significant effects are expected as a result of development within the River Road ADC.

MITIGATION MEASURES

1. New development within the River Road ADC should include a tree preservation policy with criteria established for identifying specimen trees.

2. Areas of important vegetation or wildlife habitat should be preserved. This may require a program of controlled burn and/or continued mmanaged grazing to maintain the balanced ecology of open space areas.

2.5.2 Wildlife

SETTING

Las Palmas Ranch

Mammals and birds on the Las Palmas property are species adapted to open grassland and terrain and grazing pressure or, they are transients spending only a part of their time on the property. Various species of birds may use the oaks for nesting sites during the spring and as feeding grounds the remainder of the year. Migratory species would be present only temporarily. Permanent residents include smaller mammals such as rodents and reptiles. No probable habitat for amphibians is apparent except within and near the Salinas River riparian zone,

and possibly by a spring in the ravine behind the house. Habitat appears ideal for seed-eating birds such as doves and quail; woodpeckers may also be evident due to the number of dead or old oaks.

No population of endangered mammal, bird, reptile or amphibians are expected nor were any discovered in the field surveys conducted for The Las Palmas Ranch Environmental Resources Inventory.

The River Road ADC (Excluding Las Palmas Ranch)

Animal habitats are similar to Las Palmas in the undeveloped portions of the River Road ADC. No migratory routes are known to exist across River Road ADC properties from the uplands to the Salinas River.

Within developed areas, including land in agricultural production, major wildlife habitat has been removed and species are limited to birds and burrowing animals with occasional visits by permanent wildlife species from nearby open lands.

IMPACTS

Either alternative plan for Las Palmas will maintain substantial area in open space, including the site's most important habitat areas. With any development in the River Road ADC, however, the range of wildlife will be narrowed. Most affected will be species which do not adjust well to urban development. These include hawks, foxes, deer, skunks, and coyotes. Animals that do not adjust well, or whose habitat is removed, will relocate to open lands to the south and east; this type of relocation usually creates an ecological imbalance in habitat on those properties and result in a reduction in wildlife numbers over time.

Human developments bring pets. Two major impacts are the destruction of wildlife by ferral animals and the possibility of rabies contraction. Monterey

County is a rabies endemic area and domestic animals and people suffer illness and occasional death from rabies annually.

MITIGATION MEASURES

1. New development in the River Road ADC should maintain important habitat areas in permanent open space. The large portions of Las Palmas Ranch and Toro Vista which are proposed as open space will ensure that many wildlife species will remain on the properties. Open space areas should include grassland, woodland, chaparrel, and riparian habitat.

2. Control of domestic pets should be encouraged in all new developments through a public education program conducted through a Homeowner's Association. All pets likely to come into contact with wild animals should be vaccinated for rabies.

3. The proposed management program for the open space should express the goals and then the activities and responsibilities needed to achieve those goals. The plan for management of open space and improvement of habitat values should begin concurrently with the first implementation phase. This program should be approved by the County of Monterey after approval by experts in the field of rangeland ecology.

2.6 AESTHETICS

2.6.1 VISUAL SETTING/IMPACTS

Las Palmas Ranch

1. The view from Salinas Valley to the lower levels of the site is dominated by the Spreckels Sugar Plant with a sweeping panorama of gentle rolling hills and woodlands beyond. Development of either alternative plan would have little effect on the view. Lower reaches of the site, where higher densities are proposed, are not visible from the valley.

Both alternative plans protect the view of the ridge lines as seen from the valley by not proposing development on the north side of these ridges. A possible area of concern is the southeast portion of the site which is a gently sloping area rising about 200 feet in elevation above River Road. This area is proposed for lower density, single-family development on both alternative plans. Units could be visible from the valley especially at night depending on light controls and during the day depending upon roof materials.

2. The site is blessed with on-site views of the Salinas Valley, the Gabilan Mountains to the east as well as local ridgelines. Development, especially at clustered densities as high as those proposed, has the potential to disrupt the scenic quality of the site and to create structural elements not in harmony with the natural surroundings.

3. Highway 68 is a designated scenic highway from Route 1, in Monterey, to the Salinas River. Very little of the property is visible from the designated scenic portion of the highway, especially west of the River Road interchange. The Corey House can be partially seen from the Salinas River Bridge and it can be expected that residential units surrounding the home would also be partially visible to the highway traveler. Given the distance from the highway (3/4 of a mile) and the level of development envisioned by the adjacent Toro Vista development, visual impacts on scenic Highway 68 are insignificant.

4. Views from River Road can be expected to change from the existing open land/agriculture to a more urban setting softened by landscaping, entry way treatment, and architectural control. While the project can be screened from view from the Salinas area by natural landscape features

and ridgelines, total screening is not possible from the River Road traveler. Apartment/condominium and commercial development will be visible from the roadway corridor, especially in the short term until buffer landscaping matures. Much of the scenic open quality of River Road corridor will be altered with development.

The River Road ADC

The potential visual impacts of development of the Pine Canyon Estates, Vista Del Rio subdivisions, and the Toro Vista area were discussed at length in the EIR's prepared for these projects. Areas "A" and "B", the only other portions of the River Road ADC subject to development, are hillside sites which could significantly impact the visual quality of the view from River Road.

MITIGATION MEASURES

1. Both alternative plans propose to provide architectural and landscaping controls (including lighting), to provide a project in harmony with the natural environment. These measures should include tree preservation; the use of natural colors and compatible building materials, and the establishment of a Design Control/Design Reviewer Committee which would be empowered by the by-laws of the Homeowners Association. Locational criteria outlined in each plan and the above measures should reduce on-site visual impacts.

2. The following measures, taken from the Monterey County Scenic Highway Element, should be applied to the River Road Corridor.

   a. All new utilities should be placed underground.

   b. Restrict outdoor advertising.

   c. The minimum 50 foot buffer adjacent to River Road on the south should contain natural area native plants where possible; insure that a maintenance entity exists for long-term landscaping needs through a Homeowners' Association.

   d. Directional signs should be small and unobtrusive.

e. Guard rails and fences should blend with the landscape, and low intensity colors such as greys and browns should prevail.

f. Where possible, frontage roads should not parallel River Road.

3. The following standards should be applied to all new development in the River Road ADC:

a. Houses on exposed valley sideslopes or plateau edges shall be screened by planting informal tree masses of native species.

b. No development will be allowed on prominent ridgetops.

c. Residential units located adjacent to county roadways and along the edge of upper terraces shall be limited to the height equivalent of a one-story structure.

d. Preservation of natural features (such as significant tree groves or individual trees) shall be maximized.

e. Roadway alignment shall follow and blend with the topography and shall not exceed 15 percent grade.

f. A variety of native species should be planted in informal masses at frequent intervals along the streets and within private and public spaces within the residential complexes.

g. All cut and fill embankments shall be replanted with native trees and groundcovers similar to existing vegetation in the immediate area.

h. Street lighting should minimize glare or should not exist at all, in order to preserve the rural/residential character of the area.

4. Hilltop development in Areas J and K of the ADC Policy Plan should be added to open space if design review shows that they would create an unacceptable visual impact.

2.6.2 Noise

SETTING

The primary noise sources in the Las Palmas Ranch vicinity are the operation of farm equipment and the traffic on River Road. The impact on residents is considered minimal as the area is sparsely populated and the traffic is light.

For properties east of Las Palmas Ranch, the existing noise environment is typi-

cal of a rural area. For Toro Vista, noise is primarily generated by traffic on Highway 68. Noise measurements projected by CalTrans in 1979 indicate that unshielded areas within 134 feet of the Highway would be subject to noise levels 65 L_{dn} or greater. Noise levels of 60 L_{dn} or greater would occur within 288 feet of the roadway. (L_{dn} is a measurement of the total noise environment for an entire day, with a weighting factor added to noise occurring between 10:00 p.m. and 7:00 a.m.)

There are a number of different standards used for evaluating the effect of noise upon residents. State standards recommend a maximum of 60 CNEL for outdoor and 45 CNEL for interior noise exposures. Maintaining interior noise levels at 45 CNEL is considered the more critical of the two noise conditions (interior and exterior). For planning purposes, CNEL and L_{dn} are considered equivalent. The Monterey County Housing Element recommends an outdoor level of 55 L_{dn}.

Generally, conventional construction provides sufficient insulation to effect a 15-20 decibel reduction between outdoor and indoor noise levels. Thus, in an area exposed to 65 CNEL, although the recommended standard for outdoor noise levels (60 CNEL) would be exceeded, indoor levels would still be acceptable (45 CNEL). However, in areas where outdoor noise exceeds 65 CNEL, additional noise attenuation measures would be necessary to insure acceptable interior noise levels.

IMPACT

Ambient noise levels within developed areas will rise to levels typical of an urban setting; these noises are generally accepted by residents as part of the normal living environment.

Short-term noise impacts would occur as a result of on-site construction

activities. The intensity of noise would decrease with distance such that impacts on nearby residential areas would not be significant.

Once construction is complete, the major noise source will be auto traffic on River Road. For purposes of the EIR, the ADC Policy Plan is analyzed as a worst case. The 1995 traffic projection for River Road is 18,000 vehicles per day past the site. In an urban setting, a 2-4 lane roadway with similar traffic would be expected to generate noise levels of approximately 65 CNEL at the roadway's edge.(1) For an unobstructed site (without swales or other landforms) the 65 CNEL contour would extend 50 feet into the site. Noise levels of 60 CNEL or greater could be expected within 100 feet of the roadway; the 55 CNEL contour would extend an estimated 200 feet into an unobstructed site.(2)

This indicates that living units constructed closer than 135 feet of River Road would not meet state recommended outdoor levels. Because dwelling units themselves, once in place, act as noise buffers, concern must be for initial building setbacks and attenuation measures for those units closest to the roadway.

Both plan alternatives propose a 50 foot landscaped setback adjacent to River Road. If implemented, this measure should insure that no units are constructed within the 65 CNEL area. As a result, indoor levels of 45 CNEL should be maintained with normal construction techniques.

Noise levels are not expected to be significant adjacent to River Road east of Las Palmas in that 98% of Las Palmas traffic would be westbound for Highway 68. Parcels "A" and "B" in Exhibit 1.2 are also more than 2000 feet from the roadway, a factor which further mitigates potential noise impacts.

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(1) Bolt, Beranck and Newman, "Fundamentals and Abatement of Highway Traffic Noise", NITS, 1973.

(2) Ibid.

When the Toro Vista portion of the River Road ADC is fully developed, the projected 65 CNEL contour parallel to Highway 68 will extend 273 feet into the property, the 60 CNEL contour will extend 566 feet and the 55 CNEL contour will extend 900 to 1000 feet.

MITIGATION MEASURES

Improved automobile technology and noise standards of the California Vehicle Code will reduce future vehicle noise levels. These factors, combined with the widening and resurfacing of major roadways and other traffic flow improvements will further reduce vehicle noise.

1. The recommendations of both the Existing Policy Plan and the ADC Policy Plan for a 50 foot landscaped setback adjacent to River Road will assure an acceptable indoor noise level for even the closest units to the roadway.

2. Within 100 feet from River Road, outdoor noise levels will exceed 60 CNEL. Potential adverse effects can be mitigated by requiring a minimum building setback corresponding to the 60 CNEL contour. An alternative would be an informal meandering system of earth berms within the 50 foot setback area.

   The geometry of the earth berm determines its effectiveness as a noise barrier. They must be constructed so as to block the line of sight between the noise source and the noise receiver. A properly designed berm could achieve a 10dB reduction.

3. Noise attenuation measures should be provided for all structures located within the 65 CNEL noise contour.

4. An acoustical engineer should be retained by the Toro Vista developers to determine the type and specifications of appropriate sound reduction

barriers to achieve an indoor level of 45 CNEL. Consideration should be given to the aesthetic character of any proposed noise barriers to ensure preservation of the scenic quality of Highway 68.

5. The recommendations in the Toro Vista Specific Plan for providing visual and noise buffers in Development Units B and E should be implemented. The measures include earthen berms, extensive landscaping, and a 100 foot building setback from the Highway 68 right-of-way.

2.7 TRAFFIC

SETTING

In January, 1981, Wilsey and Ham of Foster City, California prepared a traffic study for Las Palmas which is incorporated here by reference and is on file with the County Planning Department. The Final EIR for the Toro Vista Specific Plan provides supplemental information. The existing traffic setting is summarized as follows:

Regional access to the River Road ADC and Las Palmas Ranch is provided by State Highway 68, which connects with U.S. Highway 101 to the east and State Route 1 to the west and is a state designated scenic highway. Highway 68 is a four-lane facility between River Road and Blanco Road to the east. East of Blanco Road, Highway 68 becomes South Main Street, a four-lane arterial roadway. West of the River Road interchange, past Toro Vista, the highway narrows to a two-lane facility with direct access from abutting streets.

Local access is provided by River Road, a two-lane roadway that follows the northern boundary of the River Road ADC. The paved width of River Road varies between 36 and 40 feet, with unpaved shoulders in some areas.

A traffic count program was conducted to determine daily and peak-hour volumes, directional patterns of traffic flow, and to obtain trip generation factors for existing developments. Both automatic traffic counters and manual counts were taken in the project vicinity. The results of this count program are shown in Exhibit 2.8.

Daily and peak-hour traffic volumes in the vicinity of Las Palmas Ranch were obtained by Wilsey & Ham and Caltrans during October and November, 1980. As would be expected, the heaviest volumes occur along Highway 68, north of River Road, where daily traffic reaches 22,000 vehicles. This is well below the capacity of a four-lane freeway, which is approximately 60,000 vehicles per day (vpd).

Current traffic levels on the two lane portion of Highway 68 past Toro Vista, however, exceed what is considered by the Monterey County Department of Public Works as a generally acceptable capacity for a two-lane highway: 9000 vehicles per day or 900 vehicles per hour for service level "C" operation.(1) Traffic counts provided by CalTrans indicate the following volume increased over the past four years along Highway 68 between River Road and San Benancio Road.

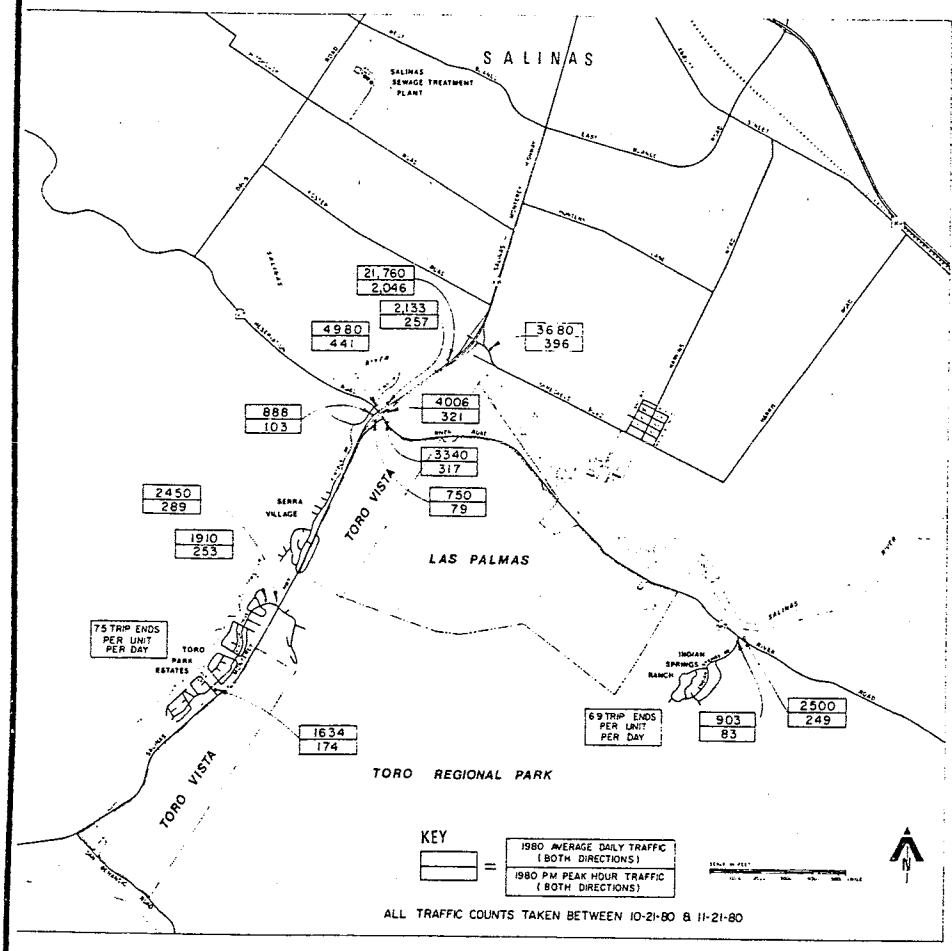
Highway 68 Volumes

between River Road and San Benancio Road

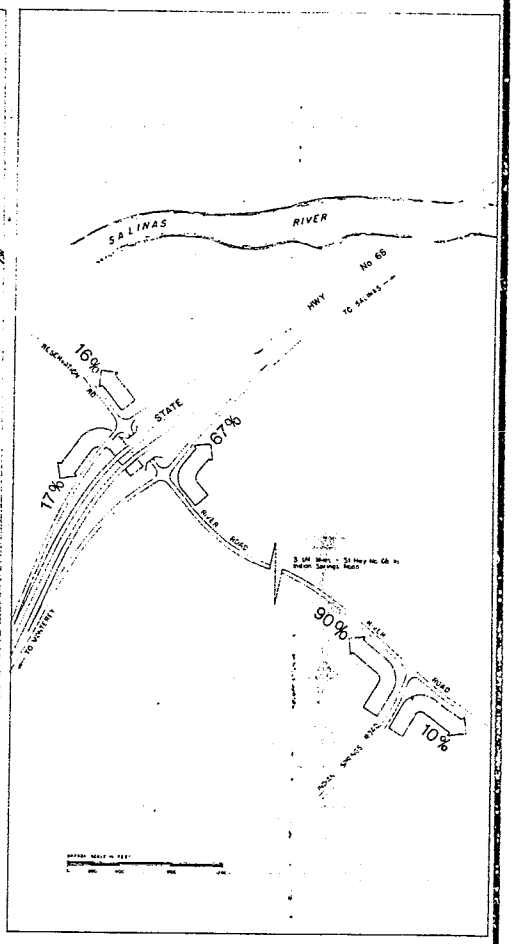
1976	1979	1980
14,700	16,900	17,100

Forecasts in the Monterey County Transportation Plan indicate that major improvements to Highway 68 will be needed. The recommended capital program

(1) Service level "C" provides stable flow, at relatively high speeds, but may restrict some drivers' freedom to select their own speed. It is the desirable level to be obtained and maintained as outlineed in the Goals, Objectives and Policies of the County Transportation Plan.



October 1980 Traffic Counts



Directional Split Data For Indian Springs Morning Peak Period Traffic

1980 Traffic Volumes and Directional Split Data

Source:

Las Palmas Ranch

Traffic Study

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

GRUNWALD CRAWFORD ASSOCIATES

indicates construction of a freeway between Route 1 and River Road. However, funding for this freeway is not on CalTrans' 5 year improvement schedule.

Plan lines for a proposed Route 68 freeway have been established by CalTrans and adopted by Monterey County. Traffic forecasts for 1995 indicate that major improvements will have to be made to Route 68 where it is presently a two-lane road. If it is developed as a four-lane freeway, the estimated traffic for 1995 would not exceed freeway capacity.

Daily volumes on local streets in the vicinity of Las Palmas are well below the capacities of these facilities. The daily capacity of a two-lane collector street is approximately 14,000 vpd. These data indicate that with the exception of the two-lane portion of Highway 68, traffic flow is good in the project vicinity during all parts of the day, and that little or no delays are experienced by motorists.

Directional patterns of traffic generated by the Indian Springs Subdivision were also obtained by Wilsey & Ham. The Indian Springs Subdivision, with 131 single-family units, is located on River Road, approximately one-half mile southeast of Las Palmas Ranch.

Similar travel patterns could be expected for the Indian Springs Subdivision and Las Palmas Ranch. The primary direction for morning commute traffic from the Indian Springs Subdivision is north on River Road toward the Monterey-Salinas Highway and east toward the City of Salinas.

IMPACTS

In the Wilsey and Ham Las Palmas Traffic Study, the following development factors were assumed: 700 single-family units, 880 multi-family units and commercial development around the Corey House with approximately 33,000 square feet of

floor area. Using these factors, a "worst case" analysis of traffic impacts was performed.

As an initial step, a traffic count program was undertaken to determine trip generation factors for residential developments in the site vicinity. Automatic counters were placed at the entrances to the Indian Springs and Toro Park Estates Subdivisions. Toro Park Estates, with 474 single-family units, is located along Highway 68, approximately one mile west of Las Palmas Ranch. Based on these traffic counts and information on the number of units in each subdivision, trip generation factors were obtained.

Indian Springs generates approximately 6.9 trip-ends per unit per day while the Toro Park Estates Subdivision generates 7.5 trip-ends per unit per day.(1) As these subdivisions are close to Las Palmas Ranch, they are expected to have similar trip generation characteristics. To allow for minor variations in the results, a generation factor of 7.5 trip-ends per unit per day was chosen for future single-family units of Las Palmas.

Trip generation factors for multi-family units and commercial facilities were obtained from Trip Generation, Institute of Transportation Engineers, a standard reference. The value for trip generation from multi-family units is 6.0 trip-ends per unit per day. Commercial facilities are expected to generate 116 trip-ends per day per 1,000 square feet of floor area. It is estimated that approximately 50% of the trips generated by commercial facilities at Las Palmas Ranch will remain within the project boundaries and will not add to external traffic volumes.

1995 traffic volumes in the vicinity of Las Palmas were then quantified to indi-

(1) A trip-end is defined as a trip which either originates or terminates at a given location. Total trip-ends are generally double the amount of round trips.

cate the effect of the ADC Policy Plan on future traffic conditions. The following assumptions were utilized in developing these 1995 volumes:

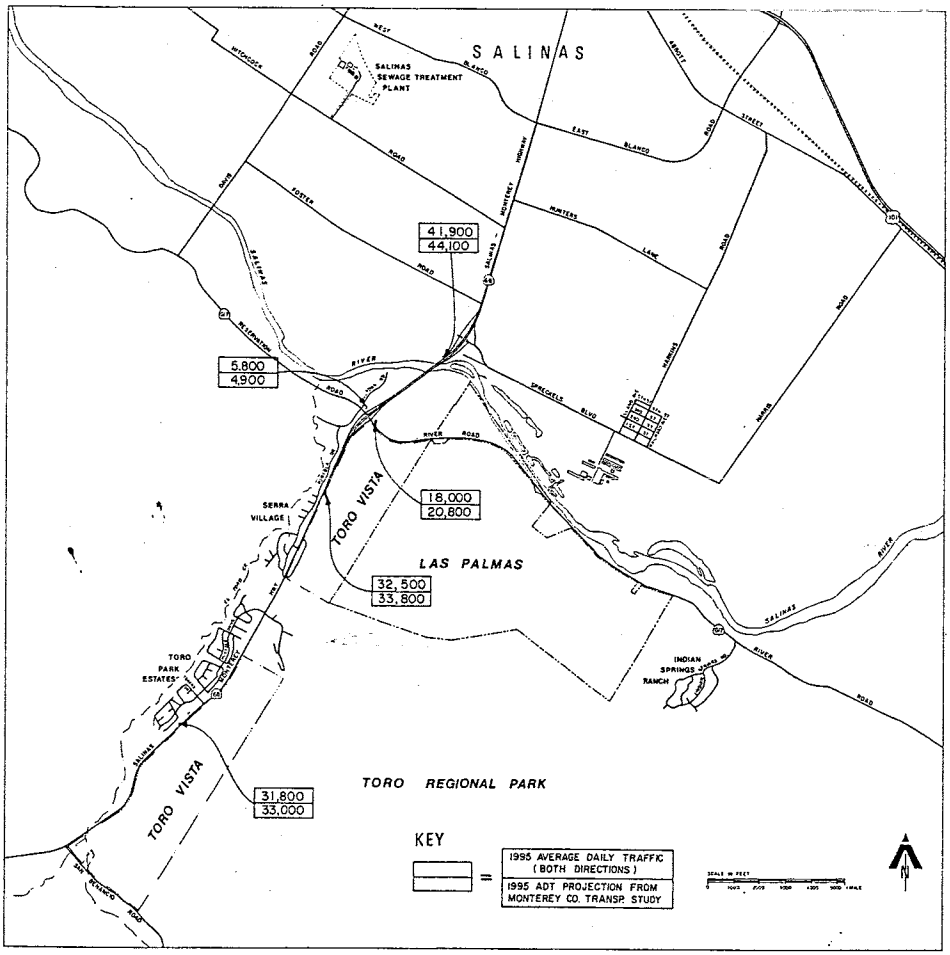
- The trip generation rates for single-family and multi-family units at Las Palmas will be 7.5 and 6.0 trip-ends per unit per day, respectively. Commercial facilities will generate daily traffic volumes at a rate of 116 trip-ends per 1,000 square feet of floor area.

- The directional split for project generated daily traffic would be 97.6% toward Highway 68 and thence, 72.5% toward Salinas. These daily directional split values were taken from the Monterey County Transportation Study because they are in substantial agreement with the peak-hour values obtained during the manual traffic counts done as part of this study.

- The baseline (without Las Palmas) 1995 traffic volumes on roadways in the project vicinity are based on the "H" Network adopted in the Monterey County Transportation Plan. Traffic volumes generated by Toro Regional Park and the proposed Toro Vista development are included in these 1995 projections.

The above trip generation assumptions were applied to the ADC Policy Plan to yield 1995 traffic volumes shown in Exhibit 2.9. The total trip generation attributable to the ADC Policy Plan is approximately 12,300 trip-ends per day.

The most significant increases in traffic volumes caused by the ADC Policy Plan would be on River Road, south of Highway 68, and on the eastbound on-ramps and westbound off-ramps at Highway 68. The 1995 projection for daily traffic from all sources on River Road is 18,000 vpd. The ADC Policy Plan would account for approximately two-thirds of this total.



1995 Projected Traffic Volumes

Source: Las Palmas Ranch Traffic Study

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

GRUNWALD CRAWFORD ASSOCIATES

As the capacity of River Road is approximately 14,000 vpd, some improvements to this facility would be necessary. Without such improvements, traffic congestion could be expected during the morning and afternoon commute periods.

Level of service (LOS) analysis was performed at the intersections of the freeway ramps with River Road, using projected 1995 traffic volumes. Levels of service are qualitative descriptions of traffic flow characteristics, ranging from LOS A, free-flow, to LOS F, forced-flow.

The LOS analysis, based on the ADC Policy Plan, indicates that the intersection of River Road with the eastbound ramps would operate at LOS D (unstable flow) during the 1995 morning peak period. This would result from the large number of vehicles turning onto the eastbound on-ramp from the north and south. The intersection of River Road (also called Reservation Road at this location) and the westbound ramps is projected to operate at LOS E (capacity) during the 1995 afternoon peak period. This would result from the vehicles (approximately 1,000) turning left from the westbound off-ramp to southbound River Road. A large number of vehicles could be expected to queue on this off-ramp during the afternoon peak period. Traffic volumes along River Road during non-peak periods would be below the capacity of this facility and the LOS would be C (stable-flow) or better.

The preceding capacity and level of service analysis indicate that various roadway and intersection improvements will be needed along River Road as a result of the development of Las Palmas Ranch. It remains for subsequent analysis to determine what the nature of these improvements should be.

There would be a cumulative 1995 impact on Highway 68, west of River Road (on the two-lane section), caused by general growth of the community and all new developments. The ADC Policy Plan would contribute approximately six percent to

the total projected 1995 traffic volume for this segment of Highway 68. There would be no significant effects on the four-lane section of Highway 68, east of River Road. The project will add to the cumulative congestion at the Highway 68/Blanco Road intersection. The total 1995 projections for this location of 41,900 ADT (both directions) are well below the capacity of 60,000 vpd. This means that the ADC Policy Plan would not, by itself, necessitate any road widening along Highway 68 (either east or west of River Road).

An additional traffic generator in the ADC Policy Plan not included in the Wilsey and Ham report is the 3 acre neighborhood shopping center proposed near the eastern entrance to the site. The 3 acre site could accommodate an estimated 30,000 square feet of retail floor space. At 116 trips per 1000 square feet per day, 3,480 trips per day could be expected at full development. If the assumption is again used that 50% of the generated traffic will come from within the project, an additional 1,740 trips per day will be generated, bringing total project traffic to 14,040 trip-ends per day. Nearly all these would involve River Road.

This shopping center will further impact River Road, primarily by increasing the number of turning movements into and out of the site. Given the center's location, shown on the ADC Policy Plan, it will also bring outside traffic through a an essentially large residential neighborhood.

It should be noted that the total trip length for off-site area residents using the commercial center will be shorter than traveling outside the area to shop.

Because the Existing Policy Plan would allow a magnitude of development less than half that of the ADC Policy Plan, traffic impacts can also be expected to be less than half. For purposes of analysis, the same ratio of single-family to multi-family units is assumed as for the ADC Policy Plan and the same generation

factors are used. The Existing Policy Plan would also contain approximately 33,000 square feet of commercial floor space around the Corey House, but would not have a neighborhood shopping center; 50% of commercial traffic would be from outside the project. The following average daily trips would result:

44% single-family x 720 units = 318 units x 7.5 ADT/unit	= 2,385 ADT
56% multi-family x 720 units = 402 units x 6.0 ADT/unit	= 2,412 ADT
33,000 square feet x 116 ADT/1000 square feet divided by 2	= 1,914 ADT
	6,711 ADT

The directional split used for the ADC Policy Plan can also be applied to the Existing Policy Plan (97.6% toward Highway 68 and thence, 72.5% toward Salinas). The following impacts would result:

1. Average daily traffic on River Road in 1995 would be 12,400 vehicles compared to over 18,000 with the ADC Policy Plan. Las Palmas would account for about 54% (6,700 divided by 12,400). This expected level is below the existing design capacity of River Road (14,000). As a result, Level of Service "C" could likely be maintained.

2. The Existing Policy Plan would contribute about 3% of the total daily traffic to Highway 68 on the two lane section west of River Road.

3. It is estimated that the Level of Service for Highway 68 ramps would be one level below that of the ADC Policy Plan in 1995. That is, Level C for the intersection of River Road with the eastbound ramps, and Level D for the westbound ramps at River Road.

In summary, a comparison of the two plans for Las Palmas Ranch in terms of traffic impact shows that the Existing Policy Plan would generate about 52% less traffic than the ADC Policy Plan (6,700 ADT versus 14,040 ADT). Also, the LOS on River Road and the Highway 68 ramps by 1995 (with no additional improvements), would be at least one level of service better with the Existing Policy

Plan than with the ADC Policy Plan.

The Monterey County Department of Public Works responded to the Wilsey & Ham traffic study report with two major concerns:

1. "The results of our trip generation study produced trip generation figures of 7.0 trips per day per unit for Indian Springs, and 8.0 trips per day per unit for Toro Park Estates, with a weighted average of 7.8 trips per day per unit. As a result, we recommend that a figure of 8.0 trips per day per unit be used." (Letter dated April 21, 1981)

2. "The Monterey County Transportation Plan has established level of Service C as a goal (rather than E or F as suggested in the study) for County Roads. We, therefore, feel that those roads which are currently at, or above, level C should not be allowed to decline below level C, and that lesser existing LOS's be preserved. Any improvements to the roadway required to maintain those levels of service as a result of Las Palmas Ranch would be the responsibility of the Las Palmas Ranch developers." (Letter dated October 28, 1981)

In response to the first concern above, using the traffic study figure of 700 single-family units in the ADC Policy Plan and the County-recommended trip generation factor of 8.0 trips/day/unit, total project generated trip-ends would increase by 350 per day [700 x (8.0 - 7.5)] or about 2.3% of total project traffic. For the Existing Policy Plan, the increase would be 159 trips per day, or 2.4% of total project traffic. These increases are negligible and would not alter identified Levels of Service or other findings of significance. The fact remains that either alternative will significantly impact existing roadways and will contribute to cumulative declines in traffic service.

Answering the second concern, LOS C is attained in very few urban settings, especially during peak periods. Levels of service at the access ramps of Highway 68 to and from River Road can be expected to deteriorate over time to the levels projected by the report. LOS D for a freeway on-ramp during short periods is not unusual in an urban setting and is considered an unavoidable impact if the project is approved.

MITIGATION MEASURES

1. If the ADC Policy Plan for Las Palmas is approved:

   a. In order to maintain LOS C after 1995, River Road should be constructed to major street status (84 foot right-of-way, four lanes) from the Corey Home entrance to the Highway 68.

   b. River Road should be constructed to secondary street status (60 foot right-of-way, two lanes) from the Corey House entrance to the eastern property line.

   c. Right and left turns should be constructed on River Road approaches to the three site entrances.

   d. Left turn approaches should be striped on River Road approaches to northbound and southbound off-ramps to Highway 68.

2. If the Existing Policy Plan is approved:

   a. River Road should be constructed to secondary street status (60 foot right-of-way, two lanes) from the eastern boundary of the Las Palmas Ranch to the Highway 68.

   b. Measures (C) and (D) from the ADC Policy Plan above should be instituted.

3. Right and left turns on River Road approaches should be constructed at Entrance Areas A and B in Toro Vista, and the entrances to Rio Vista, Indian Springs and the Pedrazzi subdivisions.

4. The State and County should construct Highway 68 to four lanes between River Road and Highway 1. To this end, new development which would directly impact traffic on this segment (and which would directly benefit from its improvement) should be included in "zones of benefit"

established by the Board of Supervisors. The Board should direct the Department of Public Works to work with CalTrans and individual applicants within these zones to determine the level of improvement necessary, available state financing and a fair share formula for all future developers to pay into an improvement fund.

2.8 AIR QUALITY

SETTING

The proposed River Road ADC lies within the North Central Air Basin which includes Monterey County, Santa Cruz, and San Benito Counties. Within the Salinas Valley area, approximately one half of all pollutant emissions are attributable to vehicular traffic.

Presently, air quality in the Valley area is good due to its geographic location and exposure to periodic strong winds. However, temperature plays a critical role in the maintenance of acceptable air quality in the Valley. Generally, when standards are exceeded, it can be correlated to the occurrence of a temperature inversion which prohibits dispersion of pollutants.

The nearest monitoring station to the project site is the Monterey Bay Unified Air Pollution Control District, located in north Salinas. Five major air pollutants are monitored: Carbon monoxide (CO); sulphur dioxide (SO_2); nitrogen dioxide (NO_2); oxidant; and total suspended particulates (TSP).

Of these five, only photochemical oxidant exceeded State and Federal standards within the last three years. As a result, Monterey County was classified a "nonattainment" area by the California Air Resources Board and the U.S. Environmental Protection Agency. In 1980, the Federal standard for ozone (oxidant) was relaxed from 0.08ppm to .12ppm. However, as of this writing, Monterey County is still designated a non-attainment area for ozone.

A non-attainment Air Quality Plan has been prepared by the Association of Monterey Bay Area Governments (AMBAG) in conjunction with Monterey Bay Unified Air Pollution Control District. The Plan recommends general measures and policies regarding control of traffic flow; extension of public transit systems and other alternatives to commuting by private car; and the utilization of land use controls such as encouraging infill and creating balanced communities in terms of the jobs/housing ratio. Implementation of the Plan is the responsibility of appropriate local agencies. The Plan recommends that all large developments be reviewed by AMBAG, using the A-95 clearinghouse review process. This Draft EIR will also be referred to AMBAG for comment.

IMPACT

The primary air quality impact which would occur as a result of Las Palmas development would be the cumulative increase in existing air pollutants generated by vehicular traffic. This would be true of either alternative plan. While Las Palmas project traffic alone would not have a significant effect upon existing air quality, it would add, on an incremental basis, to the overall degradation of air quality in Monterey County.

Table 2.5 contains an analysis of project auto emissions while Table 2.6 shows the effect of those emission rates on basin-wide emissions.

These projected impacts do not consider changes in travel habits brought about by increasing gasoline prices or the likelihood that travel distances will decrease as urbanization occurs and services and employment are located closer to residential areas. It can also be expected that overall mobile source emissions will decline as a result of mandatory controls on new autos, the phasing out of older, higher polluting autos and the substitution of alternate forms of transportation over time.

TABLE 2.5

PROJECT EMISSIONS

Pollutant Type	ADT Existing Policy Plan	ADT ADC Policy Plan	Avg. Miles/ Trip	Emission[2] Factor (gm/mi)	Total Emissions Existing Policy Plan (gm/d) (tons)	Total Emissions ADC Policy Plan (gm/d) (tons)
Hydrocarbons	6653	12,300	12	3.6	287 K (.3)	531 K (.6)
Carbon Monoxide	6653	12,300	12	36.7	2930 K (3.2)	5417 K (5.9)
Nitrogen Oxides	6653	12,300	12	2.7	216 K (.2)	398 K (.4)

1. Calculations based upon following assumptions:

   a) Average vehicle speed of 19.6 mph (accounts for start-ups and stops, which generate the greater amount of traffic related air pollutants)

   b) Average temperature of 75° (F)

   c) % cold starts - 20.6; % hot starts - 27.3

   d) Average miles per trip based upon the following traffic flow assumptions:

      - 70% of project traffic would travel to/from (Salinas (8 miles, RT)
      - 15% of project traffic would travel to/from Monterey (22.4 miles, RT)
      - 10% of project traffic would travel to/from Fort Ord (13.6 miles, RT)
      - 2% of project traffic would travel along River Road (average of 20 miles, RT)
      - 3% of project traffic would travel locally to nearby commercial areas, or the proposed on-site recreation facilities (average of 6 miles, RT)

2. Based on 1985 car model year. Assumes a mix of new year and old year car models.

Source: Draft EIR, Subsequent EIR, Toro Vista Specific Plan, Williams, Plazek & Mocim, November 1980, and Grunwald Crawford & Associates.

Table 2.6 shows that the percentage increase in the amount of each pollutant generated by the ADC Policy Plan is about double that shown for the Existing Policy Plan. With either alternative, the project emissions and the basin-wide emissions can be expected to decline in the same ratio.

TABLE 2.6

PROJECTION OF AIR POLLUTION EMISSIONS
(Average Emission Levels, tons/day)

Pollutant	Current Conditions(1)	With Existing Policy Plan	% Inc	With ADC Policy Plan	% Inc
Hydrocarbons	22.5	22.8	1.3	23.1	2.7
Carbon Monoxide (CO)	147	150.2	2.2	152.9	4.0
Nitrogen Oxides (NOx)	18.4	18.6	1.1	18.8	2.2

(1) Monterey Bay Unified Air Pollution Control District (1977).

Source: Grunwald, Crawford & Associates

The above figures do not imply that existing pollutant levels in Monterey County would be immediately increased by the indicated percentage. Because pollutants are windborne, they can be distributed over a wide area. Thus, it is possible that the source area may only be marginally affected by the increase in pollutant emissions. However, the figures do provide an indication of how air quality may be affected basin-wide. Although the Las Palmas project would have an insignificant effect on existing air quality in the immediate vicinity, when considered cumulatively basin-wide it may be more significant.

MITIGATION MEASURES

The AQMP/NAP remains the best opportunity for promoting basin-wide air quality

improvement strategies. As specified in the AQMP/NAP, Las Palmas should be considered to the extent that it promotes AMBAG policies regarding infill and/or contiguous buildout development, and the provision of a balanced mix of residential and employment opportunities in new development areas. Both alternative plans for Las Palmas promote a mix of residential units at higher densities in new areas of concentration which decrease auto travel compared to a lower density alternative by decreasing the need for even more remote development to most housing needs. The proposals do not represent contiguous buildout or in-fill development in relation to Salinas but they do support AMBAG policies in terms of the long-range buildout of the Toro Area.

Public transit service should be provided to the project site. Bus stops could be located at the proposed project entrances along River Road. Walkways should be provided from residential areas to the transit stops, schools, recreation sites and community service centers.

An integrated system of bicycle path and walkways should be incorporated into the final project design. These pathways, which would link residences to the proposed school site and local shopping and recreational areas, should include an alignment along the south side of River Road.

2.9 PUBLIC SERVICES AND UTILITIES

2.9.1 Wastewater Management

SETTING

Las Palmas Ranch

Existing residences at Las Palmas are served by septic tanks and leach fields.

River Road ADC

The Indian Springs Subdivision has an on-site package sewer system. The developed Pedrazzi subdivision and approved Vista Del Rio and Pine Canyon Estates

subdivisions are served by, or are planned to be served by, on-site septic tank and leach field systems.

There are no sewer facilities existing or planned for Toro Vista. Salinas Utility Services maintains a treatment plant approximately 1.5 miles to the west of Las Palmas Ranch on River Road. The treatment plant could theoretically serve Las Palmas and Toro Vista projects if facilities and spray fields were expanded. In 1977, the Central Coast Regional Water Quality Control Board issued a Cease and Desist order prohibiting new connections to this system. This prohibition was reimposed on September 12, 1980. It cites, in particular: 1) discharges of raw sewage to the Salinas River, attributed to breaks in the river crossing (the plant is south of the river, and the spray fields north), levee breaks, and leakage; and 2) daily flows exceeding those permitted.

Las Palmas is within the study area used to develop the North Monterey County Facilities Plan, adopted in 1978 by the Monterey Peninsula Water Pollution Control Agency. The Agency, composed of the various sewer agencies in the area, has taken over all treatment and disposal facilities. Maintenance of collection systems remains with the member agencies. By the mid-1980's the Control Agency hopes to complete the regional plant, at which time the Salinas and other existing plants will be converted into sub-units of the regional system. The Facilities Plan sets forth present and projected populations in the Toro area, and indicated this area will eventually be sewered as part of the Salinas area system. Currently, the Salinas plant has limited capacity, and an interceptor is planned for construction to the ocean in 1983.

The State of California Clean Water Grant Program Proposed 1981 Project Priority List contains, at Monterey County's request, an "interceptor to regional system from Toro Park area", which would generally run north from the present Salinas Utility Services plant to join the Salinas interceptor. The Clean Water Grant

would be for up to 87.5% of total costs, with local revenue making up the balance.

IMPACTS

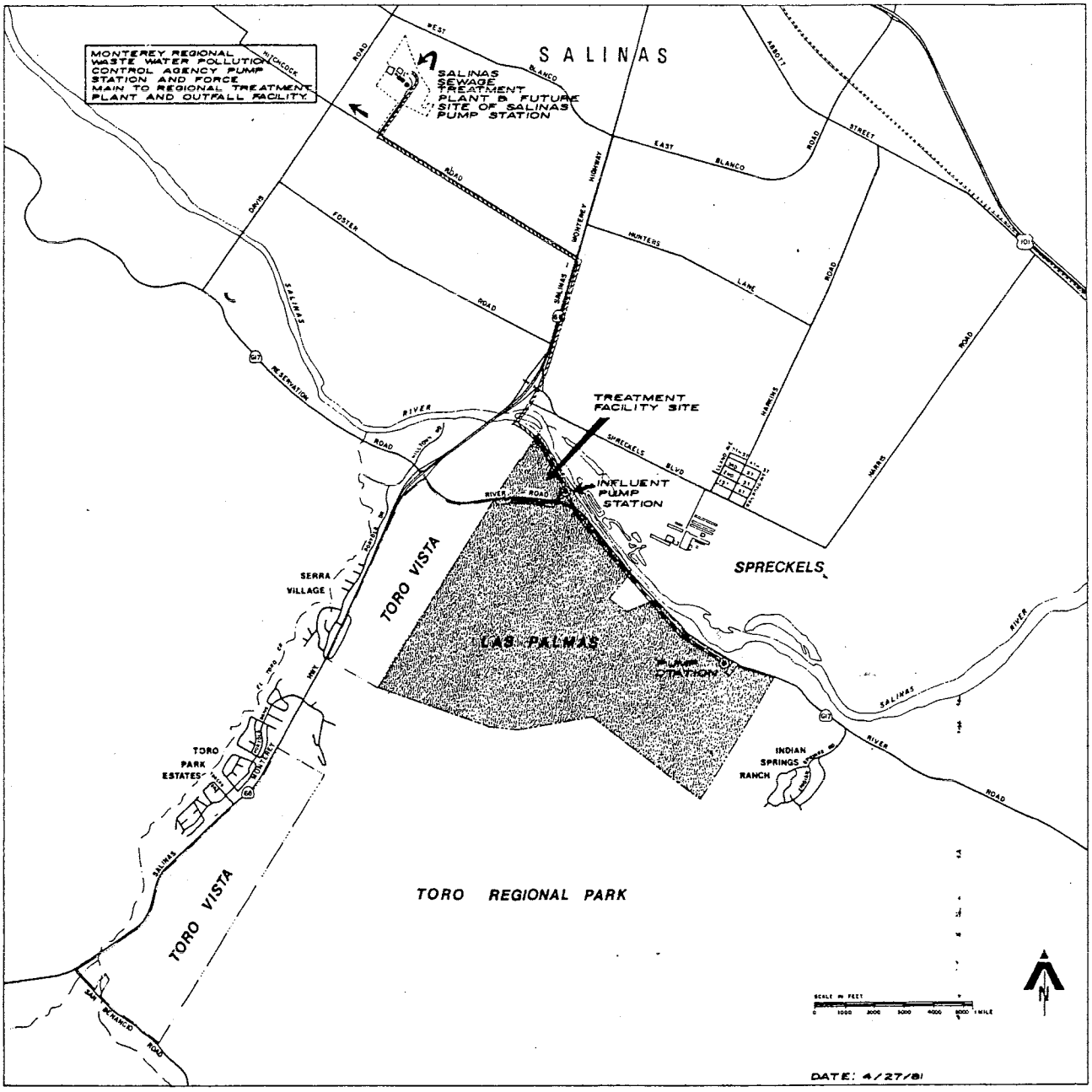
Las Palmas Ranch

In October, 1980, the applicant for Las Palmas Ranch retained the firm of Engineering Science, Inc. of Monterey, to prepare various sewering alternatives for the site and to recommend the design alternative best suited for the needs of Las Palmas and surrounding properties. An impact analysis was prepared based on the level of development shown by the ADC Policy Plan with a buildout population of 4,490 (2.85 persons per household). With flows estimated at 80 gallons/person/day, total treatment capacity required for the ADC Policy Plan would be 359,200 gallons per day (and about 163,800 gpd for the Existing Policy Plan).

As part of the wastewater management study process, three on-site disposal alternatives, four treatment alternatives, and two system alternatives were analyzed. The engineer's best alternative was determined to be an aerated/ faculative pond treatment system incorporating high rate irrigation disposal (flood irrigation).

The wastewater treatment and disposal facilities would be constructed in two stages, which would correspond to the construction and build-out of Las Palmas Ranch. The project design allows for connection to the Regional Wastewater Management System, if and when that system becomes available. The project design facilities shown on Exhibit 2.10 would be located on the northeast portion of the Las Palmas Ranch, north of River Road. Full development of the facilities would require approximately 12 acres for the treatment facility and 40 acres for irrigation with reclaimed water.

EXHIBIT 2.10



SEWER FACILITIES
PRELIMINARY ALIGNMENT OF OF CONVEYANCE SYSTEM

Legend:

STAGE 1

——— Las Palmas Ranch Study Area

STAGE 2

——— Connection to Regional System

* Final Determination of Stage 2 System to be in 1984-1986

SOURCE:

Wastewater Management Study: Las Palmas Ranch

LAS PALMAS

MONTEREY COUNTY, CALIFORNIA

GRUNWALD CRAWFORD ASSOCIATES

This proposed system is not tied in any way to the Salinas Utilities Services area and the design is capable of adaptation to a smaller project or to a larger project depending on the land use plan adopted. The facilities design proposal has been submitted to the County Health Department for their review.

The proposed site for the wastewater treatment facilities is in row crop production and within the 100 year flood plain of the Salinas River. The 40 acre irrigation area would be limited to animal feed crops, fiber crops, flowers, Christmas trees or firewood production. The facilities would remove from production 52 of the 55 acres in row crops. If connection is made to the regional wastewater treatment facility, the 40 acres would be converted to row crops. The 12 acres would be converted to row crops if economically viable.

The River Road ADC

With the exception of Las Palmas Ranch and Toro Vista, the undeveloped areas of the River Road ADC will most probably use individual septic systems. County Health Department standards on Regional Water Quality Discharge Requirements should reduce potential impacts to an insignificant level. The potential for failure of existing septic systems in the area is considered low.

Although no sewering plan yet exists for Toro Vista, the Specific Plan was adopted on the premise that no development could occur without the eventual design and construction of an approved sewage disposal system.

MITIGATION MEASURES

No development can begin until a viable community sewer system is constructed. The following measures have been identified as possible wastewater treatment methods:

1. The development of a new on-site (Las Palmas Ranch) wastewater treatment system.

2. The expansion (and improvement) of Salinas Utilities Services facilities through contribution or purchase.

3. Merging with (future) regional sewer systems through annexation and trunkline extension.

Of the three measures, use of Salinas Utilities Service facilities would mitigate many concerns (duplication of services, loss of agricultural land to a package plant, eventual tie to the regional system). It is also the most unlikely, given current operating difficulties.

The development of on-site facilities, with the potential for connection to a regional system, accomplishes both short or long term sewage disposal goals for both alternative plans and is thus a viable mitigation method. Given any proposed wastewater disposal system, potential impacts will be mitigated by discharge requirements of the Environmental Protection Agency, State Regional Water Quality Control Board, and the County Health Department.

The following specific measures are recommended:

1. An on-site (Las Palmas Ranch) disposal system should be designed with an eventual connection potential to a regional system.

2. Consideration should also be given to a design for a service area that would include Toro Vista as well as the Las Palmas Ranch.

3. In accord with State and County policy, a district should be formed to operate the wastewater control facilities. Capital costs would be financed by connection fees. The district should be formed at the time of Plan approval so that the agency could plan, implement, and finance needed improvements. Although a county sanitation district is easiest to form and could later provide water if necessary, a broad based

umbrella agency such as a County Service Area or Community Services District is recommended. An umbrella agency can provide a wider range of public services which have the potential to lessen impacts on other districts currently serving the area.

4. As proposed in both alternative specific plans, the 52 acres proposed for wastewater treatment facilities would revert to row crop production if a regional sewer service connection is made serving Las Palmas.

5. If the on-site disposal system is located as proposed, the treatment facilities must be protected from flood inundation by encompassing levees. This recognizes that the investment in levees will further frustrate the conversion to row crop farming if a regional connection occurs.

2.9.2 Water Service

At Las Palmas, four wells supply water to the property. Two are small domestic wells and two are agricultural; the latter each produce approximately 1,650 gallons per minute. The source of water for the entire River Road ADC is groundwater. The California Water Service Company serves the Salinas area and a portion of the ADC area. The balance of the River Road ADC is served by private wells or small community water systems.

IMPACTS

All units within Las Palmas, under either alternative, are to be served by a community water system. Preliminary design for the ADC Policy Plan indicates a system of three wells producing 1,000 gallons per minute, three storage tanks with a total capacity of 1,500,000 gallons, and a distribution system of 70,000 linear feet of pipe. The system for the Existing Policy Plan would be downsized in proportion to decreased demand for domestic water. As previously discussed,

no significant effects on the underground aquifier are anticipated by MCFCD.

The most significant impact on water service is the management of water supply and the maintenance of systems. No water supply system has been approved for Toro Vista although it has been estimated that domestic demand for that project appears to be well within the capabilities of both the groundwater supply and a simple storage and distribution system.

Other undeveloped properties within the ADC will most likely develop with individual private wells. No significant impacts are anticipated.

MITIGATION MEASURES

1. Because Toro Vista and Las Palmas are so closely interrelated, duplication of services in supplying water should be avoided; also there should be a single entity responsible for well drilling, installation and maintenance in this portion of the River Road ADC.

2. Design, operation and use of community water systems must be in conformance with the requirements of the Public Utilities Commission, the California Public Health Department, the County Health Department and the Monterey County Flood Control District.

3. The California Water Service Company should provide service to the area; if this is not possible, a County Service Area should be organized to develop and maintain water systems.

4. Although the adequacy of water for the development of the area has been documented, the developer of Las Palmas should establish that there will be no conflict in the source of supply for domestic use and agricultural use to the detriment of crop production.

Required by law for new construction:

1. Low-flush toilets (Section 17921.3, California Health and Safety Code).

2. Low-flush showers and faucets (California Administrative Code, Title 24, Part 6, Article 1, T20-1406F).

3. Insulation of hot water lines in water recirculating systems (California Energy Commission regulations).

Suggested Additional Measures

Interior:

1. Maintain water supply line pressure of less than 50 pounds per square inch by means of a pressure-reducing value.

2. Limit flush-valve-operated water closets to 3 gallons per flush.

3. Equip all drinking fountains with self-closing valves.

4. Insulate hot water pipes in existing structures.

Exterior:

1. Landscape with low-water-consuming plants wherever feasible.

2. Use mulch extensively in all landscaped areas. Mulch applied on top of soil will improve the water-holding capacity of the soil by reducing evaporation and soil compaction.

3. Preserve and protect existing trees and shrubs. Established plants are often adapted to low water conditions and their use saves water needed to establish replacement vegetation.

4. Install efficient irrigation systems which minimize runoff and evaporation and maximize the water which will reach the plant roots. Drip irrigation, soil-moisture sensors, and automatic irrigation systems are a few methods of increasing irrigation efficiency.

2.9.3 Schools

SETTING

Las Palmas Ranch

The River Road ADC is served by the Spreckels Union School District (K-8) with one facility in the town of Spreckels. The Salinas Union High School District serves grades 9-12; students from the ADC would attend Salinas High School, one of the three in the district. The enrollment within both districts has declined in the last several years due to declining birth rates.

It is expected that Spreckels will be near capacity as a result of already approved projects within the district. The high school would continue to decline in enrollment, however, even with students from the approved projects.

Development impact upon schools changes constantly due to changing political and economic factors. Because the primary source of school funding is based on average daily attendance (ADA), a school with excess capacity may benefit from growth due to increases in ADA.

When enrollment increases cause a school to exceed capacity, the school will be impacted as ADA does not provide sufficient funds for new construction. Construction financing options were drastically altered by Proposition 13. Prior to its passage, voters could authorize a tax rate increase to finance bonds for construction. If bonds were not passed, and they usually were not in California, a district was forced to institute measures such as double sessions, extended days, or year-round school. Such measures were fairly common in high growth districts in the 1950's and 1960's. In response, the Leroy Green lease-purchase program was adopted by the state which provided for tax increases to be used to make lease payments on school facilities financed by state funds. Proposition 13 generally eliminated the ability of district voters to authorize tax

increases for repayment of bond/lease obligations. It is the loss of local options that has created the problem of financing school construction.

On September 19, 1981, the Monterey County Board of Supervisors adopted Ordinance No. 2775 which established fees to provide temporary facilities to alleviate overcrowding from new development. The ordinance is based on SB201 and requires that school districts furnish the Board with information on conditions of overcrowding. If the Board agrees with those conditions, they have the authority to require fees for each new unit constructed within the school district. The following fee schedule was adopted, per bedroom for each housing unit with more than one bedroom: K-6 fee - $317.00; 7-8 fee - $96.00; 9-12 fee - $202.00 for a total of $615.00

IMPACTS

Las Palmas Ranch

The following enrollments could be expected using Monterey County's student generation factors of .48 (K-8) and .23 (9-12) per residential unit.

TABLE 2.6

LAS PALMAS RANCH STUDENT GENERATION

	Units	(K-8)	(9-12)	Total
Existing Policy Plan	720	346	166	512
ADC Policy Plan	1578	757	363	1120

Source: Grunwald Crawford & Associates

The Spreckels school, given projected enrollment increased from already approved projects, would be significantly impacted by the project.

If a capacity of 700 is used for a K-8 school, the Existing Policy Plan would create a need for about one-half of a new school while the ADC Policy Plan would generate enough students to justify a complete new facility.

A further problem within the Spreckels district is the location of the existing school across the Salinas River from the site. This location requires busing and may make the development of a new school at or near the site preferable to expansion of the existing school.

The impact on the Salinas Union High School District as a result of Las Palmas Ranch development is not expected to be significant. Lawrence M. LeKander, Superintendent of the Salinas Union High School District, states that high school enrollments from the Toro area have declined 10% in the last five years and present elementary school enrollments suggest that the decline will continue.(1)

The River Road ADC

Table 2.7 shows expected enrollments after full development of the River Road ADC. For analysis, it has been assumed that the Pedrazzi and Indian Springs subdivisions are developed and thus, already contributing students. New development impacts are then based on a general figure of 2,200 new units with the ADC Policy Plan and 1,375 units with the Existing Policy Plan.

TABLE 2.7

RIVER ROAD ADC STUDENT GENERATION

	Units	(K-8)	(9-12)	Total
With Las Palmas ADC Policy Plan	2200	1056	506	1562
With Las Palmas Existing Policy Plan	1375	660	316	976

Source: Grunwald Crawford & Associates

(1) Letter of Correspondence to Brian Finegan, Attorney for Las Palmas Ranch, May 27, 1981.

Development of the River Road ADC Policy Plan for Las Palmas would justify development of the new K-8 school and may necessitate the addition of classrooms at the present school. With the Existing Policy Plan, one new facility will be needed but could accommodate all expected enrollment increases from the ADC.

The impact of 316 to 506 additional high school students would not create the need for additional facilities. Superintendent LeKander states that 1,000 students are considered to be the minimum needed to justify a new high school. Much more so than for K-8, impacts on the high school are dependent on growth rates elsewhere in the Toro area. In this regard, Mr. LeKander estimates that if 3,000 new housing units are added to the Toro area in the next 10 years, an enrollment increase of 900-1000 students would be expected; not enough to warrant a new facility.

MITIGATION MEASURES

There are several existing means through which local government can ensure the provision of adequate school facilities.

1. Reservation of Land

   A county has the authority to require the reservation of land as a condition of subdivision map approval. This policy power is allowed by the school site dedication requirements of the Subdivision Map Act. Both Las Palmas Ranch alternatives provide for reservation of an elementary school site. However, there must be provisions for funding shcool construction for this measure to be effective.

2. SB 201

   As previously stated, the County adopted an ordinance as authorized by SB 201 which allows the assessment of fees for the provision of temporary classrooms, for a period not to exceed five years. This bill was designed as an interim measure to alleviate overcrowding prior to

permanent facility construction and could also be implemented to alleviate interim peak overcrowding.

3. AB 8 - Owners' Development Lien

   AB 8 (Education Code, Section 39327) authorizes a state-funded emergency temporary classroom program, and provides a means for acquiring funds for school facility construction directly from new development. With the acquiescence of the developer, a school district can establish a non-profit corporation with a lien on each of the subdivided parcels of a proposed development for the purpose of collecting an assessment for debt service on bonds to be issued by the corporation. The proceeds from the sale of the bonds would be used to construct new school facilities, which would be leased back to the school district. A local agency reviewing the tentative tract map for a development could make applicant acquiescence to formation of the non-profit corporation a condition of tentative tract map approval.

4. Developer Contribution

   Mitigation of identified impacts can be required as a condition of development approval which implies direct school district/developer negotiations.

In addition to these measures it is possible to establish a property tax for school construction. The school districts could call for an election for such a tax which could be levied on existing and/or new homes. This tax would be subject to elections every four years for continuance, and would require enabling state legislation for implementation. However, this school construction financing method is now used within the Chino, California, School District.

The following specific measures are recommended to mitigate potential over-

crowding impacts within the Spreckels Elementary school District, regardless of which alternative is approved:

1. Reservation of an elementary school site as proposed in both Las Palmas alternatives.

2. Implementation of SB 201 to provide temporary classroom facilities.

3. Construction of permanent classroom facilities through:

   A. State funded construction programs;

   B. And/or locally generated monies (developer contributions, AB 8, property tax increases, or other means).

The imposition of SB 201 fees will be adequate to mitigate potential high school impacts.

2.9.4 Fire Protection

SETTING

Fire protection is provided by the Salinas Rural Fire District (SRFD); the main office is located on East Alisal Road in Salinas. The District has mutual aid agreements with the Castroville Fire District, the Pajaro Fire District, and the California Department of Forestry for the North Monterey County Area.

SRFD Station No. 3 provides service to the River Road ADC. This station is located on Highway 68, near the junction with River Road. Response time to the eastern-most portion of the ADC is approximately 5 minutes. Station No. 3 is manned fulltime by a three-man shift, with three shifts in a 24 hour period. It is equipped with three vehicles, with access to a fourth vehicle when necessary. Economic constraints brought on by declining district revenues and state subventions have caused the SRFD to consider closing Station No. 3. Backup response to the area is provided by Station No. 2, with a running time of 5-10 minutes.

The California Resources agency has established a criteria to classify fire hazard areas within the state.(1) Vegetation, fire weather, and slope are the factors that determine the classification of a given area. The River Road ADC ranges from moderate to high hazard on the Fire Hazard Severity Scale.

IMPACTS

There are two forms of development related fire protection impacts: 1) the influence of development upon an area's wildland fire hazard, and 2) the financial impact on a fire service agency caused by an increased demand for services.

The cumulative effects of development will increase fire hazard potential by increasing human activity and by placing structures in an area subject to wildland fires. If a ground fire should start in such an area, the first responsibility is to structure protection; as a result, efforts are diverted away from the ground fire, often allowing it to spread uncontrollably.

In terms of service provision, the most significant impact of this project on fire protection is also cumulative in nature. While each individual project in the River Road area may have only a minor effect on the Fire District, all the projects taken together could necessitate the need for additional manpower and equipment.

According to the SRFD chief,(2) any significant development of the Las Palmas Ranch, when combined with approved developments to the east along River Road (Pine Canyon, Pedrazzi, Indian Springs, and Vista del Rio), could necessitate the development of an additional station in the River Road area. This would be

(1) A Fire Hazard Severity Classification System for California's Wildlands, State of California, Department of Conservation Division of Forestry, 1973.

(2) Draft Fiscal Impact Analysis, Las Palmas Ranch, LeBlanc & Company, December 1981.

in addition to the development of self-sustaining water system with full hydrants, as required in other recent developments in the area. A review of response times to Las Palmas from other stations and the level of volunteer assistance available to SRFD will indicate the timing of a new River Road facility if and when needed.

The estimated capital costs of a new station would be some $250,000 - $400,000, including land costs; a pumper and grass truck would be an additional $130,000 together. Current annual operating costs for 24 hour coverage by a three man crew would be $300,000. Savings would be possible if a portion of the coverage were by volunteer firemen.

MITIGATION MEASURES

1. Physical means of mitigating fire protection impacts:

   a. Roadways should be developed in accordance with the fire protection standards of the Safety Element of the Monterey County General Plan and the Salinas Rural Fire District.

   b. Construction should be located away from dense vegetation, and dead plant material should be removed where it creates a threat of wildland fire. (A grazing management plan mentioned earlier under Vegetation and Wildlife mitigation measures could reduce grass fuel loading.)

   c. Fire hydrants, water storage (1,500,000 gallons), and water presure should be provided as required by the County and Salinas Rural Fire District.

   d. Only fire resistant roof materials should be used.

   e. The CC&R's for all new subdivisions should include requirements for fire protection practices.

. A system of fire breaks should be developed and maintained around residential areas.

g. An emergency access road, as depicted on both Las Palmas alternative plans, should be required for evacuation or emergency vehicle entrance at the southwestern boundary of the site.

2. Means of mitigating fiscal fire protection impacts:

The District does not have the fiscal resources to develop additional stations, nor to staff them. The only way to develop a new station within the River Road ADC would be through developer contributions or special assessments. With the present Fire District's 13.5 percent participation in property tax receipts, some $222 million in assessed value would be required to support the $300,000 annual operating costs. This would necessitate an average $114,000 assessed value for the potential units (1,578 at Las Palmas plus the already approved units in the ADC), an average value similar to that envisioned for housing within the Las Palmas Ranch. Fewer units or lower cost units reportedly would generate insufficient tax support for the station, while probably still generating the need for the station.

At present tax rates, funding of the full operating cost of a new station would not be feasible until nearly the end of the buildout period projected for Las Palmas Ranch (assuming the other units farther east in the ADC are completed). Alternatives for earlier development would be 1) utilization of volunteers, 2) limited hours of fire protection from the new station, or 3) a special assessment or user fee to supplement the property tax support of the District. While a user fee proposal for the District was recently defeated by the voters, increasing fire insurance premiums resulting from

poor fire protection may encourage electoral support of a user fee structure in the future. District reorganization since the last election could considerably influence the voting pattern as well.

2.9.5 Police Protection

SETTING

Las Palmas Ranch

Police services are provided by the Monterey County Sheriff's Department on Patrol Beat No. 4. This beat extends from Los Laureles Grade east to Spence Road, north along Highway 101 to Blackie Road, west to Marina and south to Los Laureles Grade. Beat No. 4 is covered by one patrol deputy during the daytime hours, and at night one patrol deputy covers both Beats 3 and 4. Detective and transportation units pass through Beat No. 4 on a regular basis. Response time to the project area for the Sheriff's Department is approximately 15 minutes.

IMPACTS

Under either alternative of the Las Palmas Plan, increased demand for police services would result. Calls for service can be expected to be more numerous for the ADC Policy Plan due to a larger population, more areas of higher density, and greater commercial floor space, presuming commercial uses are found to be consistent and are implemented.

According to the head of the Sheriff's patrol division, service needs are determined by the incidence of crime in the area rather than the population. The area is considered a low crime area and would be expected to remain so with the development of the Las Palmas Ranch project. It is believed that the additional population, as a result of the ADC Policy Plan, would not require the initiation of a new beat, thus there would be no substantial increase in Sheriff's Department costs as a result of the proposed project.

Although this was the conclusion of the Sheriff's Department, the cumulative effects of the various projects in the area, including Vista del Rio, Toro Vista, and Las Palmas Ranch could conceivably increase at some point the public's demand for police services. The average cost of a deputy sheriff, including benefits and the operating costs of a vehicle, is presently just over $40,000 per year; full 24 hour protection would require five officers at a cost of approximately $200,000 per year. Being extremely conservative and assigning this level of service to Las Palmas alone would result in costs of about $48.00 per capita, the average per capita cost calculated by McDonald and Associates in the EIR for the Monterey II-Laguna Seca (Daon) project. A more realistic assessment might be to assign such coverage to the population of 10,000 persons forecast for the entire Toro planning area including Las Palmas Ranch. This would generate a per capita annual police cost of $20. A smaller population would, of course, raise the per capita amount.

MITIGATION

1. The Las Palmas Ranch developer should consider on-site patrols and private gates to major residential areas.

2. Measures to reduce crime potential should be incorporated into the project design, according to criteria of the County Crime Prevention Officer. Such measures include:

   a. Main entrances should consist of a single access drive with ingress and egress clearly marked.

   b. Landscaping, when fully mature, should allow the observation of housing units from the ground up to four feet.

   c. Lighting should be used to allow good visibility from patrol cars.

d. Residences should have their address posted nearest the roadway and well lit.

2.9.6 Public Utilities/Energy

SETTING

Electricity and natural gas are supplied by Pacific Gas & Electric Company. The third major fuel type, gasoline, comes from suppliers in northern and central California. There is a gas main at Reservation Road and Highway 68. A 12KV line runs through the project area.

IMPACT

Las Palmas Ranch

Development would cause two stages of energy consumption: the energy needed during construction, and the energy required for operation and maintenance of the development.

The energy needed for construction would not be significantly different from other developments of comparable scale. Site designs which cluster development and minimize the need for road development and extended service delivery systems require less construction energy per unit than sprawling large lot developments. Both the Existing Policy Plan and the ADC Policy Plan have been designed with minimal roadways and clustered development site, which should result in an efficient energy use during the construction phase.

The most significant quantities of energy would be for the operation and maintenance of the development. The amount of electricity and natural gas to be consumed by residential uses in either of the alternate Las Palmas Ranch proposals is outlined below. These projections are based on current usage trends and do not reflect probable reductions brought about by rising prices or local, state, and federal regulations.

Clustered units are proposed which result in decreased overall energy use and allow more common open space for walkways and bikeways. In terms of gasoline, residents of the Existing Policy Plan would consume about 2.7 million gallons annually.

TABLE 2.8

LAS PALMAS RANCH
ANNUAL ELECTRICITY AND NATURAL GAS CONSUMPTION

Existing Policy Plan	KWH/yr.	Therms/yr.	Total KWH	Total Therms
279 single-family units	8500/unit	800/unit	2.37 million	223,200
441 multi-family units	5000/unit	580/unit	2.21 million	255,780
			4.58 million	478,980
ADC Policy Plan				
503 single-family units	8500/unit	800/unit	4.28 million	402,400
1075 multi-family units	5000/unit	580/unit	5.38 million	623,500
			9.66 million	1,025,900

Source: Grunwald Crawford & Associates

At an average cost of .06¢ per KWH, .40¢ per therm and $1.50 per gallon of gasoline, total energy costs per year can be expected to be about $2.7 million for the Existing Policy Plan and $5 million for the ADC Policy Plan (about $3500 per household, per year, in 1981 dollars for either alternative).

The River Road ADC

Provision of electricity and natural gas service to the River Road ADC will not stress the existing capacities of any of the involved agencies. New distribution systems will be required, however.

There are no significant shortfalls in energy supply nor any significant problems in service availability expected. From a regional energy standpoint, the levels of residential and supportive development proposed represent an insignificant impact on electrical, natural gas, and gasoline delivery systems.

The primary impact of any development would be if it were to result in unnecessary energy waste. Mandatory and advisory energy conservation policies concerning construction and operation of new development have been instituted by national and state legislation. Given this situation, any new project will be more energy efficient that existing development. However, with the implementation of local policies, and the use of energy conserving design features, consumption energy rate can be reduced even further.

MITIGATION MEASURES

1. Consideration should be given within planned unit developments for limited professional office use and a liberalization of in-home occupations. Continued improvements in mass communication technology will allow more work in the home, further reducing trip demand.

2. Higher density residential development, and clustered residential development should be encouraged. Higher densities lessen per capita energy use in several ways, primarily related to a corresponding reduction in the living area. Thus less energy is required to construct each unit, and to operate and maintain the unit over its useful lifetime.

   As densities are increased from the low (1 unit per 2 acres) to the medium range (6-7 units per acre) the economic feasibility and efficiency of public transit systems also increases.

3. Each residential unit should be afforded adequate solar access for the operation of active and passive solar systems. Locating structures with their major axis oriented within 22.5° of true east/west is generally the best means to insure adequate south-facing solar access. For single-family homes, the orientation is fairly simple to implement as is full access to the south wall for passive solar design. For multi-family units, orientation and access are more difficult; generally south roof access for active space heating or domestic water heating systems is considered sufficient.

   The site has significant potential for wind generated power, especially as technology for individual generators improves. This factor should be considered in project design.

4. Careful design of structures to utilize solar access and to control heat loss and heat gain can achieve significant energy conservation. When these design elements are coupled with passive design features (thermal storage units, south facing glass, domestic hot water systems and other energy conserving components), the energy conservation potential greatly increases. Support structures built by the developer such as commercial areas, swimming pools, recreation and community buildings should make maximum use of alternate energy sources both to reduce operation costs and to serve as community examples.

5. Other features can have less direct effects on energy consumption.

   a. Landscaping plans should consider the shading effects of plant species and also the potential to interfere with desired solar access. Plantings can affect site micro-climates thereby reducing heating and cooling needs.

b. Consideration should be given to wood lot management and a community farming area. Management could be a duty of the Homeowner's Association. An estimated 10 acres of eucalyptus properly planted and maintained could provide supplemental firewood to residents as well as serve as windbreaks at strategic locations. Community farming plots in higher density areas can reduce food costs and the need for travel.

The use of a portion of the property for agriculture has the potential for groundwater recharge as well as the ability to produce a usable crop.

c. The addition of pedestrian and bicycle paths to the internal circulation system could further reduce the need for automobile use.

2.9.7 Energy Conservation

(This section is incorporated under mitigation in 2.9.6 Utilities/Energy)

2.10 ARCHAEOLOGICAL/HISTORICAL

In the "Archaeological Survey" (See Environmental Resources Inventory, Appendix A) by Gary Breschini and Trudy Haverstat of September 1977, it is noted that:

> "No archaeological resources were located during the intensive field reconnaissance, but historical resources were located. These consisted of the remains of an early adobe and of a Victorian ranch house. Proposals were made for the preservation/mitigation of these structures through additional evaluation by a qualified historian specialist. With these exceptions, no archaeological resources are known or suspected in the Las Palmas property."

The history of the area is documented back to 1795 and the first known occupation in the Buena Vista area by Jose Maria Soberanes and his father-in-law, Joaquin Castro. A land dispute arose, with ownership claimed by Father Vinals of Mission San Carlos; the family lost the land in 1802.

About 1822, then Governor Sola gave the landgrant to Santiago and Jose Mariano Estrada, who reportedly built the adobe mentioned above. It has a long history as an arsenal, fiesta hall and school.

In 1872, Hiram Corey returned to California and leased 7,725 acres of the Buena Vista Ranch and established a stock ranch, purchasing the land in 1883. In 1889 he sold the ranch but repurchased 1,620 acres on the Salinas River to make his home in picturesque surroundings. In 1891 he built a residence of grand architectural proportions and it was one of the show places of the county.

The Corey House has been partly restored and is proposed to be used as a social center in both the ADC Policy Plan and the Existing Policy Plan.

The archaeological and historical resources of the Vista Del Rio, Pine Canyon Estates and Toro Vista subdivisions were identified and assessed, in the respective EIR's for these projects. Specific mitigation measures were proposed for the conditions found within these areas.

The only areas within the River Road ADC which have not been developed nor assessed are areas "A" and "B" (Exhibit 1.2).

IMPACTS

Las Palmas Ranch

No archaeological impacts are expected from the Las Palmas project. However, no subsurface testing was conducted and resources could be uncovered during excavation for the project. The property owners have no plans to preserve the adobe since the ruins appear to be beyond restoration as almost nothing remains.

The River Road ADC

The potential development impacts within the Vista Del Rio, Pine Canyon Estates and Toro Vista projects were identified in their respective EIR's. It is anti-

cipated that there would be no historical/archaeological impacts in the potential development areas "A" and "B".

Prior to development approval, an archaeological/historical reconnaissance should be conducted. This could be regulated through the County's environmental assessment process.

MITIGATION MEASURES

1. Conduct historical/archaeological reconnaissance before development of Areas "A" or "B", shown on Exhibit 1.2, and require implementation of appropriate mitigation measures as a condition of development approval.

2. Should any find be encountered during construction, stop all work within 50 feet of the find, and contact the Archaeological Regional Research Center at Cabrillo College (408) 425-6294, and the County Planning Department at (408) 422-9018.

3. In the Las Palmas Area, preserve as open space (or excavate, scientifically) the area around the adobe site as a means to retrieve the historic artifacts and data on the dimensions, materials and source of materials used in the structure.

3.0 ENVIRONMENTAL EVALUATION

3.1 CUMULATIVE IMPACTS

The cumulative effects of existing and proposed alternative developments within the proposed Area of Development Concentration (the "project" of this EIR) have been identified throughout the report.

Table 3.1 lists projects within the entire Toro Area, which includes the ADC. The primary cumulative impacts of these projects include:

1. Gradual change will occur in the rural character and ambiance of the Toro Area. Many Toro residents chose this area because of the rural life style and the predominance of large lot single-family homes. This concern for rural character is written into the present Toro Area Master Plan as one of its major goals. This rural ambience will gradually change to a more urban setting with pockets of higher density interspersed with rural and open lands. Housing type mix will also occur with the likely effect of changing the long-term social and economic make-up of the community.

   Highway 68 is a designated scenic route, and River Road passes through a largely rural and open area; conversion of adjacent undeveloped lands to residential use could significantly alter viewsheds. The sense of being in the rural countryside would gradually be eroded as residential development expands throughout the area.

2. Continued loss of open space, which in turn results in decreased wildlife habitat, watershed and grazing lands.

3. Service levels on Highway 68 and River Road would continue to decline. Cumulative increases in traffic would necessitate improvements to River

TABLE 3.1

TORO AREA PROJECTS

Development	Acres	Units	Population	Status
*Toro Vista	1,085	599	2,110	Specific Plan adopted.
Toro Hills Estate	39.28	31	97	Tentative Map Approved. Waiting for sewage connection ban to be lifted.
The Meadows	60	121	377	Approved. 60 units under construction. Waiting for sewage connection ban to be lifted.
Corral De Tierra Oaks Unit	159	60	188	Approved. Under construction.
Tierra Meadows	46.5	23	72	Approved. Lots being developed.
*Pine Canyon Estates	88	60	251	Tentative Map approved.
Geodetic Subdivision	60.6	16	50	Tentative Map approved.
*Vista Del Rio	93.7	80	261	Approved.
Mount Toro Ranches	52.8	15	50	Approved.
*Heritage Park	20.7	20	63	Approved.
Corral De Tierra Highlands #1	19.2	9	28	Approved.
Toro Sunshine	14.9	44	138	Tentative Map approved.
Hamilton Condominiums	1.49	9	28	Tentative Map approved.
Mesa Del Toro #2	60	13	41	Approved.
Mesa Del Tierra	57.5	12	38	Approved.

*Projects within River Road ADC (see Exhibit 1.2, Page 5)

Source: Monterey County Planning Department

Road including right and/or left turn lanes at secondary roadway intersections; signalization at some intersections; protected acceleration lanes; and additional through lanes at selected locations.

Cumulative development would increase the need for expanding Highway 68 to four lanes west of the River Road interchange, together with interchange improvements discussed earlier.

4. Maintaining air quality standards in the air basin will be increasingly difficult as the Toro Area approaches full development with a population of 10,000 persons and 6,000 autos. Given the predominantly residential character of proposed developments within the Toro Area (i.e., little or no commercial or employment centers), most future residents would depend almost entirely on the automobile for transportation to nearby jobs (Salinas and Monterey), shopping and entertainment areas.

5. Capacities at Spreckels Elementary and Salinas High Schools would be stressed. An additional elementary school site would have to be dedicated and both temporary and permanent classrooms provided for K-12 students.

6. In an era of budget constraints, the increasing demand for public services in non-urban areas will foster greater dependency on a "user pay" approach and thus force more families out of the housing market. The capital and operating costs for a multiplicity of special districts, "zones of benefit", and private service entities providing a full array of infrastructure needs may be so costly that only high-income housing proposals will be feasible in the Toro Area. Although the intensity of development allowed under existing policies would be less damaging to the environment, the greater density allowed under an ADC would provide

a broader funding base for services.

7. Despite federal, state and local efforts to conserve energy, the level of development anticipated will result in a gradual increase in energy demand. Due to the area's distance from community services and or facilities, (shopping, jobs, entertainment, libraries), the consumption of fuel per household in the Toro Area for transportation would probably be well above the average per household in Salinas.

3.2 UNAVOIDABLE ADVERSE IMPACTS

A list of unavoidable adverse impacts associated with the project is shown in the Summary, at the beginning of the report.

3.3 PROJECT ALTERNATIVES

3.3.1 No Project

This alternative would keep the Las Palmas Ranch and other undeveloped lands without project approval in their present state with the result that the impacts identified in the EIR would not occur, for the most part.

The No Project alternative has merit, both in the short and long term. Following are several immediate beneficial effects:

1. The Toro Area General Plan is being adopted and the approval of the project could prejudice the planning process.

2. There is a need for Highway 68 improvements. No financing mechanism for improvements yet exists and the project could add to cumulative traffic impacts.

3. Other urban services, particularly sewer, schools and fire protection, are being impacted by existing development. Projects already approved but not constructed will further impact these services.

4. The row crop farmland would not be taken out of production.

In the long term, undeveloped areas will continue to be valuable for agricultural, open space, wildlife habitat, and watershed. While it is true that cattle grazing is not currently economically viable on the Las Palmas Ranch, other agricultural pursuits could be investigated. As an example, according to the County Planning Department, the land might be productive for grazing as a thoroughbred horse ranch. (The economics of such an operation is not within the scope of the EIR).

A "no project" would also mean that the proposed affordable housing would not be available and development pressure could increase elsewhere on prime agricultural lands in the Salinas Valley.

3.3.2 Alternative Location

There are alternate locations for the type of development proposed in the ADC Policy Plan which could accomplish several of the applicant's development goals, chief among them is meeting the strong demand for housing and preserving prime farm land. One such location is the Salinas northeast annexation area. Apparently, many existing urban services could be made available and development would be generally contiguous to the existing city, which would lessen certain other impacts such as the traffic on Highway 68. However, the full environmental and fiscal impact on the city's infrastructure would have to be assessed before making a firm recommendation.

3.4 GROWTH INDUCEMENT

The project will be growth inducing in several ways. The present rural nature of the River Road ADC area will be altered to a more urban character; in combination with development already existing in the Highway 68 corridor, this area could become a major residential community attracting growth away from Salinas

by virtue of the residential environment, the provision of low and moderate income housing, and support services (commercial, schools). This growth would occur in a manner not anticipated by the Monterey County General Plan or the City of Salinas General Plan.

Because the project is being considered before the update of the Toro Area Master Plan, it could also serve as a precedent for other properties in the Toro Area. Policies of the proposed River Road ADC signal a basic change from the rural policy intent of the existing plan.

Despite the provision of public utilities and services to Las Palmas and Toro Vista, the growth producing impact on adjacent lands is limited. These lands are either already developed, under public ownership (Toro Regional Park), or unsuitable for development.

An exception is those properties lying east of Pine Canyon Road. Although the Board of Supervisors made a policy decision not to allow urban expansion in this area, adoption of the River Road ADC could lead to pressure to reopen development discussions.

3.5 IRREVERSIBLE ENVIRONMENTAL CHANGES

Implementation of the project would induce several irreversible environmental effects. These would include consumption of non-renewable resources including energy during construction and permanent commitment of resources to the maintenance of development.

Development of Las Palmas Ranch would also result in the irreversible commitment of prime agricultural soils to residential and public facility use. Grazing lands could also be lost, although much of the property would remain in open space. An open space management plan would conceivably include some provision

for continued grazing if prehaps only on a seasonal basis.

The provision of roadways, circulation systems, and public utilities tend to ensure that the property will remain in residential and/or commercial use during future generations and will not revert to agricultural production.

3.6 SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

The proposed alternatives for Las Palmas Ranch would diminish long-term agricultural productivity by committing prime agricultural soils to urban uses. The development plans would produce long-range beneficial economic effects for the property owner and provide long-term housing needs for a segment of Monterey County residents including 15% of the units for qualifying low and moderate income families.

The current use of the project site provides agricultural productivity, open space corridors, riparian habitat, and scenic landscapes. Development of the property would reduce the level of production on the agricultural acreage and promote a diversity of land uses at the site. Open space along the Salinas River would be preserved which would limit disturbance to riparian habitat. Scenic views of the property would be partially obstructed, reducing the rural character of the site. This effect could be alleviated to a certain extent by the use of landscaping and through sensitive building design.

4.0 REFERENCES

4.1 LITERATURE

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- Historic Element, 1974
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- Noise Element, 1975

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Wilsey and Ham, Las Palmas Ranch Erosion and Drainage Control Program, May 1981.*

Wilsey and Ham, Las Palmas Ranch Traffic Study, January 1981.*

4.2 Persons and Agencies

Lynn Mounday, Monterey County Planning Department
Dave Young, Monterey County Planning Department
Cathy Stein, Monterey County Planning Department
Walter Wong, Monterey County Health Department
Andy Hood, State Health Department
Eric Gobler, Regional Water Quality Control Board
Ron Lundquist, Monterest County Public Works Department
Chief Don Eberle, Salinas Rural Fire Department
Capt. Roger Chatterton, Monterey County Sheriff's Department
Michael Johnson, Monterey County LAFCO
Owen Stewart, Monterey County Flood Control District
Wilbur Smith, AMBAG
William J. Roberts, CalTrans
Frank Cooper, Spreckles School District
Lawrence LeKander, Salinas Union High School District
Dean Wagoner, California Water Service Company
R.H. Dennis, Pacific Gas & Electric
Robert Chan, U.S. Army Corps of Engineers
Z.M. Torres, Pacific Telephone
Dan Laughlin, Department of Fish and Game
Michael Graham, Monterey Regional Water Pollution Control Agency

*The above documents have been incorporated in this document by reference and may be reviewed at the Monterey County Planning Department, 240 Church Street, Courthouse, Salinas, CA.

APPENDIX A

Initial Studies

1 - Proposed River Road Area of Development Concentration

2 - Las Palmas Specific Plan

INITIAL STUDY: RIVER ROAD "AREA OF URBAN CONCENTRATION" GENERAL PLAN AMENDMENT

GEOLOGY/SOILS

1. One fault exists: Reliz Rinconada; parallel to River Road.

   Others may exist, there has been no definitive study.

2. Some areas within the area under consideration are subject to liquefaction due to the sandy nature of soils and a high groundwater potential.

3. Twenty soil types exist in this area.

   Slopes vary from 0 to over 75%.

Degree of Slope	% of Total Area	Erosion Hazard
0-10%	50%	Negligible
10-30%	26%	Moderate
30-50%	12%	High
50%	12%	Severe

Agricultural Classes vary from I to VIII (Best to Useless)

Agricultural Class	% of Total Area	Potential Use
Class I & II Soil	approx. 10%	Any Agricultural use
Class III Soil	approx. 25%	Row Crop & Orchard under certain management practices
Class IV Soil	approx. 21%	Slopes limit use to some grains and grazing
Class V-VIII	approx. 44%	Watershed, habitat, open space, some housing, but with difficulty and greater environmental impact.

4. Principal Soil Problems

   a. Erode easily = Maintenance due to silt on downslope land and roads and drainage ways.
   b. Percolation = Too fast or too slow; not suitable for septic tanks (At urban density septic tanks would not be feasible as a method of waste disposal.)
   c. Expansive Clay Soils = Foundation problems.
   d. Soils on Slopes = Soil Creep/Lack of Stability

RUNOFF/FLOOD HAZARD

1. Rapid runoff from steep slopes onto flatter lands near River Road.

2. Sediment load is dumped on these alluvial fans.

3. No permanent ponds or stream channels; channels exist as erosional features; urbanization requires specific drainage structures at some expense, and siltation basin removal/maintenance program.

4. Areas along River Road are subject to flood hazard from Salinas River during 100 Year and greater storms. Lower reaches of drainage channel's are also subject to localized flooding.

Note: Removing development from flood potential could remove 3-5% of flatter lands from development consideration.

VEGETATION/HABITAT

Chamise/chaparral	20-25% land area on slopes
Oak woodland	15% scattered and on drainages
Grasslands	10-25% grazed
Farmed and developed	35-55% homes, crops, roads, etc.

- o No specific survey for either plants or animals has been done. Technical report and survey should be done.

- o Prime impact on habitat would be in oaks, chaparral and drainage ways, however any sensitive species will be impacted if urbanization occurs.

- o Off-site impact on Salinas River riparian corridor will occur.

SCENIC/ODOR/NOISE

Urbanization of the area could lead to:

1. Loss of open space, cluttered development, spread along River Road, visible from Salinas and Highway 101.

2. Odors could result in an impact from Spreckels, local sewage package plants, agricultural neighboring uses.

3. Traffic and human-generated noise as well as that of domestic pets is more concentrated and hence more significant in a densely populated urban area.

4. Litter along River Road will increase.

5. Lot owner's views will be more likely to impinge on one another.

TRAFFIC/ACCESS/CIRCULATION/AIR QUALITY

1. Requirements to improve River Road would eventually be significant.

2. A well-planned circulation system could be developed, however, projects to date have all developed individual circulation and all exit on River Road. The Bridge across the Salinas River at Spreckels, shown on the Toro Area Master Plan, would be expensive to implement, and might have environmental impacts of its own.

3. Traffic volume would impact South Main Street in Salinas as well as westbound Highway 68 traffic.

4. Channelization, new lanes, turn pockets, and perhaps signals at the 68 Freeway onramp might be required.

5. River Road is the only ingress/egress to the area. Chualar River Bridge, to the South, is inadequate for traffic at volume.

6. The commute to present work areas is significant.

7. Auto emissions and fireplace emissions would increase and be concentrated if the area is urbanized.

8. The area might be subject to long term effects of pesticide spray from upwind agricultural lands.

PUBLIC SERVICES AND FACILITIES

Sewage

1. Urban density will require sewage treatment facilities.

2. Individual package treatment plants would be run by government agency. Costs and timing are unknown.

3. Proliferation of individual package plants would be economically wasteful if the regional treatment plant becomes the future treatment alternative.

4. Number 3 implies LAFCO action to form a sewer district in the Toro area.

5. Sprayfield required to dispose of treated effluent for an urban concentration would be extensive and significant.

6. Zones 2 and 2A encompass almost all of the area under consideration. The project would be to develop an areawide distribution network, treatment plant, and whether existing mutual systems could be incorporated, or would remain as islands.

Water

1. Total pumpage required for an area of urban concentration cannot be determined until actual uses have been planned, therefore, actual volume impact on the area is uncertain.

Schools

1. New Elementary school(s), Jr. High and High Schools would probably be required in the area. Locations and financing are the two major issues. Spreckels Union School District would be impacted.

Fire

1. A new fire station near Pine Canyon Road, or expansion of the Portola Drive Station of the Salinas Rural Fire District which would be impacted dependent upon ability to finance expansion.

Energy

1. Utilities would require extensive dependence on inefficient electricity unless natural gas is extended throughout the area.

2. Gasoline consumption would be great unless mass transit service is available and utilized.

3. Urbanization of the area would probably necessitate a solid waste transfer station.

ARCHAEOLOGICAL/HISTORICAL

1. Most of the area contains no archaeological sites. Approximately 50% of the area has been field surveyed. Another 15% is developed; about 1/3 remains to be field checked.

2. The Corey House and the Boronda (?) Adobe Homesite on Las Palmas constitute 2 historical resources. Old "Hilltown" might constitute another nearby resource as would be the Spreckels Plant. No research is available on other structures. The Grange Building, or its function, might qualify.

AGRICULTURAL LAND CONVERSION

1. Urbanization would convert 3,000-5,000 acres of rangeland, perhaps more due to adjacency and land use conflict.

2. About 250-500 acres of row crop land, or land with that potential, would be directly affected.

3. Another 300 acres along River Road between the road and river could be indirectly affected.

CONSISTENCY WITH ADOPTED GROWTH MANAGEMENT POLICIES

1. The area does not now have the infrastructure to support urbanization.

2. The urbanization of River Road does not have as high priority as development adjacent to existing cities and towns.

3. Consistent with Policy 3 - dependent upon being able to fulfill and plan for all necessary services.

CONFLICT WITH NEIGHBORING LAND USE

1. Not conducive to grazing nearby.

2. Not conducive to close proximity intensive agricultural practice.

3. Not amenable to odors generated by Spreckels.

4. Subject to Fort Ord helicopter overflights and Army transport use of River Road to Fort Hunter Liggett.

ADVERSE CUMULATIVE IMPACT

1. The addition and synergistic effect of traffic increases on Highway 68 due to growth in South Salinas, Monterey, Hidden Hills, Carmel Valley, etc.

2. Increasing need to solve sewage problems to protect our groundwater resources.

3. Protecting natural beauty and our tourist attractions which are progressively declining as development continues (potential benefit to prime agricultural land and open space if urbanization achieves clustering and reduces sprawl both in time and space).

4. Totality of all development stresses capability of local school systems.

5. Air pollution increases must be dealt with on areawide basis.

6. Urbanizing River Road puts a cumulative stress on drainage and flood control along the Salinas River.

7. Energy consumption.

GROWTH-INDUCING

1. Will push the homeowner who desires a rural setting further out along River Road where service is even more remote and impacts to the environment are even greater.

2. May change surrounding property values, assessments, and market situation.

SHORT-TERM vs. LONG-TERM BENEFITS

1. May alleviate short-term, the need for more, and perhaps less expensive housing at the long-term expense of overall planning effort needed to coordinate with growth in the other Toro Area localities.

2. Row crop land may be more important for the long-term than fulfilling a possibly short-term urbanization strategy for this area. Perhaps row crop land can continue in production if the whole Toro Area is planned as a unit.

IRREVERSIBLE COMMITMENT OF LAND OR IRRETRIEVABLE RESOURCES

1. Urbanizing River Road will require such a massive capital outlay from both government and citizens for services and improvements that such a plan amendment is irreversible except perhaps in the geologic scale of time.

EFFECTS FOUND NOT TO BE OF CONSEQUENCE AS A RESULT OF AN AMENDMENT TO URBANIZE RIVER ROAD ARE:

1. No existing resident will be displaced.

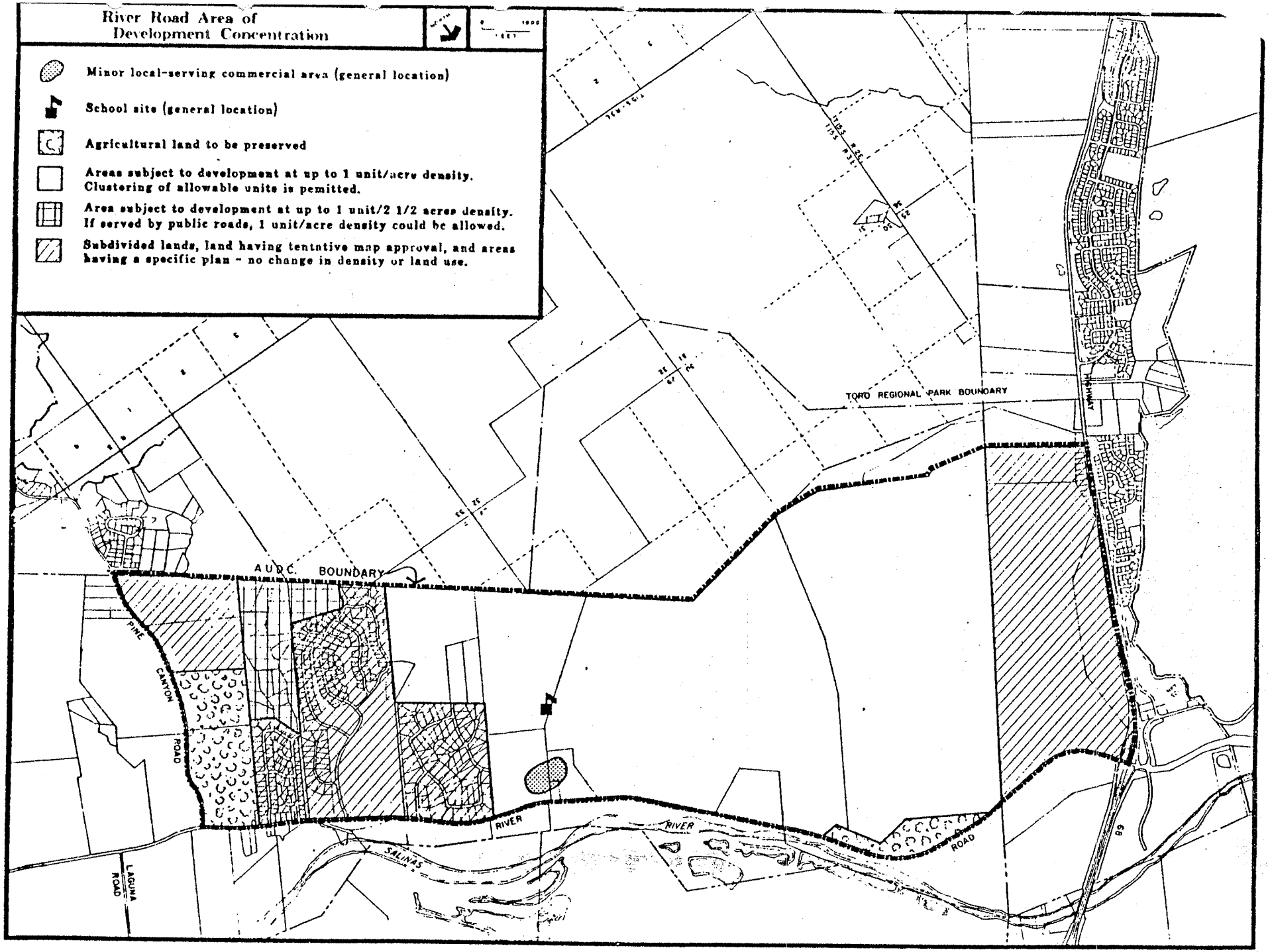
2. The need for new housing is not generated.

3. The project does not conflict with airport land use.

4. The project could save some prime land (but may not).

5. There is probably not the water supply problem here that exists in North Monterey County.

6. Several potential impacts could be mitigated, they are: loss of rare plants, historical sites, flood danger, erosion, and local circulation. The economic cost of reducing the environmental impacts is not known.


River Road Area of
Development Concentration
Minor local-serving commercial area (general location)
School site (general location)
Agricultural land to be preserved
Areas subject to development at up to 1 unit/acre density.
Clustering of allowable units is permitted.
Area subject to development at up to 1 unit/2 1/2 acres density.
If served by public roads, 1 unit/acre density could be allowed.
Subdivided lands, land having tentative map approval, and areas
having a specific plan - no change in density or land use.
TORO REGIONAL PARK BOUNDARY
A.U.D.C. BOUNDARY
PINE CANYON ROAD
RIVER
SALINAS RIVER
LAGUNA ROAD
ROAD
68

ENVIRONMENTAL RECOMMDATION AND INITIAL STUDY

MEETING: BOARD OF SUPERVISORS OF JANUARY 8, 1980

PROJECT: LAS PALMAS SPECIFIC PLAN FILE NO. PC-3934

APPLICATION TYPE: SPECIFIC PLAN

LOCATION: SOUTH SIDE OF RIVER ROAD SOUTH OF HIGHWAY 68 APPROXIMATELY 7 MILES SOUTHWEST OF SALINAS IN THE TORO AREA

PRESENT: RANCH PROPERTY OF 1577 ACRES ZONED; F-V-B-5, 40 ACRE MINIMUM; SC/1-E-V; K-V-E-B-A NOW WITH EXISTING RANCH BUILDINGS AND OPERATING ROW CROP AND CATTLE RANCH.

PROPOSED: 550 SINGLE FAMILY UNITS ON MINIMUM 10,400 SQ FOOT LOTS; 150 SINGLE FAMILY UNITS ON 1.0 ACRE MINIMUM LOTS; 878 MULTIPLE FAMILY UNITS; 10 ACRE SCHOOLSITE 40 AC SEWAGE TREATMENT PLANT; 713 ACRE OPENSPACE TO BE DESCRIBED BY SPECIFIC PLAN

PLAN: TORO AREA MASTER PLAN

PLAN DESIGNATION: RANGELAND/AGRICULTURAL

PROJECT CONSISTENCY STATUS* _____ CONSISTENT _____ INCONSISTENT

THE BOARD FOUND THAT THE IDEA OF SUCH RESIDENTIAL DEVELOPMENT WAS CONCEPTUALLY CONSISTENT WITH THE TORO AREA MASTER PLAN, OCTOBER 23, 1979. THE BOARD DIRECTED THE STAFF TO PROCEED WITH A SPECIFIC PLAN TO CONSIDER ALL LEGALLY REQUIRED FACETS OF THE DEVELOPMENT OF THIS PROPERTY.

SEE MAP (ATTACHED). ZONING SECTIONS 10-9H AND 10-10H

THE (STAFF) PLANNING COMMISSION OTHER _____ MAKES THE FOLLOWING ENVIRONMENTAL RECOMMENDATION: FROM AN INITIAL STUDY (SEE REVERSE)

IT HAS BEEN DETERMINED THAT THIS PROJECT [X] MAY, [ ] WILL NOT HAVE A SIGNIFICANT IMPACT(S) UPON THE ENVIRONMENT AND IT IS RECOMMENDED THAT A

_____ NEGATIVE DECLARATION, OR

_____ NEGATIVE DECLARATION WITH MITIGATION MEASURES (attached),

OR

__X__ ENVIRONMENTAL IMPACT REPORT (EIR), BE PREPARED.

PREPARER Lynnette Mounday TITLE Sr. Planner DATE January 2, 1980

IF YOU HAVE ANY QUESTIONS ABOUT THE MEANING OF THIS INFORMATION PLEASE CONTACT THE ENVIRONMENTAL SECTION OF THE COUNTY PLANNING DEPARTMENT PRIOR TO THE MEETING DATE AT THE TOP OF THIS PAGE BY CALLING 422-9018.

INITIAL STUDY

FILE NO. PC-3934

BASIC ENVIRONMENTAL QUESTIONS

SIGNIFICANT IMPACT	CAN BE MITIGATED	INSIGNIFICANT IMPACT	YES	NO		
X	X*		X		1.	Within a high seismic hazard zone? Zone: IV AND VI OF SEISMIC ELEM
				X	2.	Development on slopes over 30%?
X	X*		X		3.	Potential erosion problem? SOILS ARE ERODIBLE, DEVELOPMENT COULD
X	X*		X		4.	Evidence of geologic instability? ↓ ACCELERATED EROSION YES, SMALL LANDSLIDE AREAS
X	X*		X		5.	Soil constraints for development? SEE LAS PALMAS ENVIRONMENTA RESOURCES INVENTORY FIGS. II AND III
X	X*		X		6.	Potential to degrade surface water? Affected water(s) SALINAS RIVER
						a. Reduce water quality? from possible pollutant laden runoff
						b. Reduce downstream availability?
X	X*		X		7.	Potential to degrade groundwater? IF SEPTIC TANKS ARE USED ON
			x			a. Quality? 1 ACRE LOTS
				x		b. Increase overdraft?
X	X		X		8.	Would increased project runoff be detrimental? YES, IF SILTATION AN
X	X*		X		9.	Within a 100 year floodplain? POLLUTANTS ARE BY-PRODUCTS
X	X*		X		10.	Eliminate native vegetation? Type:
X	X*		X		11.	Rare or endangered species? Species: Delphinium hutchinsonae
X	X*		X		12.	Impact any unique or fragile biotic community? Oak woodland, Coastal scrub, grassland
X	X*		X		13.	Impact a wildlife use area? Type: forage / Range area
				X	14.	Designated scenic area?
X	X*		X		15.	Any significant visual impact? Will depend upon design and placemen
				X	16.	Obnoxious odors? of structures and view from River Road.
				X	17.	Unacceptable noise?
X	X*		X		18.	Traffic impact? River Road and Highway 68 and South Main Street in Salinas, possibly Reservation Road
				X	19.	Conflict with any airport land use plan or land use?
				X	20.	Project access inadequate?
X	X*		X		21.	Air quality degradation on a _____ temporary basis construction activity _____ permanent basis fireplaces, auto emissions
?	?			?	22.	Sewage disposal problem? These items cannot be precisely
?	?			?	23.	Water supply problem? examined without preparation and review
?	?			?	24.	Inadequate school facilities? District: of the Specific Plan
		X		X	25.	Increased fire hazard?
		X		X	26.	Inadequate access for fire trucks?
		X		X	27.	Extension of utilities 1/2 mile or more?
		X		X	28.	Inefficient use of energy?
		X		X	29.	Archaeological site?
X	X*		X		30.	Historical site? COREY HOUSE AND ESTRADA(?) ADOBE RUIN
		X		X	31.	Loss of prime row crop or irrigated farmland?
(X)			X		32.	Loss of grazing land? LAND IN THE RANGELAND/AGRICULTURAL AREA NO LONGER IS
		X		X	33.	Inconsistent with Growth Management Policies? THE LAS PALMAS SPECIFIC PLAN IS CONSISTENT WITH ITEM #3 (SEE BELOW)
		X		X	34.	Conflicts with neighboring land use? ATTACHED TO ZONING MAP
		X		X	35.	Generates the need for new housing?
(X)			X		36.	Adverse cumulative effect? TRAFFIC, AIR POLLUTION, LOSS OF RANGELAND, LOSS OF OPEN SP
				X	37.	Displace existing residents?
(X)			X		38.	Is growth inducing? WILL FURTHER ENCOURAGE GROWTH ON RIVER ROAD, AND MAY PROVIDE SOME SERVICES TO IMPLEMENT THAT GROWTH
						TO BE ANSWERED FOR SPECIFIC OR GENERAL PLAN PROJECTS ONLY:
				X	39.	Short term benefits at expense of long-term benefits? HOUSING ① BENEFITS WOULD BE LONG-TERM, ECONOMIC GROWTH OF CONSTR
			X		40.	Irreversible commitment of land or irreplaceable resources? land COMMITTED FOR RESIDENTIAL WILL PERMANENTLY PRECLUDE RANCHING

① DUCTION INDUSTRY WOULD BE SHORTERM—

NOTES:

CIRCLED ITEMS HAVE NO FEASIBLE MITIGATION MEASURES

* Many items checked yes pose a potentially significant impact, however appropriate mitigation measures discussed in the EIR may reduce impacts to insignificant levels. The resolution of potentially significant impacts and the discussion in an EIR will also serve to provide the concerned public with information on this large scale project.

OPR and Growth Management
Checklist

Areas of Possible
Conflict:

X 1. Applicable Plan TORO AREA MASTER PLAN
(a) Plan Designation RURAL RESIDENTIAL EXPANSION & RANGELAND/AGRICULTURE
(b) Plan Density 1 UNIT/AC AND 3 ACRES/UNIT
(c) Is there any internal Plan inconsistency relative to the project? X Yes ____ No If "yes", give most restrictive Plan designation 5 AC/UNIT
(d) If no density is depicted on the Plan which covers the project site, give the appropriate designation and density from the OPR Extension Letter ____ 3-5 AC/UNIT FOR RANGELAND AGRICULTURE
Is project consistent with this designation ____ Yes X No NOT AS NOW PROPOSED HOWEVER IT IS THE PURPOSE OF A SPECIFIC PLAN TO RESOLVE THESE ISSUES

X 2. Does the proposed project conform to the County Low and Moderate Income Housing Ordinance? ____ Yes X No NO ORDINANCE YET ADOPTED

X 3. What is the project areas wildland fire hazard rating? HIGH AND MODERATE
Has applicant submitted "adequacy of access" report? ____ Yes X No

X 4. Does project include frontage on lakes, beaches, rivers, or streams inventoried in the Conservation/Open Space Element or other portions of the General Plan? ____ Yes X No If yes, has applicant delineated areas of existing and/or potential access to the resources? ____ Yes ____ No

X 5. Is the project located in close proximity to any of the following?
(a) highways and freeways ____ Yes X No
(b) primary arterials and major local streets X Yes ____ No
(c) passenger and freight railroad systems ____ Yes X No
(d) ground rapid transit systems ____ Yes X No
(e) airports ____ Yes X No
(f) industrial plants ____ Yes X No
(g) other ground stationary sources ____ Yes X No
If any of the above are checked "yes", indicate distance from noise source ABUTS RIVER ROAD AND HELICOPTERS FROM FORT ORD PASS OVERHEAD NEARBY
If yes, has applicant submitted Community Noise Equivalent Level (CNEL) Contours ____ Yes X No

X 6. Is the project in close proximity to any of the following?
(a) schools X Yes ____ No WHEN CONSTRUCTED WOULD INCLUDE A SCHOOL WITHIN THE PROJECT
(b) hospitals ____ Yes X No
(c) resthomes ____ Yes X No
(d) long term medical or mental care facilities ____ Yes X No
(e) other noise sensitive areas? ____ Yes X No
if yes, specify ____
If any of the above are checked "yes", indicated distance to project site WITHIN PROJECT SITE
If any of the above are checked "yes", has applicant submitted results of on-site noise monitoring ____ Yes X No NOT APPLICABLE AT THIS TIME - SHOULD FOLLOW STATE STANDARDS

X 7. Is the proposed project any of the following?
(a) school X Yes ____ No
(b) hospital ____ Yes X No
(c) resthome ____ Yes X No
(d) long term medical or dental care facility ____ Yes X No
(e) other noise sensitive use ____ Yes X No
if yes, specify ____
If any of the above are checked "yes", has applicant submitted results of on-site noise monitoring? ____ Yes ____ No

X 8. Is the proposed use in compliance with State Office of Noise Control Guidelines (1/1/76)? ____ Yes X No

____ 9. A review of the project with regard to the Growth Management Amendment to the General Plan indicates that: CONSISTENT WITH ITEM #3 OF THE GROWTH MANAGEMENT AMENDMENT TO THE GENERAL PLAN AS ADOPTED OCTOBER 9, 1979 ATTACHED ON ZONING MAP

11/19/79

ENVIRONMENTAL RECOMMENDATION AND INITIAL STUDY

MEETING: BD. OF SUPERVISORS OF _____

PROJECT: RIVER ROAD AREA FILE NO. _____

APPLICATION TYPE: GENERAL PLAN AMENDMENT

LOCATION: DEVELOPING AREA FROM HIGHWAY 68 SOUTHEAST ALONG RIVER RD TO PINE CANYON ROAD

PRESENT: PLAN NOW DESIGNATES THE AREA AS "RURAL RESIDENTIA EXPANSION", "COMMERCIAL", "AGRICULTURAL", RANGELAND/AGRIC

PROPOSED: "AREA OF URBAN CONCENTRATION"

PLAN: TORO AREA MASTER PLAN

PLAN DESIGNATION: AS ABOVE

PROJECT CONSISTENCY STATUS: _____ CONSISTENT _____ INCONSISTENT

→ NOT APPLICABLE

NOTES: 1) THE AREA DESCRIBED IN THE ATTACHED MAP VARIES IN ELEVATION TOPOGRAPHY AND PHYSICAL CHARACTERISTICS, IMPACTS VARY AREA BY AREA.

2) CONVERTING LOW DENSITY RURAL RESIDENTIAL, AGRICULTURAL, AND RANGELAND TO URBAN CONCENTRATIONS IMPLIES SIGNIFICANT CHANGES TO THE ENVIRONMENT IN TERMS OF OPEN SPACE LOST, CHANGE OF CHARACTER, INCREASE IN TRAFFIC TRAFFIC ACCIDENTS AND AIR POLLUTION, ENERGY USE

3) PUBLIC SERVICE INCREASES AND INCREASES DUE TO INCREASED POPULATION ARIDITY HEALTH SIDES REQUIREMENTS AND INCREASING FEDERAL SIDES FOR CLEAN WATER AND CLEAN AIR MEAN THAT PROVIDING ADEQUATE SCHOOLS, ROADS, SEWERS, WATER DISTRIBUTION, HEALTH CARE POLICE SERVICE PUBLIC LIBRARY AND EMERGENCY SERVICES ALL THESE WARRANT DISCUSSION

SECTION 908 OF CEQA GUIDELINES IS ATTACHED TO THIS STUDY FORM.

4) NO SEPARATE EIR SHALL BE PREPARED FOR THIS PROPOSAL, HOWEVER PURSUANT TO CEQA GUIDELINES SECTION 908 THE FUNCTIONAL EQUIVALENT OF AN EIR WILL BE INCLUDED BY STAFF IN THE TEXT OF THE STUDY, GOALS AND POLICY STATEMENTS THAT ILLUSTRATE AND REPORT ON THIS PROPOSAL

THE (STAFF) PLANNING COMMISSION OTHER _____ MAKES

THE FOLLOWING ENVIRONMENTAL RECOMMENDATION: FROM AN INITIAL STUDY (SEE REVERSE)

IT HAS BEEN DETERMINED THAT THIS PROJECT ☒ MAY, ☐ WILL NOT HAVE A

SIGNIFICANT IMPACT(S) UPON THE ENVIRONMENT AND IT IS RECOMMENDED THAT A

_____ NEGATIVE DECLARATION, OR

_____ NEGATIVE DECLARATION WITH MITIGATION MEASURES (attached),

OR

↘ ENVIRONMENTAL IMPACT REPORT (EIR), BE PREPARED AS PART OF SEE CEQA SECTION 908. THE AMENDMENT.

PREPARER LYNNE H. MOUNDAY TITLE SR. PLANNER DATE 11-13-80

IF YOU HAVE ANY QUESTIONS ABOUT THE MEANING OF THIS INFORMATION PLEASE CONTACT THE ENVIRONMENTAL SECTION OF THE COUNTY PLANNING DEPARTMENT PRIOR TO THE MEETING DATE AT THE TOP OF THIS PAGE BY CALLING 422-9018.

INITIAL STUDY

FILE NO. _____

SIGNIFICANT IMPACT	CAN BE MITIGATED	INSIGNIFICANT IMPACT	YES	NO	BASIC ENVIRONMENTAL QUESTIONS
X			X		1. Within a high seismic hazard zone? Zone: ZONES II THRU VI
X			X		2. Development on slopes over 30%?
X			X		3. Potential erosion problem?
X			X		4. Evidence of geologic instability? SALINAS RIVER BANKS, ERODED BLUFFS, LANDSLIDES
X			X		5. Soil constraints for development? HIGH GROUND WATER, STEEP SLOPES CLAY-EXPANSIVE SOILS, HIGH PERC RATES SOILS SUBJECT TO INUNDATION.
X			X		6. Potential to degrade surface water? Affected water(s)
					(a.) Reduce water quality? RUNOFF SILTATION, PETROLEUM, PESTICIDE
					b. Reduce downstream availability? AND HOUSEHOLD CHEMICAL RESIDUES
X	X		X		7. Potential to degrade groundwater? IF SEPTIC TANKS, NO IF ADEQUATE
					a. Quality? SEWERS AND TREATMENT OF EFFLUENT
					b. Increase overdraft? NO.
					8. Would increased project runoff be detrimental? YES, UNLESS EROSION IS CONTROLLED
X			X		9. Within a 100 year floodplain? PARTIALLY
X			X		10. Eliminate native vegetation? Type: GRASSLAND, OAK WOODLAND
X			X		CHAMISE/COYOTE BRUSH CHAPPARAL, RIPARIAN
					11. Rare or endangered species? Species:
X			X		12. Impact any unique or fragile biotic community? RIPARIAN ALONG SALINAS RIVER - ECOSYSTEM ALTERED BY RUNOFF DEVELOPMENT
X			X		13. Impact a wildlife use area? Type: REALIGNMENT
X			X		14. Designated scenic area? ALONG HWY 68 AT TORO VISTA
X			X		15. Any significant visual impact? TIGHTLY DEVELOPED UNITS SUCH AS
X			X		16. Obnoxious odors? INDIAN SPRINGS ARE POTENTIALLY UNKNOWN
X			X		17. Unacceptable noise?
X			X		18. Traffic impact?
		X		X	19. Conflict with any airport land use plan or land use?
X	X		X		20. Project access inadequate? UNDER THIS CONCEPT WIDENING,
X			X		ADDITIONAL LANES WIDER SHOULDERS, POCKETS, AND TRAFFIC CONTROL
					21. Air quality degradation on a COULD EVENTUALLY BE IMPROVED
					_____ temporary basis
					_____ permanent basis
X			X		22. Sewage disposal problem? DENSITY REQUIRES A TREATMENT PLANT TIE
		X		X	23. Water supply problem? IMPLEMENTATION IS NOT POLITICALLY OR ECONOMIC
X			X		24. Inadequate school facilities? District: EASY TO ACHIEVE
		X	X		25. Increased fire hazard? COMMERCIAL PERHAPS INDUSTRIAL FLOW REQS
X			X		26. Inadequate access for fire trucks?
X			X		27. Extension of utilities 1/2 mile or more? NATURAL GAS CABLE TV
X			X		28. Inefficient use of energy? COMMUTING, HAULING SUPPLIES IF ON A
X			X		29. Archaeological site? UNLESS COMPLETE AREAWIDE SURVEY SHOWS
X			X		30. Historical site? (OTHERWISE) ADOBE ON LAS PALMAS
X			X		31. Loss of prime row crop or irrigated farmland? AT PINE CANYON RD AND
					RIVER ROAD AND ALONG THE LAS PALMAS RIVER ROAD FRONTAGE AND
X			X		32. Loss of grazing land? IN HIGHER ELEVATIONS) BETWEEN THE RIVER AND RIVER RD
X			X		33. Inconsistent with Growth Management Policies? SERVICES DO NOT NOW
					EXIST AT THE URBAN LEVEL AND IT IS NOT WITHIN THE SPHERE OF INFLU
X			X		34. Conflicts with neighboring land use? OF SALINAS
		X		X	35. Generates the need for new housing? → COULD CONFLICT WITH AGRICULTURE AND INDUSTRY AT SOME LEVELS
X			X		36. Adverse cumulative effect? HWY 68, SCHOOLS, SEWAGE, PIPE SERVICE
		X		X	37. Displace existing residents?
X			X		38. Is growth inducing? DENSITY WOULD INCREASE - PRESSURE FOR
					RURAL PROPERTIES WOULD EXTEND FURTHER OUT
					TO BE ANSWERED FOR SPECIFIC OR GENERAL PLAN PROJECTS ONLY: RIVER ROAD
X			X		39. Short term benefits at expense of long-term benefits?
X			X		40. Irreversible commitment of land or irreplaceable resources?
					MASSIVE ECONOMIC COMMITMENT FORECLOSES POSSIBILITY
					OF EASY RECONVERSION TO GRAZING LAND

NOTES:

APPENDIX B

Comments Received: EIR 80-100 Las Palms Ranch Specific Plan
EIR 81-113 River Road Area of Development Concentration

1.	Monterey County Sheriff's Office	Received 9/10/82
2.	Monterey County Public Works Department	Received 9/17/82
3.	Monterey County Health Department	Received 9/22/82
4.	California Regional Water Quality Control Board	Received 9/23/82
5.	Monterey-Salinas Transit	Received 9/29/82
6.	State Clearinghouse (for Environmental Review)	Received 10/4/82
	Enclosure #1 - California Dept. of Fish & Game	
	Enclosure #2 - (Same as Letter #4)	
7.	Letter from Sharon C. Heller, Area Resident	Received 10/4/82
8.	Letter from Clara Sargenti, Area Resident	Received 10/5/82
9.	Second Letter from State Clearinghouse	Received 10/11/82
	Enclosure #1 - California Dept. of Transportion	

Memorandum · SHERIFF'S OFFICE
MONTEREY COUNTY

TO : Lynne H. Mounday, Planning Department DATE: September 8, 1982

FROM : D. B. Cook, Sheriff, by Esther Crespo, Crime Prevention Unit

SUBJECT: EIR 80-100 River Road Area of Development Concentration

We request that you add the following information to that presently shown in the draft EIR presented to our offices for recommendations.

IMPACT CONCERNS:

The cumulative impact of increase in calls for services resulting from development of the several projects in the River Road and Highway 68 areas will have a SIGNIFICANT impact on Sheriff's Department services in spite of the fact that this area is presently considered a low crime area.

Statistics show that approximately 3 of every 100 residents will require police services at any given time, as victims of a felony. 7 out of each 100 residents will require police services for a variety of needs. Demands at full development of other Sheriff's services (Corrections, Civil, Records and Coroner-Public Administrator functions) will also increase as a direct result of population growth.

Response time to the River Road and Highway 68 development sites will be strongly affected by the increase in traffic levels. Appropriate planning should also be incorporated to ensure timely and safe response to emergency situations.

MEASURES FOR CONSIDERATION:

Projected commercial park: Design and construction of the commercial footage is of extreme importance not only to the prevention of crimes at these locations, but to orderly and efficient response to emergency situations and alarm activations in commercial parks.

Plans must incorporate specific guidelines for appropriate use of physical security hardware. Doors, particularly with glass within 40 inches, MUST be equipped with DOUBLE cylinder deadbolts to preclude breaking of glass and easy entry. Secondary and service doors will require a similar locking mechanism to preclude defeating the out of the way points of egress and becoming the main targets for burglary.

Layout of the commercial square footage must allow for complete access to sites by patrol units in the interest of effectiveness, safety and performance.

Residential development: Adherence to crime prevention suggestions and design measures must be effected to assist in preventive program approaches in effect countywide:

Cul-de-sacs: Street design including cul-de-sacs must provide optimum emergency service access and turning capabilities. Cul-de-sacs, ideally, should be no longer than 800 ft.

Numbering systems: Plans for development should incorporate overall uniformity in design for clockwise, consistent numbering of homes that will not be affected by construction in phases. House numbers should be 4 inches in size, light on dark background or vice versa.

Street Names: Special care must be taken to preclude repetition of street names within the unincorporated area and the extensive use of one street nomenclature diversified by using Place, Court, Drive, Way, etc., is discouraged. Street nomenclatures should be clearly posted and be readily visible to headlight illumination.

Shrubbery-Landscaping: Shrubbery and landscaping directly surrounding the residential structure should not obstruct windows and main entrances. Houses built on split level or two-story plan should not have large trees within range to provide access to second story windows or roof.

Windows and sliding glass doors: These entry points should be equipped with auxiliary locking devices AT THE TIME OF CONSTRUCTION that will preclude illegal entry by lifting and/or prying.

Entry doors: Main door and door from garage into home should be of solid core construction and have a one-inch deadbolt as a locking device. If glass is within 40 inches of these doors, the one-inch deadbolt lock should be a double cylinder deadbolt.

Alarm systems: The Sheriff's Department does not discourage the installation or use of alarm systems. There is, however, an ordinance in effect for the regulation of false alarms. An application must be filed with the Sheriff prior to installation of a new system and the regulatory guidelines followed.

Recommendations are provided for reduction of residents' vulnerability to crime and to enhance residential security while simultaneously facilitating patrol functions.

Sheriff's Department personnel will not be increased as a direct result of development of the River Road Area plan. It will affect the cumulative impact on services and overall growth may require Board action authorizing additional personnel.

Very truly yours,

D. B. "Bud" Cook
Sheriff-Marshal-Coroner-Public Administrator

/ecc

Memorandum

DEPARTMENT OF PUBLIC WORKS
COUNTY OF MONTEREY

TO : Public Service

DATE: September 16, 1982

FROM : Traffic

SUBJECT: RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION - DRAFT EIR

2.7 TRAFFIC

Page 64 - Setting - The report incorrectly implies that our department established the volume of 900 vehicles per hour for level of service C. The remainder of the sentence after "capacity for a two lane highway" can be omitted.

The 1980 volume on Highway 68 was 16,800 vehicles per day. The 1981 volume was 16,700 vehicles per day.

Page 66 - Funding for a Toro Park interchange has been included in the State Transportation Improvement Program.

Volumes on local roads should be compared to service volumes for Level of Service C, not to capacity volumes.

IMPACTS

Page 67 - Our review of the Las Palmas Ranch Traffic Study recommended that a traffic generation rate of 8.0 trips per day per unit be used for single family dwelling units. Experience suggests no change. The traffic estimates of this draft are therefore somewhat low and are discussed on page 73.

Page 70 - The report compares projected traffic volumes to roadway capacities for River Road and for the four lane section of Highway 68. Projected volumes should be compared to service volumes for Level of Service C to determine if level C will be maintained. Furthermore, regardless of whether or not level C can be maintained on Highway 68 east of River Road, this has no bearing on whether improvements would be required on the two lane portion west of River Road. The report is incomplete.

The level of service analysis is inadequate for the impacts based on the Existing Policy Plan. The service volume for level of service C on River Road should be estimated to determine if roadway improvements are needed (employment of the Existing Policy Plan may require four lanes for level of service C). Furthermore, the report presents no basis to indicate that ramp levels of service would improve by one level.

Page 73 - In responding to our department's second concern (dated October 28, 1981) the report states, ". . . Level of Service C is attained in very few urban settings . . .", and "Level of Service D for a freeway on-ramp during short periods is not unusual in an urban setting . . .". Our department has serious concerns regarding these responses. First, neither Highway 68 nor River Road meet the definition of urban arterials and therefore must be analyzed as rural roads. Second, urban and rural roads are evaluated be different sets of standards. Third, the Monterey County Transportation Plan's goal of level of service C applies to all area roads.

MITIGATION MEASURES

1.a & b. - The limits of the four lane section, being based on projected traffic volumes and levels of service, should be more closely examined.

Memorandum •

DEPARTMENT OF P[illegible]IC WORKS
COUNTY OF MONTEREY

) : Planning Department, ATTN: Lynne Mounday DATE: September 17, 1982

.OM : Public Service

BJECT: DRAFT EIR's

1. River Road Area of Development Concentration
2. Markham Ranch Subdivision

Attached are our comments on the two subject drafts.

RPW/emd
Attachments

Memorandum

HEALTH DEPARTMENT
MONTEREY COUNTY

TO : Lynne Mounday, Planning Department

DATE: 9/21/82

FROM : Al Friedrich, Environmental Health

SUBJECT: D.E.I.R. for the River Road Area of Development Concentration

Our office has reviewed the above D.E.I.R. and assuming that sewage disposal is by treatment plant and not septic system, we can offer the following comments in regard to the Las Palmas Proposal:

1. Dual or backup treatment facilities should be constructed for emergency and/or maintenance purposes.

2. Standby power be provided on site in case of electrical failure.

3. Construction of waste storage ponds (lined) with 120 day minimum storage capacity.

4. Spray irrigation be limited to slopes of less than 10 percent to avoid potential erosion.

5. Natural and manmade watercourses be protected from spray irrigation contamination.

6. Construction of an emergency raw sewage storage pond (lined) with a 48 hour storage capacity.

7. Monitoring well on site be dug to detect any sewage contamination in water supply wells.

8. A minimum of one acre for 10,000 gallons of spray.

9. Spray irrigation be conducted on only two thirds of the open space or common area available at any one time to allow a resting period for a portion of the open space.

10. A minimum of one-half acre set aside for each 10,000 gallons sprayed so rotation of sprayfields can be accomplished.

1.d. - Left turn channelization at the Highway 68 on-ramps (not off-ramps), may be beneficial. However, have the geometrics been reviewed to determine what work will be required to make them fit.

2.a. - Level of service analysis must be made based on this premise to determine what improvements would be required.

3. - These cannot be considered mitigation of this project unless the developers of the project (or at least entities other than the general public) propose to construct these improvements.

4. - The County does not construct State highways. The Cities of Monterey and Del Rey Oaks are also involved. The first sentence represents a true mitigating measure for this project and should be given serious consideration.

BH/cw

11. The minimum level of treatment should be secondary treatment for open spaces not accessible to the public and secondary treatment with coagulation, sedimentation and filtration plus chlorination for areas which are open to the public (e.g. golf courses).

Al Friedrich R.S.
Senior Sanitarian

State of California — The Resources Agency of California

Memorandum

To : State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

Date: September 21, 1982

From : **California Regional Water Quality Control Board**
Central Coast Region—~~1122 Laurel Lane~~ 1102-A LAUREL LANE
San Luis Obispo, California 93401

Subject: DEIR - RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION (ADC), SCH 81081111

The DEIR discusses general development possibilities in the ADC located immediately south of the Salinas River near its intersection with Highway 68. The ADC covers a total of 2,539 acres. Some of the areas are presently being developed (e.g., Indian Springs, Pedrazzi, and Vista del Rio subdivisions). The largest undeveloped area in the ADC, and most specifically addressed in this DEIR, is the Las Palmas Ranch, which covers 1523 acres. For Las Palmas Ranch, 1578 units are proposed. A community sewerage system, including pond treatment and disposal by irrigation, is proposed for the as yet undeveloped areas of the ADC.

Our primary concerns relate to wastewater disposal and erosion control. The basic concept of the sewage treatment and disposal system outlined in the DEIR appears to be feasible. The DEIR gives no specific details on the system, which would have to be submitted to the Regional Board. Approval of the sewage system would have to be granted by the Regional Board in the form of Waste Discharge Requirements prior to any development. Such requirements could be considered only after details of the collection, treatment, and disposal systems had been submitted along with a completed Report of Waste Discharge. Details required would include: lay out and schematics; hydrologic and geologic information; engineering and technical data; reclamation specifics (i.e., crops, suitable application rates, irrigation practices, winter storage, etc.); and operational procedures. We agree with the DEIR that a project of this magnitude will require formation of a public entity to operate and maintain the sewage collection, treatment, and disposal facilities. We also agree that flood protection would be required for the treatment facilities. Disposal area flood protection would not be required if adequate winter storage were provided.

The DEIR discusses two other sewage handling alternatives: expansion of and connection to the Salinas Utility Services system, and connection to the Monterey Regional Water Pollution Control Agency system. Due to a history and variety of problems plaguing the Salinas Utility Services system, we agree with the DEIR that it is "unlikely" to be a suitable alternative. Any such expansion would have to address the details listed above. The "Regional" wastewater treatment plant remains a possibility, but Clean Water Grant funds presently do not exist for near future

construction of the plant. "Hopes" for completion of the "Regional" plant by mid-1980's, as mentioned in the DEIR, are very dim at this time.

The DEIR mentions the possibility of iron and manganese removal from supply water. Disposal of wastes from such a system will require Regional Board staff review and may require consideration of Waste Discharge Requirements by the Regional Board.

Drainage and erosion controls are a concern with concentrated development of the magnitude outlined in the DEIR. We agree with the DEIR that grading and erosion control plans would have to be prepared and implemented in accordance with appropriate County Ordinances.

for KENNETH R. JONES
Executive Officer

EJG:emt

cc: AMBAG
Monterey County Planning Department
Monterey County Health Department
Monterey County LAFCO

Monterey-Salinas Transit

80-150 River Road

September 27, 1982

Mr. L. H. Mounday, Senior Planner
Monterey County Planning Department
Post Office Box 1208
Salinas, California 93902

Dear Mr. Mounday:

Enclosed are comments on Draft EIR's sent to Monterey-Salinas Transit:

1. Laguna Seca Office Park EIR 80-109
2. Markham Ranch Subdivision EIR 81-114
3. River Road ADC EIR 80-100

Thank you for the opportunity to comment.

Sincerely,

William P Bernier

William P. Bernier
Transit Planner

WPB:bhc
Enclosure

cc: AMBAG A-95 Review

ONE RYAN RANCH ROAD, MONTEREY, CALIFORNIA 93940, (408) 899-2558 / 424-7695

Comments on Draft EIR for River Road ADC
(EIR 80-100)

As development continues along River Road, the County should require construction and maintenance of a Park-and-Ride, Kiss-and-Ride facility at the intersetion of Highway 68. This facility would assist ride sharing and transit usage.

State of California
GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

EDMUND G. BROWN JR.
GOVERNOR

(916/445-0613)

October 1, 1982

Mr. Lynne H. Mounday
Monterey County Planning
Department
240 Church Street, P. O. Box 1208
Salinas, CA 93902

SUBJECT: SCH# 81081111 RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION, LAS PALMAS

Dear Mr. Mounday,

State agencies have commented on your draft environmental impact report (EIR). If you would like to discuss their recommendations and concerns, contact the staff noted in the comments. The following is in summary:

DEPARTMENT OF FISH AND GAME

The department concurs with the recommendation on Page 56 for managing open space. The mitigations concerning the protection of mature valley oaks should be reviewed and approved by experts in range ecology and implemented concurrently with the first phase of development.

SAN LUIS OBISPO WATER QUALITY CONTROL BOARD

The Board's primary concern relates to wastewater disposal and erosion control. The draft EIR gives no specific details on the system, which would have to be submitted to the Regional Board. Approval of the sewage system would have to be granted by the Regional Board in the form of Waste Discharge Requirements prior to any development. Such requirements could be considered only after details of the collection, treatment, and disposal systems had been submitted along with a completed Report of Waste Discharge.

State Clearinghouse

When preparing the final EIR, you must include all comments and responses (CEQA Guidelines, Section 15146). The certified EIR must be considered in the decision-making process for the project. In addition, we urge you to respond directly to the agencies' comments by writing to them, including the State Clearinghouse number on all correspondence.

A 1981 Appellate Court decision in Cleary v. County of Stanislaus (118 Cal.App.3d 348) clarified requirements for responding to review comments. Specifically, the court indicated that comments must be addressed in detail, giving reasons why the specific comments and suggestions were not accepted.

The responses should indicate any factors of overriding significance which required the suggestions or comments to be rejected. Responses to comments must not be conclusory statements but must be supported by empirical or experimental data, scientific authority or explanatory information. The court further said that the responses must be a good faith, reasoned analysis.

Section 15002 (f) of the CEQA Guidelines requires that a governmental agency take certain actions if an EIR shows substantial adverse environmental impacts could result from a project. These actions include changing the project, imposing conditions on the project, adopting plans or ordinances to avoid the problem, selecting an alternative to the project, or disapproving the project. In the event that the project is approved without adequate mitigation of significant effects, the lead agency must make written findings for each significant effect (Section 15088) and it must support its actions with a written statement of overriding considerations for each unmitigated significant effect (Section 15089).

If the project requires discretionary approval from any state agency, the Notice of Determination must be filed with the Secretary for Resources, as well as with the County Clerk.

Please contact Anna Polvos at (916) 445-0613 if you have any questions.

Sincerely,

Charles E. Brandes
Deputy Director
Projects Coordination

Anna Polvos
State Clearinghouse

CEB/ap
attachments

cc: Resources Agency

State of California

The Resources Agency

Memorandum

To : 1. Jim Burns, Projects Coordinator
Resources Agency

2. Monterey County Planning Department
P. O. Box 1208
Salinas, CA 93902

Date : September 16, 1982

From : Department of Fish and Game

Subject: Draft EIR, River Road Area of Development Concentration, Monterey County; SCH 81081111

Department of Fish and Game personnel have reviewed the subject document and find it generally describes project impacts on fish and wildlife. We concur with the recommendation on Page 56 for managing open space (including special attention to the protection of mature valley oaks). These mitigation measures should be reviewed and approved by experts in range ecology and implemented concurrently with the first phase of development.

Department of Fish and Game personnel are available to discuss our concerns in more detail. To arrange a meeting, contact Mr. Bruce Elliott, Wildlife Biologist, Department of Fish and Game, 2201 Garden Road, Monterey, CA 93940, telephone (408) 649-2890.

E C Fullerton
Director

State of California

ne Resources Agency of California

Memorandum

To : State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

Date: September 21, 1982

From : **California Regional Water Quality Control Board**
Central Coast Region—1122 Laurel Lane 1102-A LAUREL LANE
San Luis Obispo, California 93401

Subject: DEIR - RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION (ADC), SCH 81081111

The DEIR discusses general development possibilities in the ADC located immediately south of the Salinas River near its intersection with Highway 68. The ADC covers a total of 2,539 acres. Some of the areas are presently being developed (e.g., Indian Springs, Pedrazzi, and Vista del Rio subdivisions). The largest undeveloped area in the ADC, and most specifically addressed in this DEIR, is the Las Palmas Ranch, which covers 1523 acres. For Las Palmas Ranch, 1578 units are proposed. A community sewerage system, including pond treatment and disposal by irrigation, is proposed for the as yet undeveloped areas of the ADC.

Our primary concerns relate to wastewater disposal and erosion control. The basic concept of the sewage treatment and disposal system outlined in the DEIR appears to be feasible. The DEIR gives no specific details on the system, which would have to be submitted to the Regional Board. Approval of the sewage system would have to be granted by the Regional Board in the form of Waste Discharge Requirements prior to any development. Such requirements could be considered only after details of the collection, treatment, and disposal systems had been submitted along with a completed Report of Waste Discharge. Details required would include: lay out and schematics; hydrologic and geologic information; engineering and technical data; reclamation specifics (i.e., crops, suitable application rates, irrigation practices, winter storage, etc.); and operational procedures. We agree with the DEIR that a project of this magnitude will require formation of a public entity to operate and maintain the sewage collection, treatment, and disposal facilities. We also agree that flood protection would be required for the treatment facilities. Disposal area flood protection would not be required if adequate winter storage were provided.

The DEIR discusses two other sewage handling alternatives: expansion of and connection to the Salinas Utility Services system, and connection to the Monterey Regional Water Pollution Control Agency system. Due to a history and variety of problems plaguing the Salinas Utility Services system, we agree with the DEIR that it is "unlikely" to be a suitable alternative. Any such expansion would have to address the details listed above. The "Regional" wastewater treatment plant remains a possibility, but Clean Water Grant funds presently do not exist for near future

construction of the plant. "Hopes" for completion of the "Regional" plant by mid-1980's, as mentioned in the DEIR, are very dim at this time.

The DEIR mentions the possibility of iron and manganese removal from supply water. Disposal of wastes from such a system will require Regional Board staff review and may require consideration of Waste Discharge Requirements by the Regional Board.

Drainage and erosion controls are a concern with concentrated development of the magnitude outlined in the DEIR. We agree with the DEIR that grading and erosion control plans would have to be prepared and implemented in accordance with appropriate County Ordinances.

for KENNETH R. JONES
Executive Officer

EJG:emt

cc: AMBAG
Monterey County Planning Department
Monterey County Health Department
Monterey County LAFCO

Oct. 1. 1982

To: Monterey County Planning Dept.

From: Sharon C. Heller

Regarding: Draft Environmental Impact Report for the River Road Area of Development Concentration

For the purposes of this document, the proposed ADC with two alternative specific plans for Las Palmas Ranch, the information, in my opinion, is poorly segregated.

Particularly, the "impact" sections of the proposed Las Palmas Specific Plan based on the existing General Plan policies and the "Areas of Development Concentration" should be more clearly isolated for reader comprehension.

Understandably, a 3 in 1 package has built-in confusions, but citizens of the River Road Area should be able to clearly differentiate data provided in the E.I.R.

Sincerely,

Sharon C. Heller

Sharon C. Heller
22540 Murietta Road
Salinas, CA 93908

Oct. 1, 19[illegible]
1000 River Road
Salinas, Calif. 93908

Lynne Mounday
Senior Planner
Mo. County Planning Dept.

Subject: Draft Environmental Impact Report for the River Road Area of Development Concentration, EIR 80-100.

Dear Sir:

It appears to me that the Draft Report is limited to the Los Palmas project. I believe that there should be further discussion on the needs of the entire River Road area.

A specific point I'd like to address is the anticipated water use. Will not the water to the Castroville area be intercepted?

Yours truly,
Clara Sargenti

State of California
GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

EDMUND G. BROWN JR.
GOVERNOR

October 7, 1982

Mr. Lynne Mounday
Monterey County Planning Dept.
P.O. Box 1208
Salinas, CA 93902

SUBJECT: SCH# 81081111 River Road Area of Development Concentration, Las Palmas

Dear Mr. Mounday:

The enclosed comments on your draft environmental documents were received by the State Clearinghouse after the end of the state review period. We are forwarding these comments to you because they provide information or raise issues which you should address in the final environmental documents.

We have explained to the departments preparing late comments that according to a recent Appellate Court decision, Cleary v. County of Stanislaus, you need not respond to these comments in the final document. However, to ensure the adequacy of the final document and compliance with the intent of CEQA, you should attempt to incorporate these additional comments into the preparation of your final environmental document.

Sincerely,

Anna Fellows

Charles E. Brandes
Deputy Director for Projects Coordination

enclosures

cc: Ken Fellows, DWR
Gary Ruggerone, Caltrans

STATE OF CALIFORNIA—BUSINESS AND TRANSPORTATION AGENCY EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION
P.O. BOX L, SAN LUIS OBISPO 93406
TELEPHONE: (805) 549-3111

October 4, 1982

A-95/CEQA Review
SCH 81081111

Ron Bass
Executive Officer
State Clearinghouse
1400 10th Street
Sacramento, CA 95814

Gentlemen:

Caltrans District 5 review of the DEIR for the River Road Areas of Development Concentration, EIR 800-100 has generated the following comments:

1. Section 2.7 Traffic should have a discussion of the strategies of Transportation Systems Management including impacts of development on the Monterey-Salinas Transit line that serves Hwy 68, and any necessary mitigation such as ridesharing and park and ride lot locations.

2. Mitigation measures on page 74 should add:

   1.(e) Improvement of ramps at Route 68 and River Road will be required to accomodate peak hour traffic volumes resulting from the proposals. (see page 70 for reasons these improvements are required.)

It should be mentioned that where improvements to Highway 68 are required an Encroachment Permit must be obtained from Caltrans before work can be done within State right of way. The party requesting the Permit will be required to provide an environmental evaluation of the area within State right of way. A Cultural Resources Survey, Biological Survey, and any other pertinent evaluation, ie Floodplain, Wetland, etc., must be completed and accompany the Encroachment Permit Application.

Sincerely,

for by J. A. Mullis
Gary Ruggerone
District A-95 Coordinator

DEC 6 1982

REPORT TO MONTEREY COUNTY BOARD OF SUPERVISORS

SUBJECT	BOARD MEETING DATE	AGENDA NUMBER
CERTIFICATION OF EIR 80-100, PC3934 LAS PALMAS RANCH SPECIFIC PLAN, EIR 81-111 RIVER ROAD AREA OF DEVELOPMENT CONCENTRATION GENERAL PLAN AMENDMENT PC4231 RIVER ROAD AREA, DISTRICTS 3 and 5	12/7/82	#22A
DEPARTMENT: PLANNING		

RECOMMENDATION

Certify as final EIRs, EIR80-100 and EIR 81-111 bound as 1 document, with changes to be made as noted on the attachment.

JUSTIFICATION

1) Your board ordered preparation of the Las Palmas Ranch specific plan EIR 80-100 on January 8, 1980. On July 21, 1981 your board ordered preparation of an EIR 81-111 for consideration of the River Road area of development concentration General Plan Amendment.

2) The draft final EIR before you has followed the process detailed by Section 15140 of the California Environmental Quality Act guidelines and Section 15146 regarding compiling of final EIRs and their contents.

3) All consultation, public review, public notice requirements have been met.

4) Comments received during the review period and consultant responses thereto are included verbatim.

5) Certification by your board with the attached changes included, or not so included will complete the Environmental Impact Report process. After discretionary action on this project the final environmental action will be the filing of a notice of determination (CEQA 15084h)

E. W. DeMARS
DIRECTOR OF PLANNING

Attachments: 1. Suggested final changes

cc: Consultant and Applicant

EWD:LHM:jo

Staff suggests that the following changes/corrections be included in the final EIR as certified:

1. Add the letters 'M' and 'N' to Table 1.2 on page 13 to reflect their inclusion on exhibit 1.4 on page 10.

2. The "dispersed park sites" described in the text at the bottom of page 11 and top of page 12 should be added to exhibits 1.3 (page 9) and 1.4 (page 10) as appropriate.

3. Change all EIR references to "proposed" River Road ADC Criteria to read adopted River Road ADC Criteria, see page 21, 1st sentence of last paragraph for an example.

4. Change number 2 under "public works" page 23 to read "The new streets for Las Palmas would be built by developers and may be dedicated to the County as completed."

5. Add the following sentence to mitigation measure number 2 on page 54. "This program should take the form of an overall Las Palmas Ranch open space environmental management plan to be developed and be approved by the County before first development occurs.

TO: Monterey County Board of Supervisors

FROM: Toro Advisory Committee

RE: Draft Environmental Impact Report for the River Road Area of Development Concentration

DATE: 12-7-82

The Toro Advisory wishes to make the following comments regarding the River Road ADC EIR at this time.

Page 23: The section on "Police Protection" mentions, "At full development of the Toro planning area with a population of 10,000...".

This statement is incorrect in that their is no current figure for "full development" in the Toro planning area. In addition, the current population is 6,423 (from the Toro Planning Inventory). When the population of the unbuilt projects from Table 3.1 of the ADC EIR is added to the current population, 6,423 + 3,300, the projected population already equals 9,723. This figure does not include the Las Palmas project or the ADC project.

With the ADC project, minor subdivisions, and other already proposed major subdivisions, the Toro population would be in the vicinity of 17,000.

Page 25: States, "If the Existing Policy Plan is feasible in terms of marketability, it would have less fiscal impact on the county because of the relatively fixed costs per capita but higher revenues per capita."

This is an important statement in light of the county's current fiscal difficulties, and it points out that greater numbers of houses do not mean more money for the county.

2.4.2 Groundwater: This section fails to mention the 35,000 acre feet overdraft occurring anually in the Salinas Valley. The water for Las Palmas will come from the aquifers which are currently experiencing salt water intrusion. Any water taken from these aquifers for large scale development will contribute to the salt water intrusion problem.

2.7 Traffic: The 1980 traffic count for Highway 68 is 17,100 vehicles per day (vpd). The 1995 projected traffic volume for Highway 68 is approximately 32,000 vpd. (Figures from EIR)

According to the EIR, the ADC would contribute 12,300 vpd. 75% would go east on 68 and 25% would go west on 68. 25% of 12,300 = 3075 vpd going west on Highway 68.

The EIR incorrectly states that the ADC "would contribute approximately six percent to the total projected 1995 traffic

volume for this (west of River Road) segment of Highway 68". (page 70). The correct figure should be a contribution of 10% since 3075 vpd going west on Highway 68 from the ADC is approximately 10% of the 32,000 total 1995 vpd projected for Highway 68.

It would also seem pertinent to know where the other 11,825 vpd increase in traffic on Highway 68 projected from 1980-1995 is coming from. If this number is lowered, then the ADC obviously contributes a larger percentage to the increased traffic on Highway 68.

Thank you for consideration of our Committee's comments. We request that these comments be appended to the back of the EIR, rather than just placed in the file.

Sincerely,

Christine Gianascol

Christine Gianascol
Chairman

APPENDIX B

NOTICE OF PREPARATION AND NOP COMMENT LETTERS

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY - PLANNING

Carl Holm, AICP, Director of Planning

168 W. Alisal Street, 2nd Floor
Salinas, CA 93901
http://www.co.monterey.ca.us/rma

FILED
MAR 07 2017
STEPHEN L. VAGNINI
MONTEREY COUNTY CLERK
DEPUTY

NOTICE OF PREPARATION

To: Responsible Agencies/Interested Parties

From: Luke Connolly, Monterey County Resource Management Agency – Planning Department

Subject: Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the River View at Las Palmas Development Application Planning File Number: PLN150372

The County of Monterey will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the River View at Las Palmas Development (Planning File Number: PLN150372) proposed by River View at Las Palmas, LLC. The EIR will analyze the potentially significant environmental effects associated with development of the project and the changed circumstances since the preparation of the original Las Palmas Ranch Specific Plan Environmental Impact Report for the Las Palmas Ranch project. 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. Due to time limits mandated by state law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice (April 7th, 2017). The project description including potential environmental effects, and location, are contained in the attached materials. Please submit your response to the address shown above. We will need the name for a contact person in your agency.

The County will also hold a public scoping meeting to receive input. Your agency is welcome to send a representative to the scoping meeting. The date, time and location are to be determined.

Sincerely,

Luke Connolly
Resource Management Agency - Planning
(831) 755-5173

Attachments: Project Description
Vicinity Map

Cc: State Clearinghouse, Office of Planning and Research
1400 Tenth Street, Room 212
P.O. Box 3044
Sacramento, CA 95812-3044

PROJECT DESCRIPTION

The County of Monterey, Resource Management Agency will be preparing an Environmental Impact Report analyzing the potentially significant environmental effects associated with development of the project, described below, and the changed circumstances since the preparation of the original Las Palmas Ranch Specific Plan Environmental Impact Report for the Las Palmas Ranch project. The RMA has briefly identified the potential areas of impact, below, which require analysis (Aesthetics, Climate Change [not included in original EIR], Hydrology and Water Quality, Land Use and Planning, and Traffic). Potential impacts to other resource areas will require explanation as to why no impact is expected.

Project Name: River View at Las Palmas LLC
File No.: PLN150372
Location: The property is located at the end of Woodridge Court, south of River Road, Salinas (Assessor's Parcel Number 139-211-035-000), Las Palmas Ranch Subdivision (Corey House Unit 1 – Amended), Toro Area Plan. *(The owner has not yet obtained an address from RMA-Public Works)*

Project Description and Entitlements
The proposed project includes a Specific Plan Amendment, Use Permit, and Design Approval for the construction and operation of an approximately 90,000 square foot senior assisted living facility consisting of multiple structures and associated site improvements on an approximately 15.74 acre site. The facility would provide assisted living facilities and services primarily for seniors requiring varying levels of assistance.

Environmental Setting
The project site is an undeveloped 15.74-acre parcel located within the Toro Area Plan and the Las Palmas Ranch Specific Plan, approximately 0.5 miles southeast of the intersection of River Road and Highway 68. Surrounding land uses include residential development to east and southeast, undeveloped residentially-designated property to the west, resource conservation (open space) to the south, and cultivated farmland across River Road to the north. The parcel is within an area of Monterey County designated as urbanized. Coast live oak and a large number of eucalyptus trees are found on the perimeter of the property. The northern boundary of the parcel is adjacent to River Road, a proposed scenic route, and the entire parcel is within a Sensitive Viewshed area (Figure 16 of the 2010 Monterey County General Plan). The parcel is visible from Highway 68, a state-designated scenic highway.

General Plan and Zoning
The General Plan/Toro Area Plan land use designation for the site is Residential-Medium Density 2.61 units per acre; the zoning classification is Medium Density Residential, 2.61 units per acre, with a Design Control Overlay (MDR/2.61-D).

The current zoning and land use pattern was established in the Las Palmas Ranch Specific Plan and incorporated into the 1986 Toro Area Plan and subsequently in the 2010 Monterey County General Plan and Toro Area Plan.

PROJECT-SPECIFIC POTENTIAL IMPACTS

The following are the principal environmental issues to be addressed in the Environmental Impact Report (EIR).

Aesthetics
The project site is in a visually sensitive area adjacent to River Road, a proposed scenic route, and the entire parcel is within a Sensitive Viewshed area (Figure 16 of the 2010 Monterey County General Plan). The parcel is visible from Highway 68, a state-designated scenic highway. Development of the project would introduce the first man-made structures within the property and could result in potential impacts to visual resources, specifically to the public viewshed corridors along Highway 68 and River Road. The proposed structures, including thirteen small-scale units and two multi-story institutional buildings, and the resultant light emissions from these proposed structures, could be visible from the surrounding viewshed. The SEIR will, therefore, evaluate the potential impacts of the proposed project on visual resources based on the setting of the project, including impacts as viewed from public roads and nearby residences.

Climate Change / Greenhouse Gas Emissions
This resource category was not evaluated in the original Environmental Impact Report, which was certified for the Las Palmas Ranch project in 1982. There are presently no County-based thresholds for GHG emissions. The primary short-term source of criteria air pollutants and GHG emissions would result from the use of heavy construction equipment, including crew trucks and bulldozers. There will be a minor short-term increase in carbon sequestration due to tree removal; however this is expected to be eventually mitigated by tree replacement requirements. Additional long-term vehicle traffic generated by the proposed project may also be expected to produce localized air pollutant and GHG emissions. The SEIR shall include an evaluation of potential impacts to climate change based on the results of the project applicant's Trip Generation Study and Construction Management Plan, consultation with resource agencies, and the consultant's review of the technical reports.

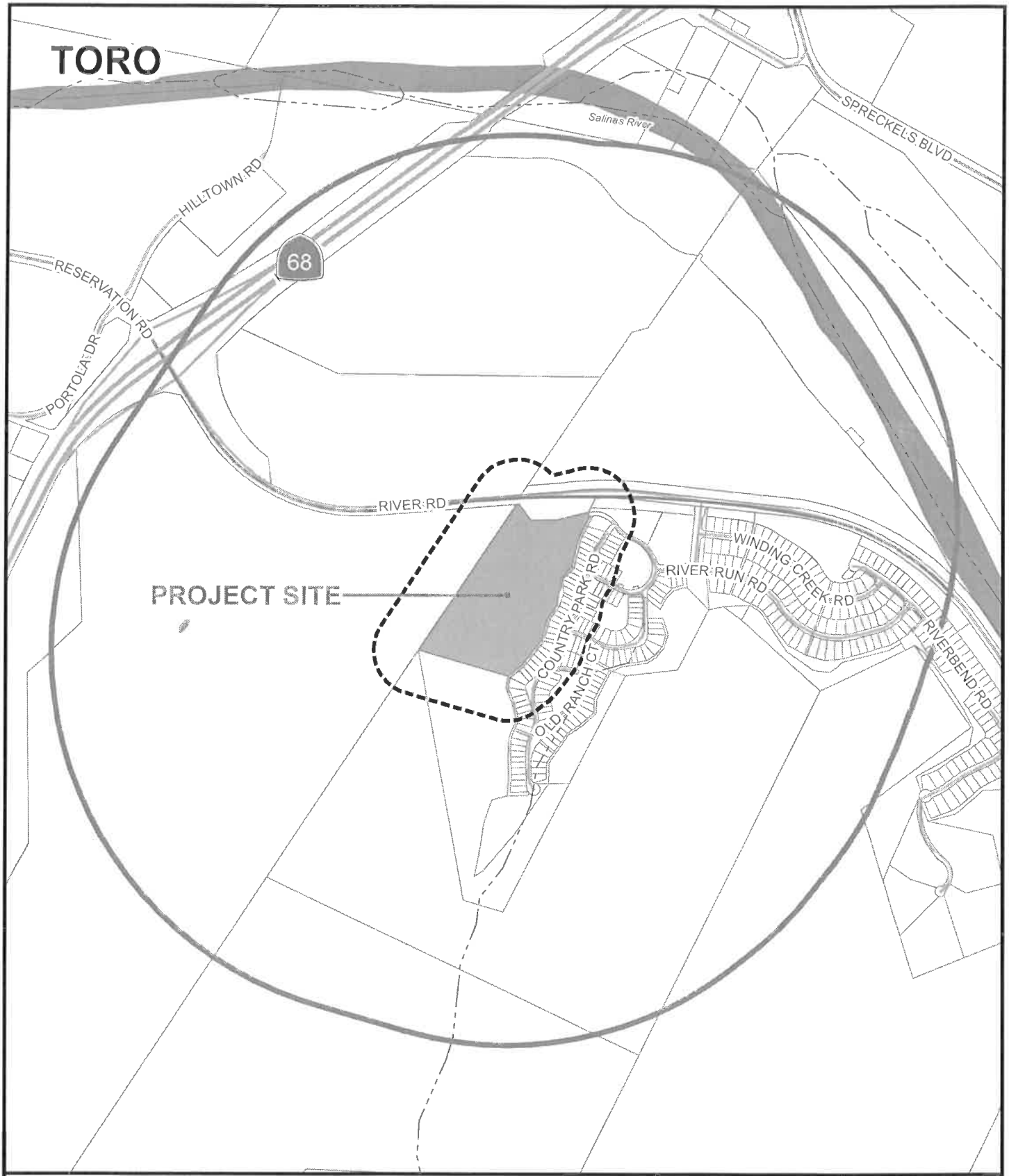
Hydrology/Water Quality
As proposed, the project includes approximately 60,000 cubic yards (cy) of cut and 34,500 cy of fill, as well as approximately 2,000 linear feet of retaining wall. The SEIR will analyze how the proposed grading, 90,000 square feet of new structures, and 99,500 square feet of impervious surface coverage (parking areas and driveways) would alter the existing drainage patterns and potential impacts to slope erosion.

Land Use and Planning
The project includes an amendment to the Las Palmas Ranch Specific Plan . The SEIR will evaluate the project relative to the Las Palmas Ranch Specific Plan and surrounding land uses. The Specific Plan, which is predominantly characterized by residential development, with a limited commercial and institutional component, was adopted in 1983 and is nearly built-out. The proposed assisted living facility was not a use addressed in the Las Palmas Ranch Specific Plan; however, given the site's Medium-Density designation, the property could have been

developed with approximately 40 single-family residences. The SEIR will include an assessment of the project's consistency with the Monterey County General Plan and Toro Area Plan policies. The Consistency Analysis shall be included as an Appendix in the SEIR.

Transportation and Traffic

The circumstances and assumptions regarding traffic have changed since adoption of the original environmental review document for the Las Palmas Ranch project, specifically with regard to assumptions about Highway 68 expansion. Evaluation of the project in relation to these changed circumstances will be a key component of the SEIR. The project would generate additional traffic on the surrounding access roads and highways. The SEIR will evaluate the potential impacts of temporary construction traffic as well as permanent traffic increases from residents, caregivers, and guests. The project will be expected to be consistent with the Goals of the Transportation Element (Section 2.0) as designated within the 2010 Monterey County General Plan. The SEIR will include an evaluation of potential traffic impacts based on the results of the project applicant's Trip Generation Study, consultation with resource agencies and the consultant's review of technical reports.



APPLICANT: RIVER VIEW AT LAS PALMAS LLC

APN: 139-211-035-000 **FILE #** PLN150372

300' Limit | 2500' Limit | Project Site | Water

N

0 1,000
Feet

MONTEREY COUNTY CALIFORNIA 1850

PLANNER: CONNOLLY

PROJECT ASSESSMENT REPORT

Of

THE CONSTRUCTION PROPOSAL

For

A Licensed Residential Care Facility for the Elderly on Parcel "Q"
adjacent to the Las Palmas I subdivision and called Riverview at Las Palmas (RVLP)

Prepared by

Owners Subcommittee of LAS PALMAS I subdivision

BALCH, GOBETS, IPONG, MERCURIO, RATLIFF, SUTLIFF

FOR

Presentation to the Homeowners Association of
Las Palmas I, Salinas 93908
CALIFORNIA

March 23, 2017

CONTENTS

INTRODUCTION

A proposal to establish a commercial Residential Care Facility for the Elderly using a parcel of property which is part of the original Las Palmas development was brought to the attention of the existing home owners during LUAC in October 2015. The Monterey County Planning file for the project is PLN #150372.

The 15.67 acre property is owned by "Riverview at Las Palmas LLC." This property was offered for sale during the 2015 and 2016 period with an indication that a permit to proceed would be available by the fall of 2016.

The Property, known as "Parcel Q," is immediately adjacent to Phase I of the Las Palmas development and presently only accessible through this existing subdivision established in the 1990"s and consisting of some 340 residences.

Once Las Palmas I homeowners became aware of the project at initial public meetings, access-related issues were immediately raised. Homeowners strongly objected to any project related traffic across our streets and through our neighborhoods and requested the developer plan for a separate access.

On advice from the Home Owners Association Board of Las Palmas Phase I a subcommittee of homeowners organized t look into the details and ramifications of the proposed development. In the course of this work County officials and agencies were consulted and California Highway Patrol and Fire officials contacted.

SUMMARY

The proposed facility, provisionally named Riverview at Las Palmas (RVLP), is currently (3/2017) in the early stages of review at Monterey County Planning under PLN 150372. Its intended site (15.67 acres, zoned Medium Density Residential, 2.61 UA) is immediately adjacent to and overlooks a mature residential community (Las Palmas I, ~340 homes).

RVLP has a projected capacity of 144 beds and staff of 92 employees. Its projected operation is 24/7. The property owner/developer ("Riverview at Las Palmas LLC") plans to use an easement for access and egress across LP1 private roads to this sizeable commercial project.

This report analyses 13 aspects of the Project proposal. Seven of these areas of concern are contained in the Project Description published by Lombardo and Associates in May 2016, and six additional aspects we raise here for consideration.

Section 1 reviews the project proposal as set out in the various presentations by the developer and the May 2016 Project outline paper published by Lombardo and Associates of Salinas, CA on behalf of the developer.

Section 2 outlines the details of the proposed project which concern the present homeowners as contrasted by claims made by the developer.

CONCLUSIONS

RVLP, as presently described in PLN150372, should NOT be approved as it will cause serious adverse impact on traffic, security, and quality of life in the LP1 community; it violates zoning restrictions; it is not in conformance with the Las Palmas Specific Plan (6); and it raises a variety of additional detrimental environmental considerations.

Its scale and scope will bring unwarranted risk and disruption to the adjacent peaceful ~340 home residential gated community of Las Palmas 1.

Why should the Parcel Q property owner maximize the value of his property at the cost of lowering the value of Las Palmas homeowners?

The RVLP proposed development is the Wrong Project in the Wrong Location.
However, in the Salinas area there are developing areas closer to medical and general service facilities more suited to this sort of commercial medical support and treatment business.

RECOMMENDATIONS

The original development proposal for the Las Palmas sub-divisions of the 1980's should be reviewed. The developers proposals for this parcel of land (Parcel "Q") was for a handful of high end homes on this "View Property." This option should be seriously considered.

SECTION 1 THE PROPOSED PROJECT DESCRIPTION

This section is sourced verbatim from the document outlining the project published by Lombardo and Associates in May 2016. Also consulted was the Internet advertisement for RVLP.

Homeowner commentary is offered in Section 2.

1.1 Area Map

Total site coverage - 190,000 SF (27.6%)
Casitas - 41,341 SF (6%) (37,700?!)
Assisted Living – 27,052 SF (4%)
Memory Care – 21,613 SF (3%)
Roads, driveways, parking – 99,523 SF (14.6%)

1.2 Project Description

River View at Las Palmas (RVLP) is an Assisted Living Senior Community designed to provide a range of assisted care to seniors over the age of 55 and to persons with diminishing mental capacity due to Alzheimer's, dementia, or similar causes. RVLP would be licensed by the State of California as a Residential Care Facility for the Elderly (RCFE).

The community is designed for residents who do not require 24-hour skilled nursing care, but are frail and require personal assistance with activities of daily living such as dressing, bathing, grooming, and medication management. This setting allows residents who are experiencing difficulty with maintaining totally independent lifestyles to move into smaller home like suites where they can receive daily personal assistance as needed.

The RVLP community is comprised of 3 levels of residence, each with their own level of assistance:

- **Casitas**: 13 structures comprising 26 units, 37,700 SF. (41,341?!)
- **Assisted Living:** RVLP's assisted living facility is a two level structure approximately 28' in height and will cover about 27,000 SF. The AL facility includes 40 living units ranging from 360 to 587 SF and a total of 52 beds.
- **Memory Care** (a three-level structure approximately 30' in height and will cover about 21,600 SF. The MC facility includes 39 living units ranging from 313 to 453 SF and a total of 48 beds.
- RVLP expects to employ about 92 persons when operating at maximum capacity. This will include managers and supervisors, trained care givers, chefs and facility maintenance personnel
- Staff coverage is 24/7
- Shifts will be staggered to avoid peak hour trips on Highway 68

Most of the eucalyptus trees on site, approximately 80 trees, will be removed and will be replaced with a significant amount of landscaping designed to both enhance residents living environment and to screen views of the project from neighboring properties and distant views from Highway 68. A grove of eucalyptus at the north side of the Memory Care facility will remain to provide significant screening of that portion of the project from Highway 68.The project includes an internal loop road of approximately 2,400 feet in length. Development of the project will require approximately 60, 000 CY of cut, most of which will be compacted and used on site, and 34, 500 CY of fill

SECTION 2 PROJECT ANALYSIS and CONCERNS

This section reviews the Project Proposal section by section, clarifying the effects of the various parts of the proposed business development and its operations.

2.1 Project Site

The site also known as Parcel "Q" is a 15.67 acre view property located at the north end of the Las Palmas Phase I property.

2.1.1 Homeowners Assessment

- Unclear that Parcel Q has right to access LP1 roads without restrictions. The easement only claims a right to ingress and egress over Woodbridge Court.
- "Parcel Q" is an undeveloped portion of land within the Las Palmas I subdivision. This parcel was originally retained by the initial developer of the subdivision (Las Palmas Ranch Development Company, Inc.) and has been sold several times over the past 15 years.
- Parcel Q is currently zoned MDR/2.61-D & O-D: Medium Density Residential, 2.61 units/acre with Design Control, and Open Space with Design Control.
- We hold that commercial use of these roads is inconsistent with the MDR zoning designation

2.1.2 Developer's Claims

- Las Palmas Road, River Run and Woodridge Court are private roads maintained by the Las Palmas Ranch HOA. Developer alleges that those roads were dedicated as part of Las Palmas Subdivision #1 with no restrictions as to their use.
- Developer alleges that Parcel Q has clear rights to the use of the private roads for the proposed RVLP project

View from Winding Creek towards RVLP proposed entrance

View from proposed RVLP onto LP1

2.2 Land Use and Planning

2.2.1 Homeowners Assessment

- The site is designated as medium density residential under the Monterey County Land Use Plan: Toro Area
- as Palmas Ranch (I & II combined) has been built out to 1028 units against the stated maximum of 1031, leaving 3 units (per LPSP)
- We hold that the RVLP project is not subordinate to the residential use and character of the area.
- Necessary services do not exist nearby, nor are we aware of their planned development.
- Developer is asking to amend the LPSP to “shoe horn” this clearly non-conforming development into a neighborhood that never envisioned such commercial purposes. As stated is this not a clear admission that this RLVP is non-conforming?
- Multiple aspects of the Monterey County General Plan would be violated by this project, including (but not limited to):

    - L.U.-1.4: Growth areas shall be designated only where an adequate level of services and facilities such as water, sewerage, fire and police

protection, transportation, and schools exists or can be assured concurrent with growth and development

- L.U.-1.5: Land uses shall be designated to achieve compatibility with adjacent uses.
- L.U.-1.11: Development proposals shall be consistent with the General Plan Land Use Map designation of the subject property and the policies of this plan
- LU-2.19 The County shall refer amendments to the General Plan and zoning changes that would result in the creation of new residential, industrial, or commercial areas to the nearest cities for review and comment.
- L.U.-2.23: Medium Density Residential (MDR): Medium Density Residential areas are appropriate for a range of residential uses (1-5 units/acre) and housing types, recreational, public and quasi public, and other uses that are incidental and subordinate to the residential use and character of the area. The extent of use of land for this designation shall be limited to building coverage of 35% of the subject property.
- OS-1.2: Development in designated visually sensitive areas shall be subordinate to the natural features of the area.
- OS-1.3: To preserve the County's scenic qualities, ridgeline development shall not be allowed.
- T-1.6: Existing legal lots of record located in the critical viewshed may transfer density from the acreage within the critical viewshed to other contiguous portions of land under the same ownership, provided the resulting development meets all other Toro Area and General Plan policies.
- T-3.1: Within areas designated as "visually sensitive" on the Toro Scenic Highway Corridors and Visual Sensitivity Map (Figure 16), landscaping or new development may be permitted if the development is located and designed (building design, exterior lighting, and siting) in such a manner that will enhance the scenic value of the area.

2.2.2 Developers' Claims

- The property was zoned "MDR/2.61-D" (Medium Density Residential, 2.61 units per acre; Design Control). That zoning remains in place today. At a density of 2.61 units per acre up to 40 dwelling could be approved.

- The MCGP 2010 describes the Medium Density Residential designation as being "…appropriate for a range of residential uses (1-5 units/acre) and housing types, recreational, public and quasi-public, and other uses that are incidental and subordinate to the residential use and character of the area, building coverage[is limited to] 35% of the subject property (MCGP policy LU-2.33 a.).

- The MDR zoning district is intended to "…provide a district to accommodate Medium Density Residential uses in those areas of the County of Monterey where adequate public services and facilities exist or may be developed to support medium density development.

- "RVLP is not a residential use under the County codes or the LPRSP in that RVLP does not provide dwelling units that will operate or function as independent residential units". "For clarity and surety in regard to the future use and development of the RVLP property an amendment to the LPRSP is proposed to read:

  Assisted living facilities are allowable uses in the MDR district in that they are similar to other uses such as rest homes and public quasi-public uses currently allowed in the district. Assisted living facilities are not considered residential units and are not subject to the current 1,033 (LPSP states 1031.RG) residential limitation of the LPRSP. An Assisted living facility is not considered a residential development because it does not operate or function as independent residential units. An assisted living facility may be considered and approved on Parcel Q of Las Palmas Ranch Unit #1 consistent with the anticipated impacts of the 40 dwelling units originally planned for this site."

2.3 Access & Traffic

2.3.1 Homeowners Assessment

- When Parcel Q was created, it was granted the same access rights over the Common Area as every other lot in the subdivision. These rights have been incorporated into Parcel Q's property description attached to various Grant Deeds:

  > A non-exclusive easement for ingress, egress, road and utilities over that portion of River Run Road and Woodridge Court being a portion of Common Area Parcel C and Las Palmas Road being Common Area Parcel A as shown and designated on that Map entitled Amended Map of Las Palmas Ranch Corey House Area / Unit 1 Tract 1086A filed June 15, 1989, in Volume 16 of Cities and Towns at Page 70 in the Office of the County Recorder of Monterey County, California. Said easement shall be appurtenant to Parcel Q as shown and designated on the above referred to Map of Tract 1086A

- In this case, the owners of Parcel Q have an easement for residential access to their parcel. There is nothing in the grant of easement, or in the circumstances surrounding it, which would indicate an intention to create access rights for a substantial commercial enterprise

- The scope of an easement is determined "by the terms of the grant, or the nature of the enjoyment by which it was acquired." Cal. Civil Code § 806. Thus, the easement holder's use is "limited by the requirement that it be reasonably necessary and consistent with the purposes for which the easement was granted." *Union Pacific Railroad Co. v. Santa Fe Pacific Pipelines,Inc.* (2014) 231 Cal.App.4th 134, 164. Finally, "once fixed, the scope of the easement cannot be changed without the consent of the servient owner." *Krieger v. Pacific Gas & Electric Co*. (1981) 119 Cal.App.3d 137, 144

    - Accordingly, the access easement is for RESIDENTIAL use only

- When the project was first presented during 2015 meetings by the developer (Mr. Shingu) there was extended discussion on site access. The developer stated he had an easement through our residential neighborhood but also indicated he would explore alternate access by way of River Road NOT across Las Palmas 1 streets. However, after meeting with the County he reported that such alternate access would not be feasible.

- There was a subsequent attempt to consider a separate road across LP1 property but built to accommodate RVLP traffic separately from ordinary residential traffic. This met with strong homeowner objection. This option was rejected by the Las Palmas I HOA in that it did not address the central issues of traffic congestion and security. In September 2016, at the second LUAC meeting on this project, Mr. Shingu then insisted on using the easement.

- Access and egress to RVLP will dramatically change Woodridge Court, River Run Road and Las Palmas Road from their present lightly travelled and placid nature to a busy thoroughfare. These streets are used by residents to walk, jog, exercise their dogs, as practice venue for children's soccer games, etc. etc. Routing traffic as proposed by the developer will put an end to this valued use. The entrance into Las Palmas Road from River Road will be heavily congested. Entering traffic, waiting for clearance from the guard shack, will back up into the deceleration lane on River Road and pose serious collision hazards.

2.3.1.1 <u>Dangerous Intersection</u>

This resulting congestion will cause residents to avoid the River Road at Las Palmas Road intersection and use the unsignalized southern electronic gate at Riverview Court and River Road, incurring ***<u>more</u>*** risk of a traffic

accident. Under present conditions that intersection is lightly used and the 2011 HOA commissioned traffic study found such light use consistent with safe practice. The proposed RVLP project would immediately invalidate this conclusion.

2.3.1.2 High Accident Rate

Accidents at the Las Palmas and River Road intersection are unfortunately routine. The latest in early 2017 was between a passing 18 wheeler and a resident worker leaving correctly on a green light. Other accidents have resulted in tragic fatalities. CHP accident statistics report referenced.

2.3.1.3 Obsolete and Incomplete Traffic Study

With 144 beds this facility will experience substantial traffic from family and visitors, suppliers, service providers, utility companies, delivery services, contractors, and emergency vehicles. Casitas residents will have their own vehicles. Shuttles will not provide 100% of employee transportation, many will have their own vehicles and use them as they wish.

The cited traffic study is from 1982(!!). County Traffic Engineering determined on 1/12/2016 that significant information gaps need to be closed before the Traffic studies could be considered "Complete". No NEW information since 1/12/2016 has surfaced to address these information gaps, hence this section is still "Incomplete".

Not included in County Traffic Engineering's letter is any mention of the Riverview Court/River Road intersection. This is a critically important component of traffic analysis that must be included.

2.3.1.4 Emergency Evacuation – Unsafe

The present access to Las Palmas I (one single lane in and out with traffic light control to River Road and the second single lane in and out with no traffic control) was designed for the existing residential population of the development.

Adding the residents, patients, staff, contractors and support personnel to an evacuation situation risks the safety of the existing Las Palmas Residents, and also puts their evacuation capabilities at risk down a steep narrow access road , presently little more than a cart track.
Further, if and when all residents are trying to evacuate, emergency vehicles and crews will be attempting to enter to deal with the natural or man-made disaster (e.g. Sobranes type fire or earthquake etc) causing the evacuation. This poses extreme hazards……..

2.3.2 Developers Claims

- "RVLP will not have a significant effect on traffic in the area."
- "The primary traffic generation will come from employees."
- "The overall traffic impacts of the Las Palmas development were analyzed and addressed through the LPRSP and its EIR. To assess the potential impacts of the RVLP project Hatch Mott McDonald reviewed the LPRSP EIR, LPRSP, previous project conditions of approval, improvements that were constructed and did traffic counts from all of the LPR entrance points."

2.4 **Aesthetics**

2.4.1 Homeowners Assessment

The developer has considered only minimal impacts of the proposed development.

2.4.1.1 Visual Pollution:

Proposed site for RVLP is NOT a "knoll." It is at considerable elevation and will occupy a commanding view of the area. This commanding view from above implies an equally visible presence from below. The Salinas River crossing will shortly contain new bicycle and walking paths which will greatly increase foot and bicycle traffic. Residents and tourists will see the three story and other buildings of the proposed development. At dusk or evening it will be even more obvious when lit up.

2.4.1.2 Noise Pollution: (Not considered by Developer)

RVLP will be elevated (est. 100'-200') in relation to the adjacent LP1 community. Access to the site from Woodridge Court will be a new road at steep ascent (on the order of near 15% slope), which will in turn require downshifting in vehicles with attendant noise that will clearly echo into the adjacent residences of LP1. These residences were purchased in part for their quiet seclusion and semi-rural setting. Not to listen to the UPS truck grinding up the hill!

2.4.1.3 Proposed Tree Cutting poses Negative Impact

Cutting down 80 mature Eucalyptus trees imposes a dramatic negative impact on LP1 community. It will also adversely impact the microclimate in that location. These trees help shield the LP1 from strong seasonal

afternoon winds and help deaden the road noise from adjacent sections of Highway 68 and River Road.

2.4.1.4 Air Pollution: (Not considered by Developer)
RVLP is a large care facility that that provides meals to its occupants. Institutional cooking odors will be emitted and carried by prevailing winds into the adjacent LPI community.

2.4.2 Developer's Claims

- "RVLP is located on a knoll above River Road. It is an area that is primarily identified as being "visually sensitive" in the Toro Area Plan. The project site has limited visibility from southbound River Road due to road alignment, topography and native vegetation. Portions of the upper portion and roofs of some of the buildings will be visible from Highway 68 from the Salinas River crossing to the River Road exit. The project is only visible from northbound River Road at and near the intersection with Las Palmas Road. The project site is approximately ½ to ¾ mile from Highway 68 for a distance of about 3,000 feet. At the normal driving speeds on that portion of Highway 68 the project site is visible for about 30-40 seconds at car speeds."

View from RVLP towards Highway 68 & River Road intersection

View from RVLP down onto LP1

View from RVLP towards Spreckels Road

View of flagging for RVLP from Guard Shack
at River Road / Las Palmas Road intersection

2.5 **Biology**

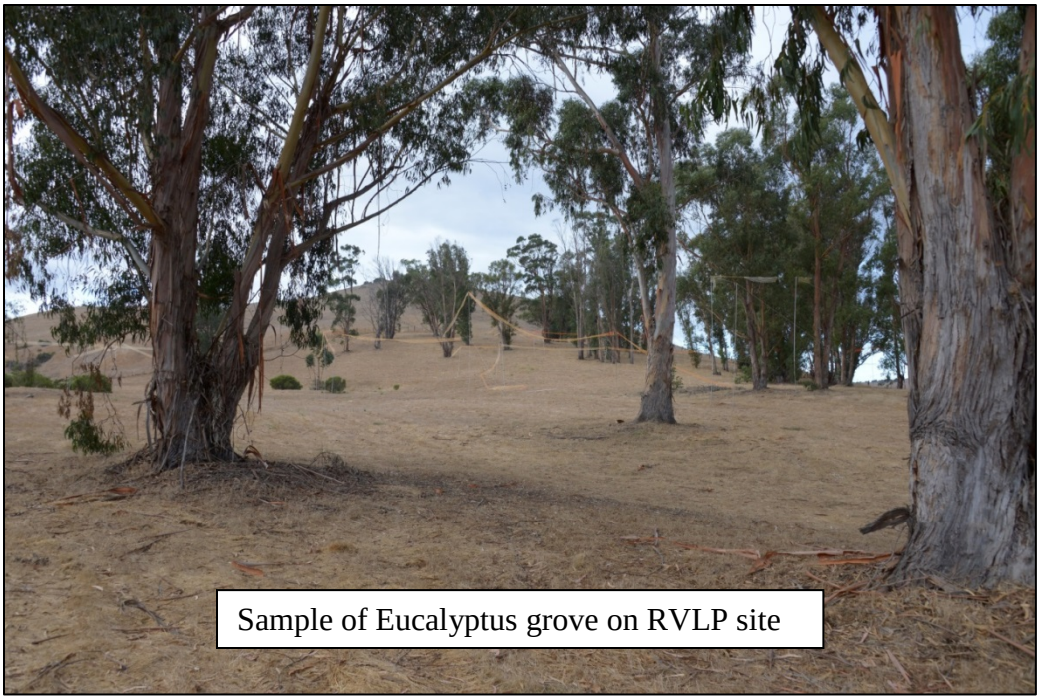
2.5.1 Homeowners Assessment

The present Eucalyptus grove is home to native owls. They hunt field rodents. One of the many charms of Las Palmas I is their night time hooting. Several of the adjacent Eucalyptus trees have already been cut down by the developer. The nests of those owls dwelling in these trees were demolished. The hooting stopped.

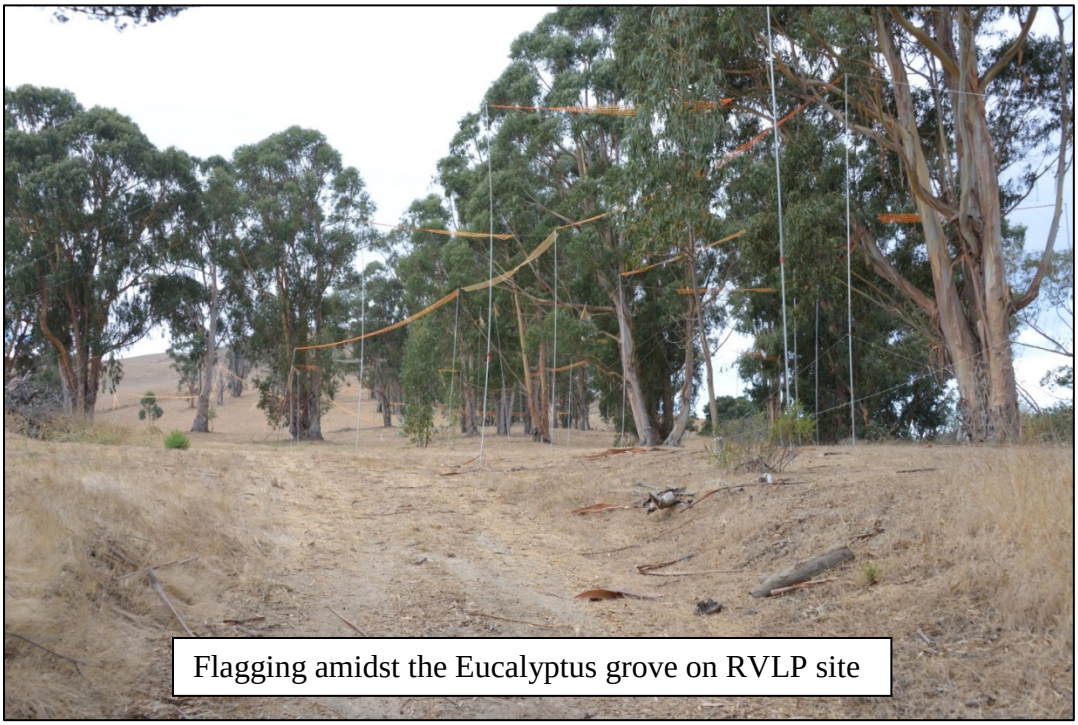
No further input at present. Study of the Ferrini EIR(s) remains to be done for comparison

2.5.2 Developer's Claims

"During the development phases of the project design the site was surveyed twice for sensitive plant and animal species. Copies of the reports are included with the project application materials. Neither report identified any sensitive plant or animal species on the property or on the properties immediately adjoining the project site. Need to see these reports."



Sample of Eucalyptus grove on RVLP site



Flagging amidst the Eucalyptus grove on RVLP site

2.6 **Water and Wastewater**

2.6.1 Homeowners Assessment

- We seriously question the tacit assumption that given California drought conditions Zone 2C can continue to satisfy new demand for water.

- If the eventual construction schedule pushes into the period governed by the next Water Study, this may no longer hold. Water district officials have stated that Zone 2c is already in an overdraft situation.

- Note: This "can and will serve " letter is valid for two years and expires in Aug. of 2017.

2.6.2 Developer's Claims

"The RVLP project domestic water use is calculated at 11.376 AFY. Water service will be provided by the California Water Service. CWS is the water provider for Las Palmas Ranch and has provided a "can and will serve" letter. The area and project site are part of the Indian Springs/Salinas Hills/Buena Vista service area. Water for the service area is taken from a well field in Zone 2C, which by policy of the Board of Supervisors is sufficient proof of a long term water supply."

2.7 **Soils & Geology**

2.7.1 Homeowners Assessment

RLVP would be on an elevated "view" property with steep slopes backing directly onto existing residences which could become unstable with such a large development in this era of climate change with strong winter storms. **Slope stability has already been compromised** with summer fire prevention requiring close cropping of vegetation and removal of some bush and trees all of which are required to maintain slope stability. Nature's bulldozer abhors slopes above 45 degrees some of which exist to homes adjacent the proposed development.

The last 100 yards of the access road to the elevated part of Parcel Q is narrow, in a cut; at a steep angle and with a sharp drop-off overlooking a steep grade. Below this grade there are adjacent homes and the fire access road which services all the homes on Country Park Road. Coping with two way traffic and heavy construction vehicles re-working this higher part of the road would compromise the existing adjacent homes and fire access.

2.7.2 Developer's Claims

"A geologic hazards and soil suitability study was done by Landset Engineering for the RVLP project. (Dated?) RG The report, which is included in the project application materials, concludes that the site is suitable for the project and makes a series of recommendations for the final engineering and design of the construction plans. Those recommendations will be incorporated into the final plans. Additionally the report identified areas around the perimeter of the property which are not suitable for structural development. All of the RVLP project structures are grouped to the interior of the property and are located outside of those areas that Landset identified as unsuitable."

Steep portion of the access road into RVLP site

2.8 **Neighborhood Fit**

2.8.1 Homeowners Assessment

2.8.1.1 Survey Rejects RVLP

- One of the first actions of the Ad Hoc owners committee was to conduct a statistically random survey of Las Palmas I property owners and renters, using information given by the parcel "Q" property owners at the 2015 meetings and presentation to the Home owners association Board.

- Of the 329 homes in LP1 165 residents were surveyed.

- The results indicated that 93% of residents do not support the project as presently known due to the perceived negative impacts of the Care Facility project on its community. Traffic and Security dominated the concerns.

2.8.1.2 LUAC Finds RVLP Inconsistent

At the LUAC meeting in September 2016, its official and unanimous recommendation was to change the project to ensure conformance to the Las Palmas Specific Plan (LPSP), which in essence would limit the scope of the project to 3 residences.

"Change project (RVLP) to adhere to the Las Palmas Specific Plan which, according to County records of housing units already built, will allow three single family dwellings to complete the build-out of Las Palmas. As proposed, this is a commercial project, and is inconsistent with the residential neighborhood."

2.8.2 No mention of this made by the developer

2.9 **Storm Water Runoff**

2.9.1 Homeowners Assessment

2.9.1.1 Existing Flooding Risk Considerable

The RVLP site is projected to be on a pristine natural mesa atop a hill rising above LP1 development. During strong rains, adjacent LPI lots currently experience strong runoff with local erosion and flooding.

2.9.1.2 RVLP Construction and Operation Pose Greater Hazard

RVLP site coverage is ~ 190,000 SF (27.6%) and will be a combination of structures, roads and parking areas. This surface area will not be able to absorb any moisture as the uncovered the soils do now. Given that, what will be the methods and the capacity of removing water runoff without undue impact on the lower lying LP1 community? Cutting down 80 Eucalyptus trees will certainly exacerbate that situation.

2.9.2 No mention of this made by the developer

Subsequent Serious Flooding Two Weeks Later During Feb. Storm. Water encroached to within one inch of two homes.

2.10 **Fire Safety**

2.10.1 Homeowners Assessment

2.10.1.1 Existing Situation Already Hazardous

California has just exited from an official state of drough, which had existed for some time

The Soberanes fire (summer 2016) destroyed 50 buildings and 132,127 acres, not far from Las Palmas I. It was THE most expensive fire in US history to suppress at $236,000,000

The inclined slopes bordering LP1 and RVLP currently already pose **extreme fire danger** most of the year around due to very dry vegetation being present on those slopes.

LPI experiences very strong afternoon winds for months at a time. These winds blow down fences and garbage cans in the streets.

Imagine a fire along the River Road corridor, whipped along by these winds

Imagine the RVLP elderly and infirm occupants and employees scrambling to get off the hill along with the residents occupying 340+ homes in LP1.

2.10.1.2 RVLP Adds Hazard

Development of RVLP during construction would pose unwarranted risk of fire due to accidental generation of sparks by equipment or careless smoking operators. Routine RLVP operations will pose continuing accidental risks of starting fires.

View from Country Park Road onto RVLP project site. Summer 2016

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2.10.2 No mention of this made by the developer

2.11 **Risk Management**

2.11.1 Homeowners Assessment

2.11.1.1 More Risk of Collision

Locating RVLP as proposed will add risk to both the LP1 community and RVLP itself. As LP1 & LP2 are nearly 100% built out per LPSP (1028 vs.1031 units max.), its roads and infrastructure are at their limits. The proposed RVLP facility was never factored into traffic flow considerations for LP1.

Inserting RVLP into this capacity-constrained setting will add unwarranted risk to both entities in terms of congestion in **non-emergency** situations.

Traffic flow at the guard shack would slow significantly, and queuing would back entering vehicles into the River Road deceleration lane and congest the exit lanes. This lane can accommodate only a few vehicles.

Between 1989, when LPI started, and January 2017 there have been 24 accidents at or near the River Road LPI entrances . In 2009 there was a fatality; one of our homeowners lost their son to a drunk driver who ran the light (CHP Reports by Burch & Tillman – (9), (10))

This big rig ran the light at River & Las Palmas Road intersection. January 2017

Passenger car totaled by big rig, 2 occupants hospitalized. January 2017


Las Palmas Road and River Road
20 Collisions 1998 - 2017
©2018 Google
Google Earth

2.11.1.2 Traffic Choke Points Created

Further, **emergency evacuation situations** like fire and/or earthquake (both very real events in this region) within present road constraints will result in unacceptable choke points for both emergency vehicle and resident access and egress, and seriously impact safety for both RVLP and LP1 residents.

2.11.2 No mention of this made by the developer

2.12 **Security**

2.12.1 Homeowners Assessment

2.12.1.1 Security Measures Taken by Homeowners

LPI HOA (340+ homes) has put a great deal of effort and money forth to protect personal property as vehicle and property break-ins (even in daylight) had become the norm:

- Bought out the part of the property zoned for businesses which is now a green belt open central recreation field, Corey Park.
- Banned garage sales.
- Established a guarded, gated community in 2008/9. This system works well currently.

2.12.1.2 Present Security Arrangements Overwhelmed

Projected RVLP employees and visitors would overwhelm present security arrangements. Additional security infrastructure (guards, guard house, decals) would be required.
A whole new group of people would enter LPI grounds, and once entered, would have access to the entire neighborhood. This would defeat the very measures LPI took to limit access by installing the gated and guarded community of homeowners.

View towards RVLP site from intersection of River & Las Palmas Roads

Guard shack near River and Las Palmas Road intersection

2.12.2 No mention of this made by the developer

2.13 **Economic Impact**

2.13.1 Homeowners Assessment

LPI safe, semi-rural and peaceful environmental setting commands value to the homeowners and prospective buyers. It constitutes an asset.

Establishing RVLP as envisioned will diminish this asset and consequently lower LPI Real Estate values.

Residents repeatedly stated during the survey that they did not support the Parcel Q property owner maximizing the value of his property at the cost of lowering the value of theirs.

2.13.2 No mention of this made by the developer

Residents strolling in Circle Park, one of the 4 park areas for residents

References:

(1)Project Description, Lombardo, Anthony, 2016, J. McCormack website : jnmcommercial.com

(2)Final EIR for the Las Palmas Ranch Specific Plan (EIR 81-111), Grunwald, Crawford & Associates, certified by Monterey County Board of Supervisors, December 7, 1982.

(3)Letter from Ryan Chapman (County Traffic Engineer) to Steve Mason (County Planner) Dated 1/12/2016

(4)Survey Results, Gobets, R., et.al. Presentation to LP1 HOA Board of Directors 5/'16

(5)TORO LUAC meeting minutes 10/26/'15 & 9/26'16

(6) Las Palmas Specific Plan. Adopted by the Monterey County Board of Supervisors September 20, 1983

(7) Traffic Report - Hexagon Transportation Consultants, 11/3/2011

(8) Title 21, section 21.64.010

(9) Report from Officer Burch (California Highway Patrol 960 E. Blanco Road), summarizing traffic accidents at LPI intersections.

(10) Report from Commander Tillman (California Highway Patrol 960 E. Blanco Road), summarizing traffic accidents at LPI intersections. This report to be analyzed.

ENVIRONMENTAL IMPACT REPORT (EIR) INFORMATION

For

SUBMISSION TO THE NOTICE OF PREPARATION (NOP) OF AN SEIR BY THE COUNTY OF MONTEREY

Regarding

THE RIVER VIEW AT LAS PALMAS LLC DEVELOPMENT APPLICATION PLANNING FILE NUMBER: PLN 150372

PREPARED BY
RESIDENT AND HOA BOARD MEMBER OF THE LAS PALMAS I SUBDIVISION OF SALINAS CA 93908

DAVID C. DALBY P. ENG, NSPE

APRIL 2 , 2017

CONTENTS

Introduction and Supplemental EIR?

This report is prepared by David C. Dalby an elected Board member of the Home Owners Association and 16 year resident of the Las Palmas I subdivision of Salinas, California 93908. The proposal of the "River View at Las Palmas LLC" is to occupy part of the Phase I parcel also known as Parcel "Q" (approx 15 acres). This was originally part of the whole Las Palmas Specific Plan of 1983 undertaken in two phases I and II.

SECTION 1 PROJECT ASSESMENTS to Date

1.1 Summary

This paper is a response the the Notice of Preparation (NOP) issued on March 7, 2017 by the Resource Management Agency - Planning of Monterey County. The paper follows and lists the CEQA question and question format guidelines as far as possible. All topics listed are considered to be capable of causing "Potentially significant Impact" on the environment and particularly in the residential neighborhood.
The effects on topics to be questioned in the EIR are as outlined in the NOP i.e. Aesthetics; Climate Change/Greenhouse Gas Emissions; Hydrology/Water Quality; Land Use and Planning and Transportation and Traffic.
Commentary on the effects of the proposed development are added complete with pictures where this emphasises the points made and effects expected.

1.2 Conclusions

Section 2 clearly outlines the severe negative effects of the proposed development on the residential population of Las Palmas I particularly those residing in the Parkside Area and not just over the construction period but also on a continuing basis.

a) The Historic Corey House, listed on the National Register, is adjacent to and completely overlooked by the development. It will be impacted by the 24x7 operation and 24x7 traffic as all traffic must pass round the property on journeys both to and from the Parcel Q development.

b) The steep slopes between the new Development and the existing residences of Las Palmas are demonstrated to be unstable in these days of Climate Change having caused mud slides and floods this year.

c) The resources for this proposed development including groundwater and grey water may only be available when those assigned to the commercial property owned by the Las Palmas owners and Las Palmas itself are taken and re-assigned. This is contrary to the home owners expectations and rights.

d) Planning for this development is argued to be deficient particlarly as the existing plan for Las Palmas I is almost complete as per the Las Palmas Special Plan of 1983 (approx)

and the proposed development is of a completely different nature, i.e. a large profitable commercial venture far away from any support or community facilities normally sought by such care homes. (this is said with the experience of our volunteers at local care homes). Further, it is an extremely large development for the site not only servicing patients needing assistance and/or treatment but also providing 26 ordinary family Casitas the residents of which may require neither support nor assistance.

e) This is a ridge-line development normally prohibited in tourism development areas and corridors. These designations include River Road and Highway # 68. The development visibility is impossible to hide and will impact other genuine Tourism developments and investments nearby.

f) Dangerous Access to River Road.
This already dangerous access (see statistics showing multiple River Road drivers running red lights) would also be overrun with the day to day increase in traffic to and from the new development and it will be impossible to cope with an evacuation due to fire, earthquake or flood. The patients would be in peril trying to leave down the narrow trail to the highway and the present residents would be in peril competing with all other residents to exit by the very limited exit lanes available.

In-escapable Summary of Conclusions:

This project is:

i) The Wrong project - demonstrably incompatible with the present 340 residential home owners needs, raising property and owners risks while reducing security and

ii) The Wrong location - with today's knowledge similar such homes are located not far from support services (e.g. Windsor Homes) and in areas capable of providing some useful community interaction (such locations are available in the Salinas area - e.g. Abbott Street area) and at

iii) The Wrong Time - for the proposed Parcel "Q"property climate change has raised the risks of Fire, Flood and other catastrophies to an alarming level - the steep, slide prone slopes of the elevated parcel offer unacceptable risks to any infirm residents and the established Las Palmas residents .

The Solution:

If necessary, construct the three remaining "high end homes" on parcel "Q" to complete the Las Palmas Development as per the original Las Palmas Special Plan.

SECTION 2 ENVIRONMENTAL EFFECTS ISSUES of the PROJECT

This section reviews the Project Proposal and identifies items of concern to be considered in the Environmental Impact Report for this project and expands on the effects of the various parts of the proposed business development and operations as presently known.

SEIR or Full EIR: Initially the paper questions the use of a Supplemental EIR rather than a full one on the basis that the original one was completed is the 1980's (toward the end of the last Century). If that old one is to be followed then the plan of the 1980's should also be followed i.e. for a small number of residential homes on Parcel Q. (See LUAC report below).

2.1 Collaboration and Meetings to Date

The property owners of Phase I of the Las Palmas Development have worked hard to collaborate with the developer and have met several times in open sessions with the developer. One of the first and consistent request by residents was for the developer to access via a separate road to the Parcel "Q" lot thus reducing the operating conflicts otherwise surfacing. These conflicts include a 24x7 operations with nearly 100 staff serving some 140 patients some even with emergency health requirements.
The developer has been unwilling or unable to arrange for a road access separate to Las Palmas Phase I.

Toro Park Land Use Advisory Committee (LUAC)
A group of owners and Board members of Las Palmas Phase I, attended a fall meeting of LUAC to outline concerns regarding the project . The LUAC Board passed a motion recommending that the project not be approved as outlined and the development of Parcel "Q" should revert to the original Las Palmas development plan of the 1980's as follows. Please note, the proposal outlined by the original Developer, Mr Fletcher at a public meeting as late as 2009 was for up to 5 high end homes on this Parcel Q view property.

2.2 Aesthetics - the New Developer's Plan

CEQA Guidelines The following are considered to have a **"Potentially Significant Impact"** on the environment.
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 night time views in the area?

Plus Noise and occupancy Risks (include Odours too)

The new developer plans to construct several buildings on the parcel two of which are major three story buildings with elevators, totalling some 82,000 sq ft giving a roofline of 30 - 40 feet above ground level, which will give high visibility to many surrounding homes, businesses, travellers and passers-by.

2.2.1 SIGHT ISSUES

Many **existing homes** can clearly see parts of the proposed new development, especially in the "Parkside" area of our present development. However, some homes in the River Run section also have that capability. Overall, one estimate we have by residents observations and mapping, some 150 homes have visibility either from the front or back of the home.

Outside of the Las Palmas I subdivision, **travellers (on foot, bicycle and car)** both on River Road and also from larger sections of Highway 68 will have prolonged and commanding views of the development both in the daylight and from the lights in the evening. The bridge over the Salinas river and it's approaches for several hundred yards will give clear views of the development. This especially affects cyclists and walkers who are being encouraged to use the **new elevated 'Foot/Cycle' path over the Salinas River. See photos below.**

This is clearly ridge-line development inapproporiate for this established tourism sensitive but developing area.

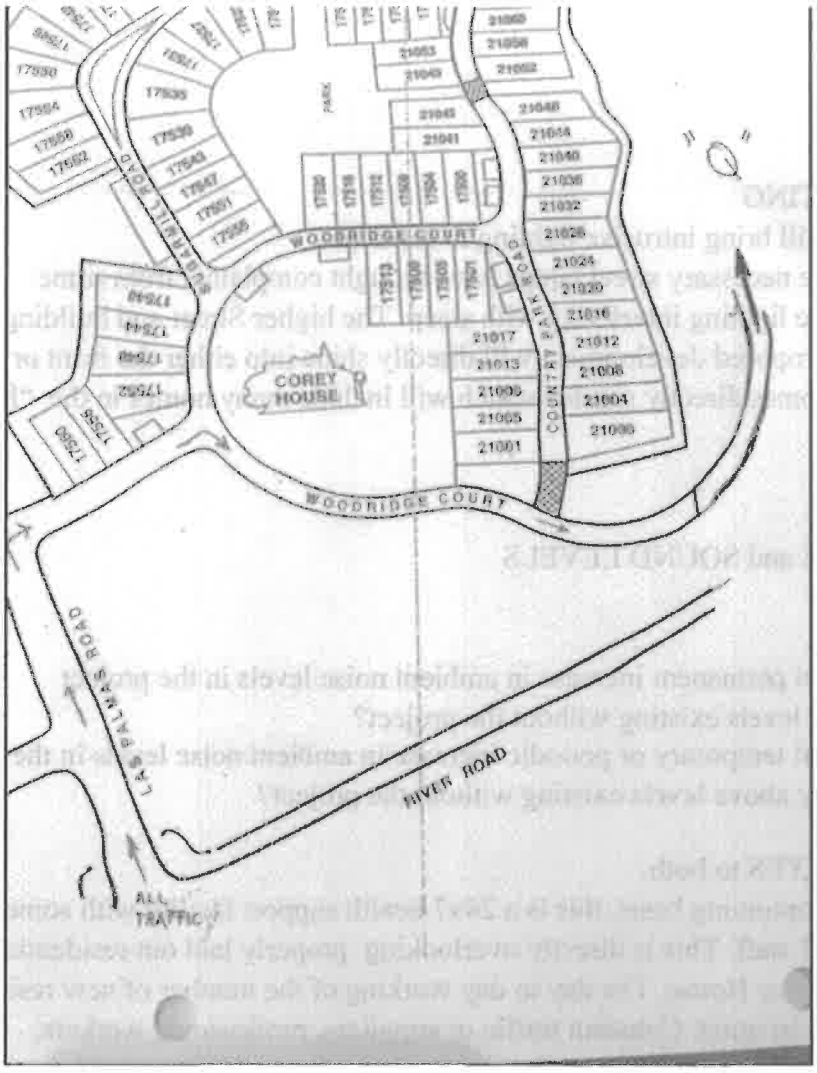
Photo below: The proposed project site is the raised level area at the end of the street, the parking lot and buildings are constructed above the steep grassy slopes on the ridgeline.

Historic Building - Corey House (Now Chateau Coralini - a Boutique Hotel) (CEQA Question b).

This 2 acre parcel is zoned LC-HR - Limited Commercial-Historic Resource.

Note: the ridgeline at the building flags.

HISTORIC BUILDING - Corey House a 19th Century farm house and the last remaining part of Hiram Corey's agrcultural 645 acre Estate.
It is now now a Boutique Hotel and is overlooked by the proposed development about 150 yards away.
Further, all traffic to and from the proposed new development must use the road shown above then turn right at the stop sign and pass the Hotel front door and round Corey house in order to access the trail to the property above on the raised 15 acre development bench.



ALL TRAFFIC TO AND FROM THE PARCEL Q DEVELOPMENT passes the front of and around Historic COREY HOUSE 24x7.

This Historic home and parcel will be heavily impacted by the development of Parcel "Q" as proposed. The construction period will provide a great deal of noise, dust and vehicular traffic. After construction the traffic side of it will again be very intrusive: i.e 24x7 operation - staff, visitors, patients all moving, occupants of Casitas coming and going plus emergency vehicles with sirens and lights during medical emergencies.

Historical Buildings and occupants require protetion to achieve conservation.

2.2.2 LIGHTING

This project will bring intrusive lighting to residents.
Even today the necessary street lamps have brought complaints from some residents of the lighting interfering with sleep. The higher Street and building lights of the proposed development will directly shine into either the front or back windows of homes directly sighted which will include many homes in the "Parkside" area.

2.2.3 NOISE and SOUND LEVELS

CEQA items:
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The answer is YES to both.

i) On a continuing basis, this is a 24x7 health support facility with some 150 patients and 92 staff. This is directly overlooking properly laid out residential areas and the Historic Corey House. The day to day working of the number of new residents cannot be expected to be quiet. Constant traffic of suppliers, professional workers, maintenance staff, family visitors and the residents themselves must also create a new source of noise.

ii) During the construction phase of up to two years the noise will be of traffic in and out and heavy construction equipment working continually. Because of the elevated construction site the particulate in the air will offensively drift down around the surrounding residences and Corey House. Really dirty air can be expected for up to two years according to the developer.
This will be directly contrary to the efforts of the owners of this existing development have over the years consistently taken steps to provide a quiet and safe living environment for all residents. (see below).

2.2.3.1 Commercial Development Avoided

On this Phase I property commercial development has been specifically avoided by the residential owners. The 5 acre commercially zoned area of the Phase I lands, to the north and adjacent to the main Las Palmas entrance was bought out by the Phase I owners with no commercial development planned. However the owners do insist on retaining the resources and the right to develop the parcels commercially at a later date when conditions warrant it.

Therefore, at this time this proposed project then goes directly against the express wishes of the present propery owners of Las Palmas Phase I some of whom have been resident there for a very long time.

2.2.3.2 Contractor Work Hours Limited

Further the Board of the HOA manages regulations which set and limit hours of work for contractors working on homes or service contractors serving the whole of Phase I. Once more this development has no obligation to support the wishes of the present residents.

2.3 Climate Change and Greenhouse Gas Emissions

Whilst climate change was not considered as part of the planning of the original Las Palmas Development, the effects of climate change today are very clear, noticeable and with extreme levels of heat in summer and storms in winter at Las Palmas I. It is introducing a wide variety of risks and even damage which require addressing.

2.3.1 Drought and Grass/Forest Fire Risk (see photo above Parcel "Q" adjacent to Residences)

This area and region is just coming through a 5 year summer drought, but with sufficient rain in the winters to grow long stretches of significant levels of long grasses forming

fuel for grass/forest fires. The Soberanes fire of 2015 was intentionally set and covered some 33 sq. miles and destroyed some 50 structures. It started in similar terrain to Las Palmas and just a few miles south of this location. The photo above shows the slopes below the proposed development and the fence of the adjacent residences of Las Palmas I. In summer there are many continuous miles of this fire hazard of grass, brush and trees.

2.3.2 Winter Heavy Rains and Flood

Climate change not only means events such as the drought outlined above but also more extreme precipitation and wind in the winter months. Parcel "Q" is not designed nor ready for those events. So, this winter stormy weather caused two mud slides from the Parcel "Q" property which spilled onto the Phase I property covering a storm drain and ditch line which resulted in a flood into the back yards and close to the homes of two residential properties. The flood also closed the Emergency Access Road to the Country Park Road residences of Phase I. The Fire Department teams mobilized and responded to assist with the clearing of storm drain and flood water.
See below the overall mud slide some 30ft long and 10ft wide and many ft deep.
Another slide occured from the top of the rear part of the property onto River Road, the 4 lane access highway.

Photo Above: Shows the mud slide showing the back yard fences (21044

Country Park Road -approx) plus the debris on the Fire Access road (now impassable). The mud towers above the storm drain, the blocking of which caused the flood through the back yards right up to the adjacent homes.

These slopes have angles up to 60 degrees with no remediation to ensure stability as has been constructed in other parts of the development.(see photo below) The left part of the photo shows the start of the high Couloir which swings round. There is a lot more soft "mud" to feed slides in future storms. The Fire Department mobilized to help eliminate the flood.

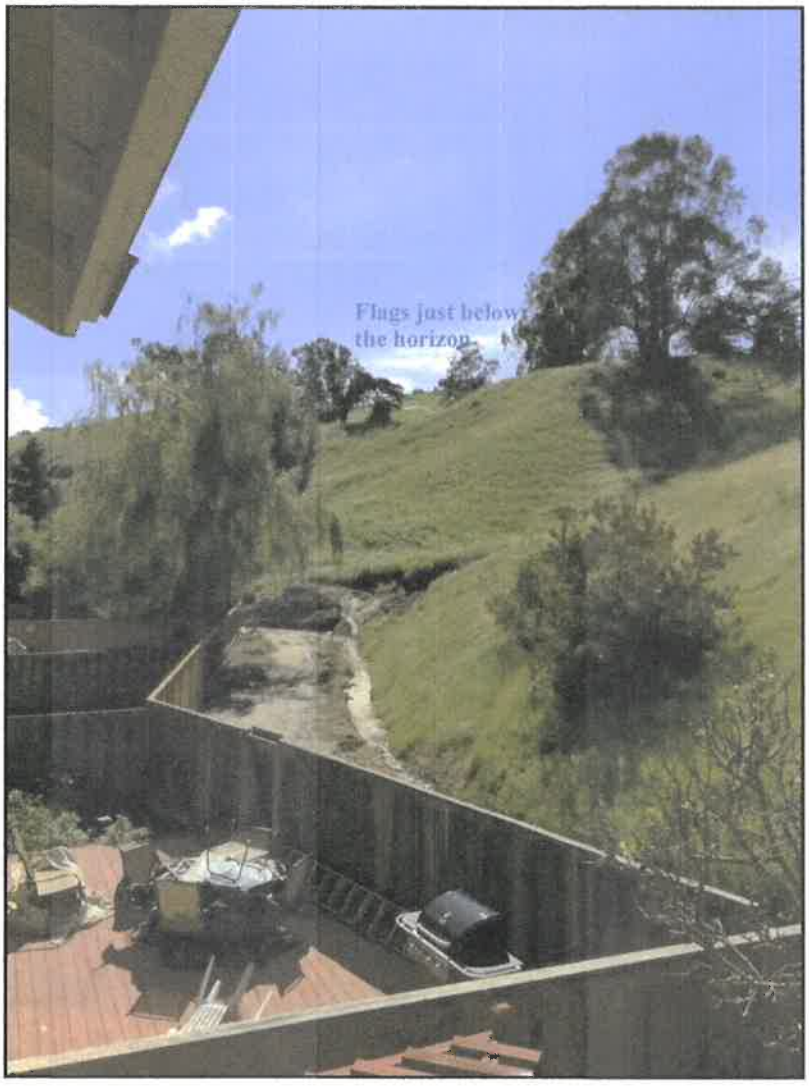
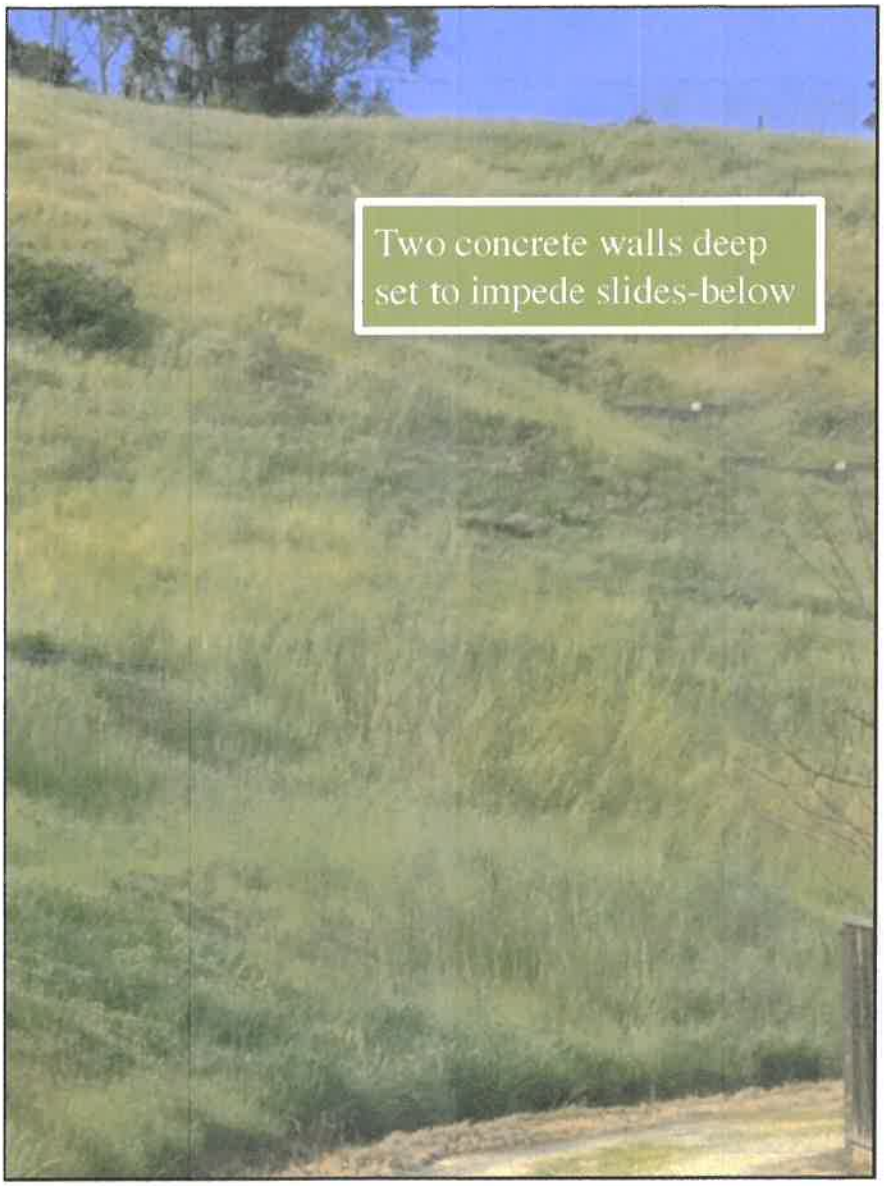


Photo Above
Showing the trail behind the House line of Country Park Road. Also showing the mud slide at the trail corner and the proposed building flagging above. Also showing above is the damage to the ditch line part of the phase I storm drain system. The Storm Drain access at the corner became blocked causing flood waters into back yards and right to the backdoor of a home. All of which have yet to be fixed.

<u>Below are shown</u> slopes further up Country Park Road with deep set concrete walls at several levels designed to impede slides. No such work has been carried out on the slopes below the proposed project on Parcel Q.



2.3.3 **Occupancy Issues**

a) The relatively high per capita occupancy of the view property certainly diplaces the relatively abundant wild life and eliminates or disturbs the flora.

b) This development represents old thinking in the support and treatment of memory stressed patients. Locking them away with limited or no social interaction. Other similar facilities in the area are better located.

c) In a catastrophic event (e.g. Fire, Flood, Earthquake) evacuation of all patients and staff would be problematic risking other home owners too. (see Sec 2.6.2)

2.4 Hydrology/Water Quality

CEQA Guidlines

IX. 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 of the local groundwater table level (e.g., the production rate of pre- existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j) Inundation by seiche, tsunami, or mudflow?

Several of these issues have **Potentially Significant Impact** with or without Mitigation Incorporated. See commentary below.

Commentary:

2.4.1 Potable Water - Ground Water use (CEQA a) and b): 2 items

a) Whilst 'letters to serve' have been issued they are limited in time and the drought is not certain to be declared over to ensure new supplies will be available.

b) With Corey House now licensed as a full service hotel and the Owners of the commercial lots in the Las Palmas Special Plan insisting on retaining their right to develop those commercial lots at a later date, then re-assignment of existing approved water uses does not exist.

2.4.2 Wastewater Use.

The preliminary "Project Plan/Description" (Lombardo & Assoc. - May 2016) asserts the requirement to use Las Palmas Phase I wastewater system for irrigation purposes. However, the drought has shown that these waters in today's circumstances may not be available. This deficiency has serious consequences as the elevated project will not generate its own supply, therefore ignoring raised fire risks.
Without occupation this elevated parcel "Q" already exhibits a fire risk often year round and with the potential of high occupancy that risk is raised much higher. (see Page 11).

2.4.3 Flood Risk Established (CEQA - j)

This risk is already established even before stormwater from potential access roads, parking lots and buildings occurs. (see pages 11 and 12). Winter 2016-2017 was a wet one and runoff from Parcel "Q" caused two mudslides which pushed mud and water onto Las Palmas Phase I properties; compromised the storm drain system and caused floods which closed the Emergency Access road behind County Park Road (for 3 weeks) and flooded the backyards of two homes with flood water reaching the rear door of one home.

2.4.4 Earthquake Zone - Risk Established

Within a week of the Emergency Access road being re-opened this spring, the earthquake at Aromas, clearly felt in this area, caused part of the mud wall left by the clearing contractor to fall back from Parcel Q onto the storm drain of Las Palmas.
Whilst this did not close the drain again, the risk of damage is now constant without remediation.

2.5 Land Use and Planning

CEQA Guidelines The following are considered to have a "Potentially Significant Impact" on the enviroment.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

d) Conflict with Community Plan Objectives.

Conflicts

This project conflicts with the original "Special Plan", Las Palmas Phase I and Phase II of the 1980's for the development of a total of 1,035 residences, which so far has been carefully followed. There are also conflicts with the Monterey County General plan.

a) The original development containing Las Palmas I is almost filled out in accordance with the Las Palmas Special Plan of the1980's. The original developer's plan for parcel "Q" was for the construction of 5 high end residential homes. (see Fall 2009 Public Meeting Fletcher/HOA residents). This has not been completed. The Project Description/Plan called RVLP (see Lombardo and Associates - May 2016) is a Medical Support and Treatment Facility - a relatively large business and quite incompatible with the existing gated, secure residential development of some 340 homes most established for over twenty years.

b) However, in the detail of the new Project Description called RVLP on Page 2 includes an outline of the 13 Casitas (26 individual living units) as "allowing for independent living including fixing their own meals and keeping their vehicles". Assistance is just an optional extra service. Therefore these are or actually can be independent living units which alone would take the overall growth development of Las Palmas over its planned limit. A violation of Monterey County General Plan and the Las Palmas Specific Plan.

b) There is a County Land Use requirements that "land uses be compatible with adjacent land uses". Overall, this RVLP proposal is a large commercial business in the support and treatment of patients needing that support. This is not compatible with Las Palmas Phase I whose owners have confirmed the objective of residential quietness and security by buying out the "Commercially zoned" lots adjacent to the main Las Palmas entrance. Further, they have added extensive security to the residential development essential in today's world around Salinas. This security woud be seriously compromised by the RVLP development. This incompatibility was confirmed by the voting record of the LUAC meeting (Toro Land Use Advisory Commission) of September 2016.

c) Ridge Development: This development on the elevated hill top parcel "Q" is essentially 'ridgeline development' which is not allowed in the County, especially in the "Toro Scenic Highway Corridors". The view from the new walking/cycle trail across the Salinas River on Highway 68, also from parts of River Road, plus from street level in Las Palmas I, will all confirm that. Further the roads mentioned above are designated as visually sensitive for Tourism development purposes. Scenic values should be preserved. The three story buildings with elevators and say, a 40 ft roof line cannot be hidden on that elevated land. Few large trees are left after these winter storms and new ones will take a long time to grow. This development will be a "blot on the landscape" and will not enhance the scenic value of the area.

d) Home Location: Both the County Board of Supervisors and the City of Salinas are on record of condemning developers whose developments leave elderly citizens well outside of community facilities which could otherwise allow access to services and community activites from which they may benefit. In the Salinas area specific critisism has been offered to the Tynan Development on Alisal. Further an analysis of other "Care Homes" in the Salinas area offering similar support and treatment facilities to RVLP are located in or adjacent to the community where medical and living support services are close-by and where beneficial services and supplies are available encouraging patients to participate in the community to some extent where possible.

2.5.1 Parcel Q - Original Plan

The published intent for the development of this parcel was for some 5 high end homes on what is in fact view property. Such a development of high end homes (or the number remaining to complete the joriginal plan) would be compatible with the existing huge investment in homes and operations made by the present owners of Las Palmas Phase I.

2.5.2 Utilities Services Limited & Assigned

i) Corey House (now Chateau Coralini) is licensed and set up as a boutique, full service Hotel.

ii) Other assigned utilities services are reserved for a future commercial development on the commercially zoned lots owned by the Las Palmas Phase I owners.
Therefore services for the proposed Parcel "Q" development are in reality not available.

2.6 Transportation and Traffic

CEQA Guidelines **The following are considered to have a "Potentially Significant Impact" on the enviroment.**

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Result in inadequate emergency access?

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

2.6.1 Traffic Estimates

Those from the developer are challenged.
24x7 staff cannot be expected to wait in remote areas for a bus. They will use their vehicles. Further, our volunteers's experience with these local homes which shows that every day can be visitor's day. These homes increasingly rely on family members to help patients to keep connected with family and friends who assist with their treatment.

2.6.2 Emergency Access and Egress

Recent studies of traffic at Las Palmas I is that the traffic patern is usually not heavy.
However the addition of the development and operational traffic will change that.
There are two acess to Las Palmas I. The North one has a control traffic light on to River Road. The second access, a few hundred yards south, is uncontrolled and in busy times is very difficult for Las Palmas residents to leave or assistance to come in from the south.
In a catastrophic event, (Fire, Earthquake etc) it will be difficult to evacuate the 340 home owners, let alone also the more remote patients and employees of the proposed development.
In this case there is no back door to the proposed development, as other such developments often have, and all must compete with local residents also wishing to leave. And it may be dark. Further, at the same time emergency crews will be trying to enter the complex via the single lane off ramp from River Road
This looks to be a recipe for a disaster for all.

Appendix 1

Reference: Project Description - River View at Las Palmas per Lombardo and Associates - May 2016

Pat McNeill
17592 River Run Road
Salinas CA, 93908
April 2, 2017

Luke Connolly, MCRMA-Planning
168 W. Alisal Street
Salinas, CA 93901

RE: PLN150372 EIR for River View at Las Palmas

As a long term resident of Las Palmas and an interested party, I would like to offer a few points on the EIR preparation for the proposed project.

1. Geologically, the property appears to be a marine terrace dating to a high stand of the Pacific Ocean during the Pleistocene era. Its age and location make it a highly possible location for Paleoindian occupation during the terminal Pleistocene and early Holocene. Such sites are extremely rare in California and consequently, the EIR should include an archaeology component conducted by Paleoindian specialists.
2. The encroachment by development around the parcel have left it in the position of a reservoir/refuge for numerous botanical species such as milkweed which is essential to the propagation of Monarch butterfly larvae, and juvenile coast live oak which are empirically absent from the surrounding lands which are either grazed or already suburbanized.
3. A socio-cultural norm has become established in the 25+ year hiatus of development since the original EIR for Las Palmas. The community of Las Palmas has long since progressed beyond being a flexible new development. Two generations of children have come of age living in the community. Numerous residents have moved away in the trajectory of life and career and returned at significant expense to re-enter the lifestyle they enjoyed before. The residents of Las Palmas have a right to expect continuity and stability in their community as-they-know-it.
4. If the proposed development will have a negative or de-stabilizing impact on any of the items listed above, the EIR must clearly determine the scope and sequence to mitigate impacts by the developer such that 'after' is an improvement over 'before'.

Thank you for the opportunity to contribute.

Sincerely,

Pat McNeill

COUNTY OF MONTEREY
HEALTH DEPARTMENT
Elsa Jimenez, Director of Health

Administration
Behavioral Health
Clinic Services
Emergency Medical Services
Environmental Health/Animal Services
Public Health
Public Administrator/Public Guardian

April 3, 2017

Luke Connolly
Monterey County Planning Department

RE: Notice of Preparation for an EIR: PLN150372, River View at Las Palmas, LLC

Dear Luke,

Thank you for the opportunity to comment on the scope of the Environmental Impact Report (EIR) for the this project.

The Monterey County Health Department, Environmental Health Bureau (EHB), will be the responsible agency to review and regulate the following:

- **Water and Sewage:** This project is intending to connect to California-American Water municipal services to meet the needs for Water and Wastewater for this project. Verification from California-American Water will be required prior to EHB supporting this project.

- **Food Facility:** EHB regulates food facilities pursuant to the CA Retail Food Code. Applicant will be required to submit for food plan check prior to issuance of building permits.

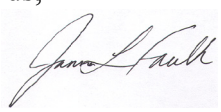
- **Medical Waste:** Prior to issuance of building permits a medical waste application will be required pursuant to California Health and Safety Code, Sections 117600-118360.

- **Hazardous Materials:** Hazardous Materials Business Response Plan will be required prior to commencement of operation pursuant to California Code of Regulations, Title 19, Division 2, Chapter 4; California Health and Safety Code, Division 20, Chapter 6.95; and MCC, Chapter 10.65).

- **Solid Waste:** A recycling plan and appropriate garbage enclosures will be required prior to issuance of building permits pursuant to Monterey County Code Chapter 10.41 and Chesbro, AB 341- (Statewide Mandatory Commercial Recycling). Additionally, Chesbro, AB1826- (Mandatory Organics Recycling) requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily dwellings that consist of five or more units. As of January 1, 2017 this mandate pertains to those facility's that generate 4 cubic yards or more of organic waste.

Please contact Janna Faulk at (831) 755-4549 or faulkjl@co.monterey.ca.us with questions.

Regards,



Janna L Faulk, REHS
Environmental Health Specialist III

APPENDIX C

CALIFORNIA EMISSIONS ESTIMATOR MODEL RESULTS

River View at Las Palmas Assisted Living Senior Facilty

Monterey Bay Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	69.12	1000sqft	1.59	69,120.00	0
Parking Lot	76.00	Space	0.68	30,400.00	0
Retirement Community	105.00	Dwelling Unit	2.07	147,355.00	147

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage (building coverage) and Bldg gross SF from project plans. Population based on 147 beds max from client.

Construction Off-road Equipment Mitigation - Per Air District guidelines

Area Mitigation - Per Air District guidelines

Energy Mitigation -

Water Mitigation -

Grading - Fill material to be imported and used onsite per project plan

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblGrading	MaterialImported	0.00	34,500.00
tblLandUse	BuildingSpaceSquareFeet	105,000.00	147,355.00
tblLandUse	LandUseSquareFeet	105,000.00	147,355.00
tblLandUse	LotAcreage	21.00	2.07
tblLandUse	Population	300.00	147.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.4725	4.4871	3.1703	7.4400e-003	0.2371	0.2088	0.4459	0.0829	0.1960	0.2788	0.0000	680.0583	680.0583	0.0985	0.0000	682.5214
2019	0.9722	0.2221	0.2230	3.9000e-004	6.9800e-003	0.0123	0.0193	1.8700e-003	0.0115	0.0134	0.0000	34.3330	34.3330	7.2700e-003	0.0000	34.5147
Maximum	**0.9722**	**4.4871**	**3.1703**	**7.4400e-003**	**0.2371**	**0.2088**	**0.4459**	**0.0829**	**0.1960**	**0.2788**	**0.0000**	**680.0583**	**680.0583**	**0.0985**	**0.0000**	**682.5214**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	0.7095	0.0126	1.0883	6.0000e-005		5.9800e-003	5.9800e-003		5.9800e-003	5.9800e-003	0.0000	1.7724	1.7724	1.7300e-003	0.0000	1.8157
Energy	7.5400e-003	0.0644	0.0274	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	230.5805	230.5805	8.4800e-003	2.8300e-003	231.6351
Mobile	0.1127	0.5845	1.3500	3.5800e-003	0.2596	4.4100e-003	0.2641	0.0698	4.1500e-003	0.0739	0.0000	328.5383	328.5383	0.0183	0.0000	328.9964
Waste						0.0000	0.0000		0.0000	0.0000	9.8045	0.0000	9.8045	0.5794	0.0000	24.2901
Water						0.0000	0.0000		0.0000	0.0000	2.1704	15.1602	17.3306	0.2236	5.4100e-003	24.5316
Total	**0.8297**	**0.6616**	**2.4657**	**4.0500e-003**	**0.2596**	**0.0156**	**0.2752**	**0.0698**	**0.0153**	**0.0851**	**11.9749**	**576.0514**	**588.0263**	**0.8316**	**8.2400e-003**	**611.2690**

4.0 Operational Detail - Mobile

4.1 Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.1127	0.5845	1.3500	3.5800e-003	0.2596	4.4100e-003	0.2641	0.0698	4.1500e-003	0.0739	0.0000	328.5383	328.5383	0.0183	0.0000	328.9964

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Retirement Community	252.00	213.15	204.75	690,549	690,549
Total	252.00	213.15	204.75	690,549	690,549

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Retirement Community	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028
Parking Lot	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028
Retirement Community	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	152.6161	152.6161	6.9000e-003	1.4300e-003	153.2141
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	155.9499	155.9499	7.0500e-003	1.4600e-003	156.5610
NaturalGas Mitigated	7.5400e-003	0.0644	0.0274	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6306	74.6306	1.4300e-003	1.3700e-003	75.0741
NaturalGas Unmitigated	7.5400e-003	0.0644	0.0274	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6306	74.6306	1.4300e-003	1.3700e-003	75.0741

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	1.39853e+006	7.5400e-003	0.0644	0.0274	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6306	74.6306	1.4300e-003	1.3700e-003	75.0741
Total		**7.5400e-003**	**0.0644**	**0.0274**	**4.1000e-004**		**5.2100e-003**	**5.2100e-003**		**5.2100e-003**	**5.2100e-003**	**0.0000**	**74.6306**	**74.6306**	**1.4300e-003**	**1.3700e-003**	**75.0741**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	1.39853e+006	7.5400e-003	0.0644	0.0274	4.1000e-004		5.2100e-003	5.2100e-003		5.2100e-003	5.2100e-003	0.0000	74.6306	74.6306	1.4300e-003	1.3700e-003	75.0741
Total		**7.5400e-003**	**0.0644**	**0.0274**	**4.1000e-004**		**5.2100e-003**	**5.2100e-003**		**5.2100e-003**	**5.2100e-003**	**0.0000**	**74.6306**	**74.6306**	**1.4300e-003**	**1.3700e-003**	**75.0741**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

Parking Lot	26752	7.7825	3.5000e-004	7.0000e-005	7.8130
Retirement Community	509321	148.1674	6.7000e-003	1.3900e-003	148.7480
Total		**155.9499**	**7.0500e-003**	**1.4600e-003**	**156.5610**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	26752	7.7825	3.5000e-004	7.0000e-005	7.8130
Retirement Community	497862	144.8337	6.5500e-003	1.3500e-003	145.4012
Total		**152.6161**	**6.9000e-003**	**1.4200e-003**	**153.2141**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7095	0.0126	1.0883	6.0000e-005		5.9800e-003	5.9800e-003		5.9800e-003	5.9800e-003	0.0000	1.7724	1.7724	1.7300e-003	0.0000	1.8157
Unmitigated	0.7095	0.0126	1.0883	6.0000e-005		5.9800e-003	5.9800e-003		5.9800e-003	5.9800e-003	0.0000	1.7724	1.7724	1.7300e-003	0.0000	1.8157

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0943					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5819					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0333	0.0126	1.0883	6.0000e-005		5.9800e-003	5.9800e-003		5.9800e-003	5.9800e-003	0.0000	1.7724	1.7724	1.7300e-003	0.0000	1.8157
Total	**0.7095**	**0.0126**	**1.0883**	**6.0000e-005**		**5.9800e-003**	**5.9800e-003**		**5.9800e-003**	**5.9800e-003**	**0.0000**	**1.7724**	**1.7724**	**1.7300e-003**	**0.0000**	**1.8157**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.7428	0.1789	4.3300e-003	20.5070
Unmitigated	17.3306	0.2236	5.4100e-003	24.5316

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Retirement Community	6.84117 / 4.31291	17.3306	0.2236	5.4100e-003	24.5316
Total		**17.3306**	**0.2236**	**5.4100e-003**	**24.5316**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Retirement Community	5.47294 / 4.31291	14.7428	0.1789	4.3300e-003	20.5070
Total		**14.7428**	**0.1789**	**4.3300e-003**	**20.5070**

River View at Las Palmas Assisted Living Senior Facilty

Monterey Bay Unified APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	69.12	1000sqft	1.59	69,120.00	0
Parking Lot	76.00	Space	0.68	30,400.00	0
Retirement Community	105.00	Dwelling Unit	2.07	147,355.00	147

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage (building coverage) and Bldg gross SF from project plans. Population based on 147 beds max from client.

Construction Off-road Equipment Mitigation - Per Air District guidelines

Area Mitigation - Per Air District guidelines

Energy Mitigation -

Water Mitigation -

Grading - Fill material to be imported and used onsite per project plan

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblGrading	MaterialImported	0.00	34,500.00
tblLandUse	BuildingSpaceSquareFeet	105,000.00	147,355.00
tblLandUse	LandUseSquareFeet	105,000.00	147,355.00
tblLandUse	LotAcreage	21.00	2.07
tblLandUse	Population	300.00	147.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	8.4811	209.7820	48.5526	0.4789	18.2141	2.6300	20.7924	9.9699	2.4592	12.3419	0.0000	50,365.5705	50,365.5705	2.8530	0.0000	50,436.8946
2019	105.1320	25.3241	23.0188	0.0456	1.1507	1.3285	2.4792	0.3095	1.2494	1.5589	0.0000	4,489.9714	4,489.9714	0.7262	0.0000	4,508.1258
Maximum	**105.1320**	**209.7820**	**48.5526**	**0.4789**	**18.2141**	**2.6300**	**20.7924**	**9.9699**	**2.4592**	**12.3419**	**0.0000**	**50,365.5705**	**50,365.5705**	**2.8530**	**0.0000**	**50,436.8946**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2018	8.4811	209.7820	48.5526	0.4789	12.7908	2.6300	15.4208	4.5080	2.4592	6.8800	0.0000	50,365.5705	50,365.5705	2.8530	0.0000	50,436.8946
2019	105.1320	25.3241	23.0188	0.0456	1.1507	1.3285	2.4792	0.3095	1.2494	1.5589	0.0000	4,489.9714	4,489.9714	0.7262	0.0000	4,508.1258
Maximum	**105.1320**	**209.7820**	**48.5526**	**0.4789**	**12.7908**	**2.6300**	**15.4208**	**4.5080**	**2.4592**	**6.8800**	**0.0000**	**50,365.5705**	**50,365.5705**	**2.8530**	**0.0000**	**50,436.8946**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**28.01**	**0.00**	**23.08**	**53.13**	**0.00**	**39.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121
Energy	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Mobile	0.6946	3.2431	7.8935	0.0216	1.5476	0.0254	1.5730	0.4147	0.0239	0.4386		2,186.6652	2,186.6652	0.1171		2,189.5932
Total	**4.7072**	**3.6969**	**16.7501**	**0.0244**	**1.5476**	**0.1018**	**1.6494**	**0.4147**	**0.1003**	**0.5149**	**0.0000**	**2,653.0686**	**2,653.0686**	**0.1411**	**8.2600e-003**	**2,659.0578**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121

Energy	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Mobile	0.6946	3.2431	7.8935	0.0216	1.5476	0.0254	1.5730	0.4147	0.0239	0.4386		2,186.6652	2,186.6652	0.1171		2,189.5932
Total	**4.7072**	**3.6969**	**16.7501**	**0.0244**	**1.5476**	**0.1018**	**1.6494**	**0.4147**	**0.1003**	**0.5149**	**0.0000**	**2,653.0686**	**2,653.0686**	**0.1411**	**8.2600e-003**	**2,659.0578**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/8/2018	2/2/2018	5	20	
2	Site Preparation	Site Preparation	2/3/2018	2/9/2018	5	5	
3	Grading	Grading	2/10/2018	2/21/2018	5	8	
4	Building Construction	Building Construction	2/22/2018	1/9/2019	5	230	
5	Paving	Paving	1/10/2019	2/4/2019	5	18	
6	Architectural Coating	Architectural Coating	2/5/2019	2/28/2019	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 2.27

Residential Indoor: 298,394; Residential Outdoor: 99,465; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,312.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0804	0.0672	0.7084	1.3800e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		137.2751	137.2751	6.9700e-003		137.4494
Total	**0.0804**	**0.0672**	**0.7084**	**1.3800e-003**	**0.1232**	**1.1100e-003**	**0.1243**	**0.0327**	**1.0200e-003**	**0.0337**		**137.2751**	**137.2751**	**6.9700e-003**		**137.4494**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0804	0.0672	0.7084	1.3800e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		137.2751	137.2751	6.9700e-003		137.4494
Total	**0.0804**	**0.0672**	**0.7084**	**1.3800e-003**	**0.1232**	**1.1100e-003**	**0.1243**	**0.0327**	**1.0200e-003**	**0.0337**		**137.2751**	**137.2751**	**6.9700e-003**		**137.4494**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000

Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0965	0.0806	0.8500	1.6600e-003	0.1479	1.3300e-003	0.1492	0.0392	1.2300e-003	0.0405		164.7301	164.7301	8.3700e-003		164.9393
Total	**0.0965**	**0.0806**	**0.8500**	**1.6600e-003**	**0.1479**	**1.3300e-003**	**0.1492**	**0.0392**	**1.2300e-003**	**0.0405**		**164.7301**	**164.7301**	**8.3700e-003**		**164.9393**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**8.1298**	**2.5769**	**10.7067**	**4.4688**	**2.3708**	**6.8396**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0965	0.0806	0.8500	1.6600e-003	0.1479	1.3300e-003	0.1492	0.0392	1.2300e-003	0.0405		164.7301	164.7301	8.3700e-003		164.9393
Total	**0.0965**	**0.0806**	**0.8500**	**1.6600e-003**	**0.1479**	**1.3300e-003**	**0.1492**	**0.0392**	**1.2300e-003**	**0.0405**		**164.7301**	**164.7301**	**8.3700e-003**		**164.9393**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2196	0.0000	7.2196	3.4685	0.0000	3.4685			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272		2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**7.2196**	**1.5513**	**8.7709**	**3.4685**	**1.4272**	**4.8957**		**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	5.6275	179.0423	31.2673	0.4479	9.4187	1.0776	10.4964	2.5812	1.0310	3.6122		47,240.2739	47,240.2739	1.9158		47,288.1683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0804	0.0672	0.7084	1.3800e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		137.2751	137.2751	6.9700e-003		137.4494
Total	**5.7079**	**179.1095**	**31.9756**	**0.4492**	**9.5420**	**1.0787**	**10.6207**	**2.6139**	**1.0320**	**3.6459**		**47,377.5489**	**47,377.5489**	**1.9228**		**47,425.6177**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2488	0.0000	3.2488	1.5608	0.0000	1.5608			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272	0.0000	2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**3.2488**	**1.5513**	**4.8002**	**1.5608**	**1.4272**	**2.9881**	**0.0000**	**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6275	179.0423	31.2673	0.4479	9.4187	1.0776	10.4964	2.5812	1.0310	3.6122		47,240.2739	47,240.2739	1.9158		47,288.1683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0804	0.0672	0.7084	1.3800e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		137.2751	137.2751	6.9700e-003		137.4494
Total	**5.7079**	**179.1095**	**31.9756**	**0.4492**	**9.5420**	**1.0787**	**10.6207**	**2.6139**	**1.0320**	**3.6459**		**47,377.5489**	**47,377.5489**	**1.9228**		**47,425.6177**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1770	4.0123	1.0954	8.2100e-003	0.1896	0.0375	0.2270	0.0546	0.0359	0.0904		861.6025	861.6025	0.0493		862.8354
Worker	0.6270	0.5241	5.5253	0.0108	0.9611	8.6400e-003	0.9698	0.2549	7.9800e-003	0.2629		1,070.7455	1,070.7455	0.0544		1,072.1054
Total	**0.8040**	**4.5364**	**6.6207**	**0.0190**	**1.1507**	**0.0461**	**1.1968**	**0.3095**	**0.0438**	**0.3533**		**1,932.3480**	**1,932.3480**	**0.1037**		**1,934.9408**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1770	4.0123	1.0954	8.2100e-003	0.1896	0.0375	0.2270	0.0546	0.0359	0.0904		861.6025	861.6025	0.0493		862.8354
Worker	0.6270	0.5241	5.5253	0.0108	0.9611	8.6400e-003	0.9698	0.2549	7.9800e-003	0.2629		1,070.7455	1,070.7455	0.0544		1,072.1054
Total	**0.8040**	**4.5364**	**6.6207**	**0.0190**	**1.1507**	**0.0461**	**1.1968**	**0.3095**	**0.0438**	**0.3533**		**1,932.3480**	**1,932.3480**	**0.1037**		**1,934.9408**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635

Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1538	3.7853	0.9653	8.1800e-003	0.1896	0.0303	0.2199	0.0546	0.0290	0.0836		857.9888	857.9888	0.0470		859.1636
Worker	0.5627	0.4600	4.8897	0.0105	0.9611	8.3000e-003	0.9694	0.2549	7.6600e-003	0.2626		1,040.4024	1,040.4024	0.0479		1,041.5988
Total	**0.7164**	**4.2453**	**5.8550**	**0.0187**	**1.1507**	**0.0386**	**1.1893**	**0.3095**	**0.0367**	**0.3462**		**1,898.3912**	**1,898.3912**	**0.0948**		**1,900.7624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1538	3.7853	0.9653	8.1800e-003	0.1896	0.0303	0.2199	0.0546	0.0290	0.0836		857.9888	857.9888	0.0470		859.1636
Worker	0.5627	0.4600	4.8897	0.0105	0.9611	8.3000e-003	0.9694	0.2549	7.6600e-003	0.2626		1,040.4024	1,040.4024	0.0479		1,041.5988
Total	**0.7164**	**4.2453**	**5.8550**	**0.0187**	**1.1507**	**0.0386**	**1.1893**	**0.3095**	**0.0367**	**0.3462**		**1,898.3912**	**1,898.3912**	**0.0948**		**1,900.7624**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637		1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5983**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**		**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0786	0.8358	1.7900e-003	0.1643	1.4200e-003	0.1657	0.0436	1.3100e-003	0.0449		177.8466	177.8466	8.1800e-003		178.0511
Total	**0.0962**	**0.0786**	**0.8358**	**1.7900e-003**	**0.1643**	**1.4200e-003**	**0.1657**	**0.0436**	**1.3100e-003**	**0.0449**		**177.8466**	**177.8466**	**8.1800e-003**		**178.0511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637	0.0000	1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5983**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**	**0.0000**	**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0962	0.0786	0.8358	1.7900e-003	0.1643	1.4200e-003	0.1657	0.0436	1.3100e-003	0.0449		177.8466	177.8466	8.1800e-003		178.0511
Total	**0.0962**	**0.0786**	**0.8358**	**1.7900e-003**	**0.1643**	**1.4200e-003**	**0.1657**	**0.0436**	**1.3100e-003**	**0.0449**		**177.8466**	**177.8466**	**8.1800e-003**		**178.0511**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	104.7550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**105.0214**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1106	0.0904	0.9612	2.0600e-003	0.1889	1.6300e-003	0.1906	0.0501	1.5100e-003	0.0516		204.5236	204.5236	9.4100e-003		204.7587
Total	**0.1106**	**0.0904**	**0.9612**	**2.0600e-003**	**0.1889**	**1.6300e-003**	**0.1906**	**0.0501**	**1.5100e-003**	**0.0516**		**204.5236**	**204.5236**	**9.4100e-003**		**204.7587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	104.7550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**105.0214**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1106	0.0904	0.9612	2.0600e-003	0.1889	1.6300e-003	0.1906	0.0501	1.5100e-003	0.0516		204.5236	204.5236	9.4100e-003		204.7587
Total	**0.1106**	**0.0904**	**0.9612**	**2.0600e-003**	**0.1889**	**1.6300e-003**	**0.1906**	**0.0501**	**1.5100e-003**	**0.0516**		**204.5236**	**204.5236**	**9.4100e-003**		**204.7587**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Mitigated	0.6946	3.2431	7.8935	0.0216	1.5476	0.0254	1.5730	0.4147	0.0239	0.4386		2,186.6652	2,186.6652	0.1171		2,189.5932
Unmitigated	0.6946	3.2431	7.8935	0.0216	1.5476	0.0254	1.5730	0.4147	0.0239	0.4386		2,186.6652	2,186.6652	0.1171		2,189.5932

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Retirement Community	252.00	213.15	204.75	690,549	690,549
Total	252.00	213.15	204.75	690,549	690,549

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Retirement Community	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028
Parking Lot	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028
Retirement Community	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
NaturalGas Unmitigated	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3831.58	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Total		**0.0413**	**0.3531**	**0.1503**	**2.2500e-003**		**0.0286**	**0.0286**		**0.0286**	**0.0286**		**450.7737**	**450.7737**	**8.6400e-003**	**8.2600e-003**	**453.4524**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3.83158	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Total		**0.0413**	**0.3531**	**0.1503**	**2.2500e-003**		**0.0286**	**0.0286**		**0.0286**	**0.0286**		**450.7737**	**450.7737**	**8.6400e-003**	**8.2600e-003**	**453.4524**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121
Unmitigated	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					

Architectural Coating	0.5166					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2661	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478		15.6298	15.6298	0.0153		16.0121
Total	**3.9713**	**0.1007**	**8.7063**	**4.6000e-004**		**0.0478**	**0.0478**		**0.0478**	**0.0478**	**0.0000**	**15.6298**	**15.6298**	**0.0153**	**0.0000**	**16.0121**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5166					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2661	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478		15.6298	15.6298	0.0153		16.0121
Total	**3.9713**	**0.1007**	**8.7063**	**4.6000e-004**		**0.0478**	**0.0478**		**0.0478**	**0.0478**	**0.0000**	**15.6298**	**15.6298**	**0.0153**	**0.0000**	**16.0121**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

River View at Las Palmas Assisted Living Senior Facilty

Monterey Bay Unified APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	69.12	1000sqft	1.59	69,120.00	0
Parking Lot	76.00	Space	0.68	30,400.00	0
Retirement Community	105.00	Dwelling Unit	2.07	147,355.00	147

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage (building coverage) and Bldg gross SF from project plans. Population based on 147 beds max from client.

Construction Off-road Equipment Mitigation - Per Air District guidelines

Area Mitigation - Per Air District guidelines

Energy Mitigation -

Water Mitigation -

Grading - Fill material to be imported and used onsite per project plan

Table Name	Column Name	Default Value	New Value

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblGrading	MaterialImported	0.00	34,500.00
tblLandUse	BuildingSpaceSquareFeet	105,000.00	147,355.00
tblLandUse	LandUseSquareFeet	105,000.00	147,355.00
tblLandUse	LotAcreage	21.00	2.07
tblLandUse	Population	300.00	147.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	8.6710	213.7687	51.8586	0.4697	18.2141	2.6528	20.7924	9.9699	2.4810	12.3419	0.0000	49,393.3769	49,393.3769	3.0265	0.0000	49,469.0384
2019	105.1427	25.4843	23.1662	0.0447	1.1507	1.3291	2.4798	0.3095	1.2500	1.5595	0.0000	4,401.1835	4,401.1835	0.7295	0.0000	4,419.4208
Maximum	**105.1427**	**213.7687**	**51.8586**	**0.4697**	**18.2141**	**2.6528**	**20.7924**	**9.9699**	**2.4810**	**12.3419**	**0.0000**	**49,393.3769**	**49,393.3769**	**3.0265**	**0.0000**	**49,469.0384**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2018	8.6710	213.7687	51.8586	0.4697	12.7908	2.6528	15.4436	4.5080	2.4810	6.8800	0.0000	49,393.3769	49,393.3769	3.0265	0.0000	49,469.0384
2019	105.1427	25.4843	23.1662	0.0447	1.1507	1.3291	2.4798	0.3095	1.2500	1.5595	0.0000	4,401.1835	4,401.1835	0.7295	0.0000	4,419.4208
Maximum	**105.1427**	**213.7687**	**51.8586**	**0.4697**	**12.7908**	**2.6528**	**15.4436**	**4.5080**	**2.4810**	**6.8800**	**0.0000**	**49,393.3769**	**49,393.3769**	**3.0265**	**0.0000**	**49,469.0384**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**28.01**	**0.00**	**22.98**	**53.13**	**0.00**	**39.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121
Energy	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Mobile	0.6561	3.4548	8.2577	0.0206	1.5476	0.0257	1.5733	0.4147	0.0242	0.4389		2,077.3240	2,077.3240	0.1200		2,080.3239
Total	**4.6688**	**3.9086**	**17.1143**	**0.0233**	**1.5476**	**0.1021**	**1.6497**	**0.4147**	**0.1006**	**0.5152**	**0.0000**	**2,543.7274**	**2,543.7274**	**0.1439**	**8.2600e-003**	**2,549.7885**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121

Energy	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Mobile	0.6561	3.4548	8.2577	0.0206	1.5476	0.0257	1.5733	0.4147	0.0242	0.4389		2,077.3240	2,077.3240	0.1200		2,080.3239
Total	**4.6688**	**3.9086**	**17.1143**	**0.0233**	**1.5476**	**0.1021**	**1.6497**	**0.4147**	**0.1006**	**0.5152**	**0.0000**	**2,543.7274**	**2,543.7274**	**0.1439**	**8.2600e-003**	**2,549.7885**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/8/2018	2/2/2018	5	20	
2	Site Preparation	Site Preparation	2/3/2018	2/9/2018	5	5	
3	Grading	Grading	2/10/2018	2/21/2018	5	8	
4	Building Construction	Building Construction	2/22/2018	1/9/2019	5	230	
5	Paving	Paving	1/10/2019	2/4/2019	5	18	
6	Architectural Coating	Architectural Coating	2/5/2019	2/28/2019	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 2.27

Residential Indoor: 298,394; Residential Outdoor: 99,465; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,312.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0883	0.0843	0.7128	1.3000e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		129.0333	129.0333	6.7700e-003		129.2025
Total	**0.0883**	**0.0843**	**0.7128**	**1.3000e-003**	**0.1232**	**1.1100e-003**	**0.1243**	**0.0327**	**1.0200e-003**	**0.0337**		**129.0333**	**129.0333**	**6.7700e-003**		**129.2025**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**	**0.0000**	**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0883	0.0843	0.7128	1.3000e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		129.0333	129.0333	6.7700e-003		129.2025
Total	**0.0883**	**0.0843**	**0.7128**	**1.3000e-003**	**0.1232**	**1.1100e-003**	**0.1243**	**0.0327**	**1.0200e-003**	**0.0337**		**129.0333**	**129.0333**	**6.7700e-003**		**129.2025**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000

Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1060	0.1012	0.8554	1.5600e-003	0.1479	1.3300e-003	0.1492	0.0392	1.2300e-003	0.0405		154.8400	154.8400	8.1200e-003		155.0430
Total	**0.1060**	**0.1012**	**0.8554**	**1.5600e-003**	**0.1479**	**1.3300e-003**	**0.1492**	**0.0392**	**1.2300e-003**	**0.0405**		**154.8400**	**154.8400**	**8.1200e-003**		**155.0430**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**8.1298**	**2.5769**	**10.7067**	**4.4688**	**2.3708**	**6.8396**	**0.0000**	**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1060	0.1012	0.8554	1.5600e-003	0.1479	1.3300e-003	0.1492	0.0392	1.2300e-003	0.0405		154.8400	154.8400	8.1200e-003		155.0430
Total	**0.1060**	**0.1012**	**0.8554**	**1.5600e-003**	**0.1479**	**1.3300e-003**	**0.1492**	**0.0392**	**1.2300e-003**	**0.0405**		**154.8400**	**154.8400**	**8.1200e-003**		**155.0430**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2196	0.0000	7.2196	3.4685	0.0000	3.4685			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272		2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**7.2196**	**1.5513**	**8.7709**	**3.4685**	**1.4272**	**4.8957**		**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	5.8095	183.0118	34.5688	0.4387	9.4187	1.1004	10.5191	2.5812	1.0528	3.6340		46,276.3220	46,276.3220	2.0895		46,328.5589
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0883	0.0843	0.7128	1.3000e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		129.0333	129.0333	6.7700e-003		129.2025
Total	**5.8978**	**183.0961**	**35.2817**	**0.4400**	**9.5420**	**1.1015**	**10.6434**	**2.6139**	**1.0538**	**3.6677**		**46,405.3553**	**46,405.3553**	**2.0963**		**46,457.7615**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2488	0.0000	3.2488	1.5608	0.0000	1.5608			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272	0.0000	2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**3.2488**	**1.5513**	**4.8002**	**1.5608**	**1.4272**	**2.9881**	**0.0000**	**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8095	183.0118	34.5688	0.4387	9.4187	1.1004	10.5191	2.5812	1.0528	3.6340		46,276.3220	46,276.3220	2.0895		46,328.5589
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0883	0.0843	0.7128	1.3000e-003	0.1232	1.1100e-003	0.1243	0.0327	1.0200e-003	0.0337		129.0333	129.0333	6.7700e-003		129.2025
Total	**5.8978**	**183.0961**	**35.2817**	**0.4400**	**9.5420**	**1.1015**	**10.6434**	**2.6139**	**1.0538**	**3.6677**		**46,405.3553**	**46,405.3553**	**2.0963**		**46,457.7615**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1864	4.0648	1.2568	7.9700e-003	0.1896	0.0382	0.2277	0.0546	0.0365	0.0911		835.8724	835.8724	0.0542		837.2283
Worker	0.6887	0.6577	5.5599	0.0101	0.9611	8.6400e-003	0.9698	0.2549	7.9800e-003	0.2629		1,006.4598	1,006.4598	0.0528		1,007.7797
Total	**0.8751**	**4.7225**	**6.8168**	**0.0181**	**1.1507**	**0.0468**	**1.1975**	**0.3095**	**0.0445**	**0.3540**		**1,842.3321**	**1,842.3321**	**0.1070**		**1,845.0080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099	0.0000	2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**	**0.0000**	**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1864	4.0648	1.2568	7.9700e-003	0.1896	0.0382	0.2277	0.0546	0.0365	0.0911		835.8724	835.8724	0.0542		837.2283
Worker	0.6887	0.6577	5.5599	0.0101	0.9611	8.6400e-003	0.9698	0.2549	7.9800e-003	0.2629		1,006.4598	1,006.4598	0.0528		1,007.7797
Total	**0.8751**	**4.7225**	**6.8168**	**0.0181**	**1.1507**	**0.0468**	**1.1975**	**0.3095**	**0.0445**	**0.3540**		**1,842.3321**	**1,842.3321**	**0.1070**		**1,845.0080**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635

Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1620	3.8279	1.1124	7.9300e-003	0.1896	0.0310	0.2205	0.0546	0.0296	0.0842		831.7986	831.7986	0.0519		833.0955
Worker	0.6166	0.5776	4.8900	9.8400e-003	0.9611	8.3000e-003	0.9694	0.2549	7.6600e-003	0.2626		977.8047	977.8047	0.0463		978.9619
Total	**0.7786**	**4.4055**	**6.0024**	**0.0178**	**1.1507**	**0.0393**	**1.1900**	**0.3095**	**0.0373**	**0.3468**		**1,809.6033**	**1,809.6033**	**0.0982**		**1,812.0574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1620	3.8279	1.1124	7.9300e-003	0.1896	0.0310	0.2205	0.0546	0.0296	0.0842		831.7986	831.7986	0.0519		833.0955
Worker	0.6166	0.5776	4.8900	9.8400e-003	0.9611	8.3000e-003	0.9694	0.2549	7.6600e-003	0.2626		977.8047	977.8047	0.0463		978.9619
Total	**0.7786**	**4.4055**	**6.0024**	**0.0178**	**1.1507**	**0.0393**	**1.1900**	**0.3095**	**0.0373**	**0.3468**		**1,809.6033**	**1,809.6033**	**0.0982**		**1,812.0574**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637		1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5983**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**		**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1054	0.0987	0.8359	1.6800e-003	0.1643	1.4200e-003	0.1657	0.0436	1.3100e-003	0.0449		167.1461	167.1461	7.9100e-003		167.3439
Total	**0.1054**	**0.0987**	**0.8359**	**1.6800e-003**	**0.1643**	**1.4200e-003**	**0.1657**	**0.0436**	**1.3100e-003**	**0.0449**		**167.1461**	**167.1461**	**7.9100e-003**		**167.3439**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637	0.0000	1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.3304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5983**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**	**0.0000**	**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1054	0.0987	0.8359	1.6800e-003	0.1643	1.4200e-003	0.1657	0.0436	1.3100e-003	0.0449		167.1461	167.1461	7.9100e-003		167.3439
Total	**0.1054**	**0.0987**	**0.8359**	**1.6800e-003**	**0.1643**	**1.4200e-003**	**0.1657**	**0.0436**	**1.3100e-003**	**0.0449**		**167.1461**	**167.1461**	**7.9100e-003**		**167.3439**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	104.7550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**105.0214**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1212	0.1136	0.9613	1.9300e-003	0.1889	1.6300e-003	0.1906	0.0501	1.5100e-003	0.0516		192.2180	192.2180	9.1000e-003		192.4455
Total	**0.1212**	**0.1136**	**0.9613**	**1.9300e-003**	**0.1889**	**1.6300e-003**	**0.1906**	**0.0501**	**1.5100e-003**	**0.0516**		**192.2180**	**192.2180**	**9.1000e-003**		**192.4455**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	104.7550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**105.0214**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1212	0.1136	0.9613	1.9300e-003	0.1889	1.6300e-003	0.1906	0.0501	1.5100e-003	0.0516		192.2180	192.2180	9.1000e-003		192.4455
Total	**0.1212**	**0.1136**	**0.9613**	**1.9300e-003**	**0.1889**	**1.6300e-003**	**0.1906**	**0.0501**	**1.5100e-003**	**0.0516**		**192.2180**	**192.2180**	**9.1000e-003**		**192.4455**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Mitigated	0.6561	3.4548	8.2577	0.0206	1.5476	0.0257	1.5733	0.4147	0.0242	0.4389		2,077.3240	2,077.3240	0.1200		2,080.3239
Unmitigated	0.6561	3.4548	8.2577	0.0206	1.5476	0.0257	1.5733	0.4147	0.0242	0.4389		2,077.3240	2,077.3240	0.1200		2,080.3239

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Retirement Community	252.00	213.15	204.75	690,549	690,549
Total	252.00	213.15	204.75	690,549	690,549

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Retirement Community	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028
Parking Lot	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028
Retirement Community	0.533000	0.030830	0.199754	0.134871	0.025112	0.005817	0.017861	0.037451	0.003065	0.002809	0.007291	0.001110	0.001028

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
NaturalGas Unmitigated	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3831.58	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Total		**0.0413**	**0.3531**	**0.1503**	**2.2500e-003**		**0.0286**	**0.0286**		**0.0286**	**0.0286**		**450.7737**	**450.7737**	**8.6400e-003**	**8.2600e-003**	**453.4524**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Retirement Community	3.83158	0.0413	0.3531	0.1503	2.2500e-003		0.0286	0.0286		0.0286	0.0286		450.7737	450.7737	8.6400e-003	8.2600e-003	453.4524
Total		**0.0413**	**0.3531**	**0.1503**	**2.2500e-003**		**0.0286**	**0.0286**		**0.0286**	**0.0286**		**450.7737**	**450.7737**	**8.6400e-003**	**8.2600e-003**	**453.4524**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121
Unmitigated	3.9713	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478	0.0000	15.6298	15.6298	0.0153	0.0000	16.0121

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					

Architectural Coating	0.5166					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2661	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478		15.6298	15.6298	0.0153		16.0121
Total	**3.9713**	**0.1007**	**8.7063**	**4.6000e-004**		**0.0478**	**0.0478**		**0.0478**	**0.0478**	**0.0000**	**15.6298**	**15.6298**	**0.0153**	**0.0000**	**16.0121**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5166					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1887					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2661	0.1007	8.7063	4.6000e-004		0.0478	0.0478		0.0478	0.0478		15.6298	15.6298	0.0153		16.0121
Total	**3.9713**	**0.1007**	**8.7063**	**4.6000e-004**		**0.0478**	**0.0478**		**0.0478**	**0.0478**	**0.0000**	**15.6298**	**15.6298**	**0.0153**	**0.0000**	**16.0121**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX D

TRAFFIC REPORT

Received by RMA-Planning
on February 12, 2018.

Keith Higgins
Traffic Engineer

RIVERVIEW AT LAS PALMAS SENIOR HOUSING TRAFFIC IMPACT ANALYSIS

ADMINISTRATIVE DRAFT REPORT

MONTEREY COUNTY, CALIFORNIA

Prepared for
Riverview at Las Palmas, LLC
Carmel, CA 93923

Prepared by
Keith Higgins, Traffic Engineer
Gilroy, CA 95020

June 20, 2017

TABLE OF CONTENTS

EXHIBITS

APPENDICES

1 INTRODUCTION

This traffic study analyzes the impacts associated with the development of the Riverview at Las Palmas Senior Assisted Living project in Monterey County. **Exhibit 1** shows the location of the proposed project. **Exhibit 2** shows the proposed site plan.

1.1 Project Description

The project is proposed to include 26 senior assisted living units (Casitas), which are expected to have a traffic generation rate similar to typical attached senior housing units. It is also proposed to include 52 beds of assisted care and 48 beds of memory care (similar to a nursing home).

The project is proposed to provide an opportunity for a continuum of care ranging from seniors with lesser needs through providing care for those needing substantial assistance.

1.2 Scope of Work

The study includes the evaluation of the following intersections and road segments:

Intersections:

1. Reservation Road / Highway 68 WB Ramps
2. River Road / Highway 68 EB Ramps
3. Las Palmas Road / River Road

Road Segments:

1. Highway 68 between San Benancio Road and Toro Park Interchange

The study intersections are shown in **Exhibit 3**. Beyond the limits of the study area, the project trips disperse onto various local streets and roads or onto regional facilities. The impact of trips that disperse on the local road network lessens as they move away from the project site. The local intersections included in the analysis were identified as potentially experiencing the greatest impact from the project.

Weekday AM and PM peak hour traffic operations were analyzed for the following conditions:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Cumulative Plus Project Conditions

1.3 Traffic Operation Evaluation Methodologies and Level of Service Standards

Intersection traffic operations were evaluated based on the Level of Service (LOS) concept, and the LOS standard adopted by Monterey County and Caltrans for each intersection. LOS is a qualitative description of an intersection's or road segment's operation, ranging from LOS A to LOS F. Level of service "A" represents free flow un-congested traffic conditions. Level of service "F" represents highly congested traffic conditions with what is commonly considered unacceptable delay to vehicles at intersections. The intermediate levels of service represent incremental levels of congestion and delay between these two extremes. All three study intersections are signalized. LOS descriptions for signalized intersections are included as **Appendix A**.

Intersection traffic operations were evaluated using the Synchro analysis software (Version 9) and *Highway Capacity Manual 2010 (HCM 2010)* methodologies for signalized intersections. Intersection operations are based on the average vehicular delay at the intersection. The average delay is then correlated to a level of service. When analyzing signalized intersections, the overall intersection delay is used to determine LOS.

The study area falls within the jurisdiction of two public agencies, Monterey County and Caltrans. Level of service standards and impact significance criteria adopted by each public agency have been used as appropriate.

For this study, the following level of service thresholds have been used:

1. The County of Monterey LOS "D" standard has been applied to intersections under the jurisdiction of the County of Monterey.

2. The Caltrans level of service standard is the LOS C/D threshold. The Caltrans LOS C/D standard has been applied to state-controlled intersections and road segments.

1.5 Criteria for Significant Project Impacts

According to the California Environmental Quality Act (CEQA) guidelines, a project may have a significant effect on the environment if it would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. In accordance with CEQA, specific impact criteria have been applied to the study intersections and road segments to determine if the project specific increase in traffic is substantial in relation to the existing traffic load and capacity of the street system.

The following significance criteria have been applied to the analysis results.

County of Monterey

A significant impact at a signalized study intersection is defined by Monterey County traffic impact study guidelines to occur under the following conditions:

- A significant impact would occur if an intersection operating at LOS A, B, C, or D degrades to E or F. For intersections already operating at unacceptable level E, a significant impact would occur if a project adds 0.01 or more during peak hours to the critical movement's volume-to-capacity ratio. If the intersection is already operating at LOS F, any increase (one vehicle) in the critical movement's volume-to-capacity ratio is considered significant.

Caltrans

Per the "Caltrans Guide for Preparation of Traffic Impact Studies" publication, "Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained." MOE refers to the measures of effectiveness which are used to describe the measures best suited for analyzing State highway facilities.

Caltrans perceives an impact when there is any degradation in the performance measure below the cusp of C/D. If a facility is currently operating at or below LOS D, then any trips added represent a potential impact, and the performance measure should be brought back to predevelopment conditions. While a single trip added to a degraded facility is not usually reflected in the performance measure, Caltrans reserves the ability to consider a single trip as an impact.

1.6 Funding for Transportation Improvements

TAMC Fee and Sales Tax Measure

The Transportation Agency for Monterey County (TAMC) and its member jurisdictions have adopted a county-wide, regional impact fee to cover the costs for studies and construction of many improvements throughout Monterey County. This impact fee, which went into effect on August 27, 2008, is applied to all new development within Monterey County. The governing document for the fee is the *Regional Impact Fee Nexus Study Update* (March 26, 2008) prepared by Kimley-Horn Associates, Inc. *The Regional Impact Fee Nexus Study Update* was updated again in 2013.

In November, 2016 Monterey County voters approved a 30 year, 3/8 cent sales tax measure to fund a broad range of transportation improvements. $50,000,000 has been earmarked for Highway 68 improvements. TAMC is currently conducting corridor studies to identify improvement options and to focus on options that will provide the most significant benefits to residents and the travelling public.

Monterey County Traffic Impact Fee

In August 2006, the City of Salinas and the County of Monterey entered into an agreement known as the Greater Salinas Area Memorandum of Understanding (MOU). As stated in a report dated August 29, 2006 to the Salinas City Council and the Monterey County Board of Supervisors, "The MOU establishes a broad policy framework to govern and facilitate land use decisions in the Greater Salinas Area. The MOU must be viewed in its entirety as it is intended to aid the community, the City, and the County in the mutual goal of achieving orderly, consistent, and reasoned land use determinations in the Greater Salinas Area recognizing the responsibilities of both the County and City to assure orderly development in their respective jurisdictions."

Item #9 in the MOU states "City and County agree to support fees and taxes needed to mitigate the collective impact of new and existing development on the regional transportation system to the extent that the fees and taxes reflect the overall financing program adopted by TAMC".

Item #10 in the MOU states that "City and County agree that the County will develop a County-wide Traffic Impact fee program for the improvement of major County roads in accordance with the County adopted General Plan." The County will consult with TAMC and Monterey County cities in the development of the County fee program. In order to prevent the need for an ad hoc traffic impact fee on developments within the City of Salinas, the County's traffic impact fee program will make the Greater Salinas Area a priority, and the County will attempt to complete a nexus study and hearing process within 18 months of adoption of the County General Plan.

The 2010 Monterey County General Plan, which was adopted October 26, 2010, provides policies to enact the policy framework provided by the MOU. Specifically, the General Plan includes the following policies:

C-1.8 Development proposed in cities and adjacent counties shall be carefully reviewed to assess the proposed development's impact on the County's circulation system. The County, in consultation with TAMC and Monterey County cities shall, within 18 months of adoption of the General Plan, develop a County Traffic Impact fee that addresses Tier 2 impacts of development in cities and unincorporated areas. From the time of adoption of the General Plan until the time of adoption of a County Traffic Impact Fee, the County shall impose an ad hoc fee on its applicants based upon a fair share traffic impact fee study.

C-1.9 All available public and private sources shall be used for the funding of road and highway development, improvement and maintenance.

C-1.10 The County, in coordination with TAMC and other affected agencies, shall continue efforts to improve traffic congestion at critical locations.

C-1.11 In addition to the County Traffic Impact Fee established in Policy C-1.8, the County shall require new development to pay a Regional Traffic Impact Fee developed collaboratively between TAMC, the County, and other local and state agencies to ensure a funding mechanism for regional transportation improvements mitigating Traffic Tier 3 impacts.

To date, a county-wide traffic fee program has yet to be adopted. Monterey County Public representatives recently stated that a draft fee program is complete and they hope to have the fee adopted in the Fall, 2017. However, the County has been assessing fees for the Countywide Traffic Impact fee on an ad hoc basis per the fee program's draft fee schedule.

2 EXISTING TRAFFIC CONDITIONS

This section describes the existing street network relevant to the proposed project and the existing operational traffic conditions.

2.1 Existing Roadway Network

The key roadways in the vicinity of the proposed project include Highway 68, Reservation Road and River Road. These facilities are described below:

Highway 68 (SR 68) connects State Route 1 in Monterey and US 101 in Salinas. It is a 2-lane rural highway with a speed limit of 55 mph between SR 1 and just south of the Portola Drive interchange. Highway 68 is a 4-lane freeway with 65 mph speed limit between the Portola Drive and Spreckels Boulevard interchanges. Highway 68 is a 4-lane divided highway with 55 mph speed limit from the Spreckels Boulevard interchange to Blanco Road in the City of Salinas. Once inside the City of Salinas, SR 68 becomes an arterial along South Main Street and John Street. It serves as a commuter route between Salinas and the Monterey Peninsula, and functions as a scenic tourist route to the Monterey Peninsula.

Reservation Road is a two-lane rural road that connects Highway 68 to the City of Marina. South of Highway 68, Reservation Road becomes **River Road**, which is a 4-lane road from the Highway 68 / Reservation Road interchange to Las Palmas Road. It narrows to 2 lanes just east of Las Palmas Road. The River Road/Las Palmas Road and River Road/Las Palmas Parkway intersections are signalized. River Road provides access to residential neighborhoods. The Highway 68 ramp intersections with Reservation Road and River Road are signalized.

2.2 Existing Conditions Intersection Operations

Weekday AM and PM peak hour turning movement counts at the study intersections were conducted in March and May 2017. The counts were reviewed and, where appropriate, balanced between intersections. The existing conditions peak hour traffic volumes are presented in **Exhibit 4**. Raw traffic count data is included in **Appendix B**.

Synchro 9 was utilized to evaluate existing conditions operational levels of service at the study intersections. The analysis was performed for the weekday AM and PM peak hours using Highway Capacity Manual 2010 (HCM 2010) methodologies.

All the study intersections operate at acceptable levels of service under existing conditions and no improvements are recommended. Intersection levels of service are summarized in **Exhibit 5**. LOS calculation worksheets are included as **Appendix C**.

2.3 Existing Conditions Road Segment Operations

According to the 2010 Monterey County General Plan Environmental Impact Report, River Road currently operateds in 2008 at LOS C (2008 Average Daily Traffic (ADT) of 14,810 and 2016 ADT of 14,100) between Highway 68 and Las Palmas Road and LOS D from las Las Palmas Road to Las Palmas Parkway (2008 ADT of 11,750 and 2016 ADT of 13,000), according to the 2010 Monterey County General Plan Environmental Impact Report. Daily traffic volumes in 2016 are essentially equivalent to 2008. Evening peak hour traffic volumes counted in 2017 for this study totaled 1,492 north of Las Palmas Road and 1,367 south of Las Palmas Road. Evening peak hour volumes generally represent about 10% of the daily total, so they are consistent with the 2016 daily volumes. River Road operates at an These are acceptable levels of service.

Highway 68 has been determined to currently operate at LOS F in the Monterey County 2010 General Plan. The Transportation Agency for Monterey County (TAMC), Caltrans and the County of Monterey are currently conducting a corridor study to investigate improvements to Highway 68, including roundabouts at currently signalized intersections. Measure X, the Transportation Safety & Investment Plan is a sales tax measure that was approved by Monterey County voters in November, 2016. This measure provides $50 million towards Highway 68 improvements for congestion relief and safety improvements. In addition, the TAMC regional development impact fee designates an additional $4 million toward these improvements.

2.4 Existing Transit Service

The primary public transit service in the County of Monterey is the bus service provided by Monterey-Salinas Transit (MST). MST focuses on improving operational conditions through established bus routes and schedules that efficiently meet travel demands, reduce travel times, improve service reliability, and encourage bike-and-ride initiatives. All MST buses are wheelchair accessible and equipped with bike racks. In the vicinity of the project, bus routes are provided along Highway 68. There are no MST bus routes provided along River Road.

2.5 Existing Bicycle Facilities

The County of Monterey has an adopted Bikeway Plan designating routes along roadways that can be used by bicycling commuters and recreational riders for safe access to major employers, shopping centers and schools. Three basic types of bicycle facilities are described below:

1. Bike path (Class I) - A completely separate right-of-way designed for the exclusive use of cyclists and pedestrians, with minimal crossings for motorists.
2. Bike lane (Class II) - A lane on a regular roadway, separated from the motorized vehicle right-of-way by paint striping, designated for the exclusive or semi-exclusive use of bicycles. Bike lanes allow one-way bike travel. Through travel by motor vehicles or pedestrians is prohibited, but crossing by pedestrians and motorists is permitted.

3. Bike route (Class III) - Provides shared use of the roadway with motorists, designated by signs or permanent markings.

Highway 68 and River Road are designated as Cross County Bike Routes on the 2016 Monterey County Bike Map. Both have shoulders that function as bike lanes.

3 PROJECT TRIP GENERATION, DISTRIBUTION, AND ASSIGNMENT

The procedures for generating and assigning project trips to the local road network are described in this section.

3.1 Project Trip Generation

The project is proposed to include 26 senior assisted living units (Casitas), which are expected to have a traffic generation rate similar to typical attached senior housing units. It is also proposed to include 52 beds of assisted care and 48 beds of memory care (for traffic generation purposes, similar to a nursing home). In total, the project is expected to generate about 363 daily trips with 22 during the morning peak hour and 33 during the evening peak hour. This assumes the project operates with peak hour trip generation characteristics similar to a standard project with this mix of senior living uses. The project trip generation estimate is summarized in **Exhibit 6**.

Exhibit 7 shows the proposed project shift staffing and hours. The project is expected to employ a total of about 92.5 staff members over a 24-hour period. The times of shift changes with corresponding employees is also tabulated on this exhibit. The shift changes that are most relevant to project traffic impacts are those that occur near the peak hour of the street and highway system.

As a means of reducing peak hour trip generation, the project proposes to have shift changes occur outside peak travel periods, that is, during the hours of 7am to 9am and 4pm to 6pm. Morning Shifts A and B, Day Shift B and the Evening and Night Shifts all will change outside the two-hour street peak periods. Day Shift A will be the only shift that begins and ends during the morning and evening peak hours, respectively.

Rescheduling the Day Shift A schedule to begin and end outside the street peak period would eliminate 12 inbound trips in the morning peak hour (from Day Shift A) and 12 outbound trips during the evening peak hour. This would result in a net total of 10 morning street peak hour trips and 21 evening street peak hour trips.

3.2 Project Trip Distribution and Assignment

The project's trip distribution based on existing traffic patterns in the study area is shown graphically in **Exhibit 8**. Project trip assignments at the study intersections are shown in **Exhibit 4**. The project will add about 1 morning peak hour trip and 4 evening peak hour trips to the two-lane section of Highway 68 immediately west of the Toro Park interchange. Project traffic will dissipate along the Highway 68 corridor at the many crossroads including Torero Drive, San Benancio Road, Corral de Tierra Road and Laureles Grade, resulting in less than one morning peak hour trip and about two evening peak hour trips west of Laureles Grade. Project traffic will be at or below one peak hour trip west of Highway 218.

4 EXISTING PLUS PROJECT TRAFFIC CONDITIONS

This section describes existing plus project conditions. Traffic related impacts associated with project development are discussed in this section.

4.1 Existing Plus Project Traffic Volumes

The project trip assignments in **Exhibit 4** were added to the existing traffic volumes to estimate existing plus project traffic volumes. Existing plus project traffic volumes for the AM and PM peak hours are also presented in **Exhibit 4**.

4.2 Existing Plus Project Conditions Intersection Operations

All of the study intersections are projected to operate at acceptable levels of service under existing plus project traffic conditions and no improvements are recommended. Intersection levels of service are summarized in **Exhibit 5**. LOS calculation worksheets are included as **Appendix C**. All project impacts at study intersections will be insignificant.

4.3 Existing Plus Project Conditions Road Segment Operations

The project will have no effect on the level of service of River Road between Highway 68 and Las Palmas Parkway.

Project traffic will have no effect on Highway 68 traffic operations. However, Highway 68 has been determined to currently operate at Level of Service F in the Monterey County General Plan. Monterey County and Caltrans consider the addition of a single peak hour trip to be a significant impact. Therefore, the project will have, as determined by Monterey County and Caltrans, a significant impact on the two-lane section of Highway 68 between Toro Park and Highway 218. However, the added trips are imperceptible and insignificant in proportion to the existing traffic volumes.

The project will pay a TAMC fee that will represent the project's fair share contribution toward Highway 68 improvements and improvements on other regional facilities.

With regard to neighborhood street impacts, the project site is located at the end of Woodridge Court. Woodridge Court connects to River Run Road, which connects to Las Palmas Road, which provides access to and from River Road. Woodridge Court, River Run Court are local streets. Las Palmas Road functions as a collector street, providing access to and from the project will add traffic to each of these streets. Las Palmas Road currently carries about 164 morning peak hour and 155 evening peak hour trips. Traffic counts conducted in November, 2013 indicated that Las Palmas Road between River Road and Winding Creek Road carries about 1,837 daily trips. Riverview Court daily traffic totaled 386, for a grand total of 2,223 for the 313 homes in Las Palmas 1. The daily trip generation rate is about 7.1 trips per day per home.

Las Palmas Road has no homes along its frontage. Four perpendicular parking stalls are currently located at the west leg of the Winding Creek Road intersection. Otherwise, there is no parking along this street. Two lane collector streets have a capacity of over 10,000 vehicles per day. It has a width of 40 feet, which corresponds to a secondary street in the Monterey County Standard Details, which has a very conservative threshold of carrying up to 3,000 vehicles per day. Level of Service C (LOS C) was the General Plan policy in effect at the time of the approval of the Las Palmas Specific Plan. This threshold therefore corresponds with LOS C.

Assuming this rate applies to all subareas within La Palmas 1, the daily trip totals for Las Palmas Road between Winding Creek Road and River Run Road is about 1,200. This is 60% below the LOS C capacity normally attributable to collector streets as well as the Monterey County threshold of 3,000 vehicles per day.

River Run Road carries about 950 vehicles per day between Las Palmas Road and Woodbridge Court. River Run Road is a local street. It has a width of 38 feet, which is about midway between a secondary street (40 feet width) with a LOS C threshold of 3,000 and a tertiary street (34 feet width) with a LOS C threshold of 1,000. This section of street could therefore be considered a hybrid with a LOS C threshold of 2,000 vehicles per day. Functionally, it currently provides the sole access to over 130 homes plus the Corey House and the remaining parcel that is the site of the proposed project (earmarked for approximately 40 homes in the original Las Palmas Specific Plan). River Run Road with the buildout of the project site under its original development proposal would be estimated to carry about 1,230 to 1,300 vehicles per day (35% below the LOS C threshold). On that basis, River Run Road will continue to operate at LOS A-B.

A final consideration for River Run Road is a comparison of anticipated traffic volumes with traffic volume thresholds used by nearby municipalities in neighborhood traffic management and traffic calming policies. Monterey County does not have a policy. The City of Salinas recently adopted the “City of Salinas Neighborhood Traffic Management Program,” November, 2008, that states on page 61 that, “If traffic volumes on residential streets are projected to be less than 1,500 vehicles per day (vpd), then no action is needed, nor will it be taken.” The “City of Seaside Traffic Calming Program”, 2011, states on page 7 that streets carrying more than 1,600 vehicles per day are eligible for traffic calming. Volumes under 1,600 vehicles per day are within a reasonable level for a residential street. Both the policies indicate that collector streets are not eligible for traffic calming. The anticipated volume of 1,313 on River Run Road is below the threshold for both policies and would be considered within an acceptable traffic volume for a local residential street.

Woodbridge Court currently does not serve any residences. It has a width of 28 feet, which is similar to a County Loop street. It carries occasional traffic primarily associated with the Corey House and maintenance vehicles. It will carry all of the project’s traffic,

which is expected to total about 363 vehicles per day. This street will carry volumes well within acceptable levels for residential streets.

The table below summarizes existing and existing plus project daily traffic volumes along the access route between the project site and River Road.

Street Name – Segment Limits	**Street Classification & LOS C Threshold**	**No. of Homes Along Frontage**	**Existing ADT and LOS**	**Project ADT**	**Existing Plus Project ADT/LOS**
Las Palmas Rd – River Rd to Winding Creek	Collector/Secondary – 3,000	0	2,223-A	363	2,586–A
Las Palmas Rd – Winding Creek to River Run	Collector/Secondary – 3,000	0	1,200–A	363	1,563–A
River Run Rd – Las Palmas to Woodbridge	Local/an average of Secondary and Tertiary - 2,000	2	950–A	363	1,313-A/B
Woodbridge Ct – River Run to Project	Tertiary - 300	0	0 (nil)–A	363	363–A

Two intersections exist along the project's access route to and from Highway 68.

1. The Las Palmas Road / River Run Road intersection is a T-intersection that is stop-controlled on the Las Palmas Road approach. Traffic volumes are well with an A level of service on both intersecting streets. No capacity or traffic control improvements are currently warranted. The project will add only incrementally to existing volumes. The Las Palmas Homeowners Association should consider adding stop signs on the River Run Road approaches, since these are the lower volume approaches. This would give equal right-of-way priority to the Las Palmas Road approach, which carries the highest volume of the three approaches.

2. The River Run Road / Woodbridge Court intersection has stop control on the River Run Road approach. This is the highest volume approach at the intersection. The Las Palmas Homeowners Association should consider adding stop control on the Woodbridge Court approach to control traffic exiting from the Project. All-way stop control should also be considered.

The above stop-sign additions are not required as mitigations because the project does not create an impact at these intersections. They are only recommendations that would provide more clarity regarding right-of-way prioritization.

5 CUMULATIVE PLUS PROJECT TRAFFIC CONDITIONS

This section describes the analysis and results for 2030 cumulative conditions.

5.1 2030 Cumulative Traffic Volume Forecasts

Future traffic growth projections for the study area were derived based on 2030 traffic volume projections within the Monterey County 2010 General Plan. A growth rate of 15% was applied to the existing traffic volumes to estimate 2030 cumulative traffic volumes. This is more conservative than the projections developed for Highway 68 in the *State Route 68 Scenic Highway Plan* being prepared by Kimley-Horn, which were based on the Fort Ord Reuse Authority (FORA) travel demand model that projected slightly less than 10% growth along the Highway 68 corridor between the years 2016 and 2035.

5.2 Cumulative Plus Project Conditions Traffic Volumes

The trips generated by the proposed project were added to the 2030 cumulative traffic volumes to obtain the cumulative plus project AM and PM peak hour traffic volumes shown in **Exhibit 4**.

5.3 Cumulative Plus Project Conditions Intersection Operations

Two study intersections are projected to operate at unacceptable levels of service under cumulative plus traffic conditions. Intersection levels of service are summarized in **Exhibit 5**. LOS calculation worksheets are included as **Appendix C**.

1. The Reservation Road / Highway 68 WB Ramp intersection is projected to operate at an unacceptable LOS D during the PM peak hour under cumulative plus project traffic conditions.

2. The River Road / Highway 68 EB Ramp intersection is projected to operate at an unacceptable LOS D during the AM peak hour under cumulative plus project traffic conditions.

5.4 Cumulative Plus Project Conditions Road Segment Operations

River Road is expected to continue to operate at LOS C between Highway 68 and Las Palmas Road and LOS D from Las Palmas Road to Las Palmas Parkway under 2030 Cumulative Conditions, according to the 2010 Monterey County General Plan Environmental Impact Report. These are acceptable levels of service.

As previously stated, Highway 68 has been determined to currently operate at LOS F in the Monterey County 2010 General Plan. The projected 10% increase in traffic volumes under cumulative conditions would exacerbate these conditions.

6 PROJECT IMPACTS AND MITIGATION MEASURES

6.1 Project Impacts and Mitigations

a. Project Impacts

All the study intersections are projected to operate at acceptable levels of service under existing plus project traffic conditions and no improvements are required.

Project traffic will have no effect on Highway 68 traffic operations. However, Highway 68 has been determined to currently operate at Level of Service F in the Monterey County General Plan. Monterey County and Caltrans consider the addition of a single peak hour trip to be a significant impact. Therefore, the project will have a significant impact on the two-lane section of Highway 68 between Toro Park and Highway 218. As discussed in the Existing Plus Project Conditions section of this report, TAMC, Caltrans and Monterey County have funding and are studying a variety of operational improvements along the corridor.

b. Project Mitigations

The project will pay regional traffic impact fees that will be able to be applied toward these improvements. Nevertheless, the project will not directly implementany improvements to offset its impacts. It will, therefore, have an unmitigated significant impact on Highway 68.

6.2 Cumulative Impacts and Mitigations

a. Cumulative Impacts

The following study facilities are projected to operate at unacceptable levels of service under cumulative plus traffic conditions.

1. The Reservation Road / Highway 68 WB Ramp intersection is projected to operate at an unacceptable LOS D during the PM peak hour.

2. The River Road / Highway 68 EB Ramp intersection is projected to operate at an unacceptable LOS D during the AM peak hour.

3. Highway 68 is projected to operate at LOS F under cumulative traffic conditions.

The proposed project will contribute to incremental increases in traffic volumes at these locations and will therefore contribute to a significant cumulative impact. The project will add only incrementally to this cumulative impact and should pay a proportionate share of the cost of mitigation.

6.2 Cumulative Mitigations

1. The following improvements would result in acceptable levels of service at the study intersections Impacts 1 and 2). These options both appear to be feasible. They will require Monterey County and Caltrans to evaluate the pros and cons of each alternative.

   Mitigation Option 1: Add a dedicated southbound right-turn lane at the Reservation Road / Highway 68 WB Ramps intersection and a second southbound left-turn lane at the River Road / Highway 68 EB Ramps intersection, or;
   Mitigation Option 2: Convert the Reservation Road / Highway 68 WB Ramps and River Road / Highway 68 EB Ramps intersections to roundabouts. A roundabout appears to be able to be implemented with no physical constrains at the EB Ramp intersection. However, the WB Ramp intersection would require right-of-way acquisition and construction that would be very close to existing office buildings on the northeast and northwest corners of the intersection. Special attention to this issue would need to be made when evaluating the feasibility of this alternative.

2. TAMC, Caltrans and Monterey County are evaluating operational improvements to Highway 68 as described in “Section 2.3 Existing Conditions Road Segment Operations,” of this report. The project will pay TAMC Regional Development Fees, which will represent its fair-share contribution to this improvement.

3. The project will be required to pay TAMC and County of Monterey traffic impact fees, which will mitigate its share of cumulative impacts.

APPENDIX E

CAL WATER CAN AND WILL SERVE LETTER

CALIFORNIA WATER SERVICE
Salinas District 254 Commission Street, Salinas, CA 93901-3737
Tel: (831) 757-3644

August 27, 2015

Dale Ellis
Anthony Lombardo & Associates
144 West Gabilan Street
Salinas, CA 93901

Will Serve Letter
Tract or Parcel Map No: Riverview at Las Palmas
Developer: *Anthony Lombardo & Associates*

Dear Mr. Ellis:

California Water Service Company Salinas district ("Cal Water") has determined that water is available to serve the above-referenced project based on the information provided. Cal Water agrees to operate the water system and provide service in accordance with the rules and regulations of the California Public Utilities Commission (CPUC) and the company's approved tariffs on file with the CPUC. This determination of water availability shall remain valid for **two years** from the date of this letter. If construction of the project has not commenced within this **two year** time frame, Cal Water will be under no further obligation to serve the project unless the developer receives an updated letter from Cal Water reconfirming water availability. Additionally, Cal Water reserves the right to rescind this letter at any time in the event its water supply is severely reduced by legislative, regulatory or environmental actions.

Cal Water will provide such potable water at such pressure as may be available from time to time as a result of its normal operations per the company's tariffs on file with the CPUC. Installation of facilities through developer funding shall be made in accordance with the current rules and regulations of the CPUC including, among others, Tariff Rules 15 and 16 and General Order 103-A. In order for us to provide adequate water for domestic use as well as fire service protection, it may be necessary for the developer to fund the cost of special facilities, such as but not limited to booster pumps and storage tanks, in addition to the cost of mains and services. Cal Water will provide more specific information regarding special facilities and fees after you provide us with your improvement plans, fire department requirements, and engineering fees for this project.

This letter shall at all times be subject to such changes or modifications by the CPUC as said Commission may, from time to time, require in the exercise of its jurisdiction.

If you have any questions regarding the above, please call me at (831) 757-3644.

Sincerely,

Mike Jones
District Manager

cc: Ting He – Cal Water Engineering Dept
File

APPENDIX F

LANDSET GEOTECHNICAL REPORT

LANDSET ENGINEERS, INC.

ENGINEERING - LAND PLANNING
SURVEYING - ENVIRONMENTAL CONSULTING

GEOLOGIC HAZARDS REPORT
AND
SOIL ENGINEERING FEASIBILTY INVESTIGATION
FOR
RIVER VIEW AT LAS PALMAS
(APN 139-211-035)
END OF WOODRIDGE COURT
MONTEREY COUNTY, CALIFORNIA

PROJECT 1272-01

Prepared for

RIVER VIEW AT LAS PALMAS, LLC
C/O ANTHONY LOMBARDO & ASSOCIATES
450 LINCOLN AVENUE
SALINAS, CALIFORNIA 93901

Prepared by

LANDSET ENGINEERS, INC.
520B CRAZY HORSE CANYON ROAD
SALINAS, CALIFORNIA 93907
(831) 443-6970

MARCH 2014

LANDSET
ENGINEERS, INC.
ENGINEERING - LAND PLANNING
SURVEYING - ENVIRONMENTAL CONSULTING

March 7, 2014 File No.: 1272-01

Mr. Garrett Shingu
River View at Las Palmas, LLC
c/o Anthony Lombardo & Associates
450 Lincoln Avenue, Suite 101
Salinas, California 93901

Attention: Mr. Dale Ellis

SUBJECT: **GEOLOGIC HAZARDS REPORT & SOILS ENGINEERING FEASIBILITY INVESTIGTION**
River View at Las Palmas (APN 139-211-035)
End of Woodridge Court
Las Palmas Ranch Area, Monterey County

Dear Mr. Shingu:
In accordance with your authorization, Landset Engineers, Inc. has completed a geologic hazards report and soil-engineering feasibility investigation for the proposed River View at Las Palmas senior housing development located at the end of Woodridge Court in the Las Palmas Ranch area, Monterey County, California. This report presents the results of our field investigation, laboratory testing, along with our preliminary conclusions and recommendations for site development.

It is our opinion that the proposed development is feasible from a geologic and soil engineering standpoint. The recommendations included in this report are preliminary and contingent upon further design development. *It is recommended that an additional design level soil engineering investigation should be performed once preliminary development plans have been completed and locations & types of structures, and anticipated loads are known.* The conclusions and recommendations included herein are based upon applicable standards at the time this report was prepared.

It has been a pleasure to be of service to you on this project. If you have any questions regarding the attached report, please contact the undersigned at (831) 443-6970.

Respectfully submitted,
LandSet Engineers, Inc.

PROFESSIONAL GEOLOGIST
BRIAN E. PAPURELLO
No. CEG 2226
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Brian E. Papurello
CEG 2226

REGISTERED PROFESSIONAL ENGINEER
GUY R. GIRAUDO
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EXP. 6/30/15
CIVIL
STATE OF CALIFORNIA

3/7/14

Guy R. Giraudo
RCE 56569

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Doc. No.: 1403-100.RPT

520-B Crazy Horse Canyon Road, Salinas, CA 93907 • (831) 443-6970 • Fax (831) 443-3801

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INTRODUCTION

This report summarizes the findings, conclusions, and recommendations for our geologic hazards report and soil engineering feasibility investigation for the River View at Las Palmas senior housing development (hereafter referred to as the site) located at the end of Woodridge Court in the Las Palmas Ranch area, Monterey County, California (see Vicinity Map, Figure 1).

PURPOSE AND SCOPE OF SERVICES

Geologic Hazards Report. This report addresses the feasibility of the development for the site from a geologic viewpoint, with emphasis on the potential for geologic and seismic-related hazards. Our studies included the following:

A. Research, review, and evaluation of data from relevant reports and maps.

B. Examination and interpretation of four sets of stereo aerial photographs of the area.

C. Geological site reconnaissance.

D. Geologic mapping of the subject property based on our site reconnaissance and review of aerial photographs and maps.

E. Development of a site geologic map and geologic cross-sections

F. Analysis of the data generated from by a certified engineering geologist and preparation of a written report in accordance with the California Geological Survey guidelines. The report addresses the following:

- *Site geology*
- *Faulting*
- *Liquefaction Potential*
- *Landsliding & Slope Stability*
- *Ground Shaking*
- *Erosion*
- *Geologically Suitable Building Envelope*

Soils Engineering Feasibility Investigation. The soil engineering feasibility investigation has been prepared to explore surface and subsurface soil and groundwater conditions at the site, and provide preliminary soil-engineering criteria for design and construction of the project.

The conclusions and recommendations of this report are intended to comply with Chapter 18 of the California Building Code (CBC) 2013 edition as modified by standard soil engineering practice in this area. Our scope of services included:

1. A visual site reconnaissance.
2. Exploration, sampling and classification of the surface and subsurface soils by means of excavating 13 exploratory test pits to depths ranging from 3.0 to 12.5 feet below the ground surface.
3. Laboratory testing of selected soil samples collected from the exploratory test pits and to determine their pertinent engineering and index properties.
4. Engineering analysis of the information collected based on the results of the field exploration; laboratory testing program and review of published and unpublished studies in the general area of the site.
5. Preparation of this report summarizing our preliminary findings and soil engineering conclusions and recommendations for site preparations, grading and compaction, foundations, retaining walls, utility trenches, slabs-on-grade, general site drainage, and erosion control.

SITE DESCRIPTION AND PROPOSED DEVELOPMENT

The center of the site is located at approximate 36.6205° N latitude, 121.6739° W longitude in the northwest quarter of the northeast quadrant of the Spreckels 7.5 minute quadrangle, Monterey County, California. The site is unsectionized and remains part of the Buena Vista Mexican Land Grant. Surrounding land uses are residential and agricultural (Figure 1, Vicinity Map).

The site (APN 139-211-035) consists of an approximate 15.67-acre irregular shaped parcel located at the end of Woodridge Court in the Las Palmas Ranch area of Monterey County, California. Ingress/egress to the site is from and unpaved road located at the end of Woodridge Court (Sheet 1). Topographically, the site is situated on a northeast-southwest trending ridge,

bounded by moderate to very steep descending slopes (Figure1). The northeasterly two-thirds of the site is situated on a relatively flat uplifted fluvial terrace with slope gradients ranging from ~5% to 10% (Sheet 1). The terrace area is bounded by steep to very steep northerly, southerly and easterly facing descending slopes with gradients ranging from 50% to 70%. The southwesterly one-third of the site consists of a hilly upland area with 15% to 25% slopes. Overall topographic relief in the proposed development area is about 150 feet (Sheet 1). The site is bounded by agricultural ranch lands to the north, east & west and the Las Palmas Ranch residential development to the south. Vegetative cover consists of a dense eucalyptus grove with scattered cypress trees on the terrace and upland areas. The northerly slopes are covered with a dense oak forest, while the southerly slopes are covered with scattered trees, brush and grasses. Drainage of the site is generally southwest to northeast via sheet flow.

As previously noted, access to the site is from an existing graded dirt driveway off of Woodridge Court at the southeasterly corner of the site (Sheet 1). Other existing site improvements consist of the following: storm drain inlet pipe and electrical vaults at the southeasterly property corner; two cribwall type retaining walls near the westerly end of the access drive; and a reclaimed water irrigation distribution system for the flat northeasterly two-thirds of the site. No records were available for our review such as plans, permits, etc. with respect to the construction of these improvements. Three landslide stabilization walls are located on the steep southeasterly descending slope located near the southwesterly corner of the site. These walls were constructed in the early to mid-1990's in response to the reactivation of an existing landslide (Qls, Sheet 1) located in this area.

During our site reconnaissance and field exploration we also noted that the site has been modified by other past grading activities. Areas of undocumented fill (designated as Af, Sheet 1) were noted to occur on the site. The most notable is a significant trash fill pit located in the south central portion of the site (TP-5, Figure A3 & TP-13, Figure A4). The materials consisted of substantial quantities of decomposing tree branches and limbs extending to a depth of 10.5 feet below the ground surface. It also appears that the most southerly limits of the flat terrace area has

been bermed in order to limit the potential of site surface drainage from freely flowing over the steep southeasterly descending slopes adjacent to the Las Palmas ranch residential development.

Proposed future site development will consist of a new senior housing residential development composed of 26 independent living units, 24 assisted living apartments, 48 high level assisted living units and a 24 bed memory care facility. Additional development will consist of new vehicular drives and parking along with associated underground utility infrastructure improvements.

FIELD EXPLORATION

The site was mapped in the field on January 31 and February 25, 2014 on a base topographic map at a scale of 1:600. Additional mapping was done on aerial photographs at an approximate scale of 1:12,000. The field and aerial photograph mapping was then compiled on a topographic base map of 1:600 approximate scale (Site Geologic Map and Cross Sections, Sheets 1 & 2).

As part of our soil engineering feasibility investigation, 13 exploratory test pits were excavated on January 31, 2014 at the approximate locations shown on the Site Geologic Map, Sheet 1. The test pits were excavated with a rubber tired backhoe, equipped with a 24-inch wide bucket. The exploratory test pits were excavated to depths ranging from 3.0 to 12.5-feet below the ground surface. A Certified Engineering Geologist logged the exploratory test pits in the field. Upon completion of trenching, the test pits were backfilled with the previously excavated trench spoils.

Soils encountered in the exploratory test pits were visually classified in the field and logs were recorded. Visual classifications were made in general accordance with the Unified Soil Classification System and ASTM D2487. Logs of the exploratory test pits can be found in Appendix A (Figures A3 & A4). Appendix A also contains a Key to the Unified Soil Classification System and Soil Terminology (Figures A1 and A2).

LABORATORY TESTING

Laboratory tests were performed to determine the physical and engineering characteristics on selected soil samples of the various soil materials encountered in the exploratory test pits considered pertinent to the design of the project. The tests performed were selected on the basis of the probable design requirements as correlated to the site subsurface profile. A summary of the laboratory test results is presented in Appendix B. A brief generalized description of the tests performed is as follows.

- Moisture-Density Determinations: This test was conducted to measure the in-situ moisture contents and dry unit weights. Moisture/density testing was performed in accordance with ASTM D 2922 and ASTM D 3017, Nuclear Test Method. The test results are used to assess the distribution of subsurface pressures and to calculate degrees of in-situ relative compaction.

- Atterberg Limits: This test was performed on a disturbed bulk samples, to determine their liquid limit and plastic limit index values. This test provides water content values for the sample's liquid and plastic phases. This test aids in determining the expansive potential and other engineering characteristics of the soil.

- Grain Size Distribution (Gradation) Analysis: The grain size distribution is used to determine the classification of the site soils. This information is used for foundation design analysis.

- Compaction Curve (ASTM D 1557-91): This test is used to determine the maximum dry density and optimum moisture content based upon a standard compactive effort. When compared to the insitu moistures and densities, degrees of relative compaction can be obtained.

REGIONAL GEOLOGY

The site is situated on the south side of the Salinas River, at the northern terminus of the Sierra de Salinas within the Coast Ranges Geomorphic Province of California (Figure 2, Regional Geologic Map). The Coast Ranges Geomorphic Province consists of a series of mountain ranges paralleling the northwest-southeast structural orientation of the San Andreas fault, San Gregorio-Palo Colorado fault, Rinconada-Reliz fault and other faults within the central coast of California (Figure 5, Regional Fault and Seismicity Map). These faults are characterized by a combination of strike-slip and reverse displacement and show horizontal displacements from tens to hundreds of miles. Several periods of continuous and semi-continuous strike-slip or "transform" movement throughout the late Cenozoic Era has occurred on the San Andreas and related fault systems causing compressional uplift of the mountains of the Coast Ranges Geomorphic Province. The region continues to be characterized by moderate to high rates of seismic and tectonic activity (Figure 5).

The site is located on the southwest side of the San Andreas fault. The San Andreas fault forms the boundary between the North American and Pacific Plates. The southwest side of the San Andreas fault is underlain by Cretaceous age Salinian Block granitic rocks with older Sur Series metamorphic rocks that occur as roof pendants (Allen, 1946 & Dibblee, 1974). These roof pendants predominantly consist of marble and dolomite (Compton, 1966). Overlying the granitic rocks of the Salinian Block is a series of folded and faulted Tertiary age sedimentary and volcanic rocks (Dibblee, 1974).

During early to late Quaternary times, extensive continental, marine terrace, eolian, and fluvial sediments were deposited (Dupre' 1990, Clark Brabb & Rosenberg 2000). These sediments unconformably overlie all older formations with which they are in contact. Holocene activity has consisted of continued tectonic uplift, down cutting and deposition of the local area streams, mass wasting of upland areas by landslides and erosion, and fault creep along the San Andreas and related fault systems. The geology of the site and vicinity is depicted on the Geologic Vicinity Map, Figure 3.

REGIONAL FAULTING AND SEISMICITY

The closest Class A faults that would most likely effect the site are the San Andreas, Rinconda-Reliz, Monterey Bay, Zayante-Vergeles and San Gregorio faults (Figure 5). These faults have shown evidence for late Quaternary movement. Distance from the site, slip rate, and maximum magnitude for these faults is given in Table 1.

Table 1
Local and Regional Faults

Fault Name	Distance From Site	Maximum Magnitude	Slip Rate mm/year
San Andreas	**26.5-km Northeast**	**7.9**	**>5.0**
Rinconada-Reliz	**300 feet Northeast**	**7.3**	**0.2 – 1.0**
Monterey Bay	**14-km Southwest**	**6.8**	**1.0 – 5.0**
Zayante-Vergeles	**23-km Northeast**	**6.8**	**0.2 -1.0**
San Gregorio	**30-km Southwest**	**7.0**	**1.0 – 5.0**

San Andreas Fault

The San Andreas fault is located about 26.5 km. northeast of the site and is the major seismic hazard in northern California. The San Andreas fault is a major right-lateral strike-slip fault that generally delineates the transform plate boundary between the North American and Pacific Plates. Trending to the northwest southeast, the San Andreas fault is nearly vertical as evidenced by the relatively straight outcrop pattern across topography of noticeable relief. Historic earthquakes on the San Andreas fault have caused extensive damage and very strong ground shaking in Monterey County. The 1906 (M_w~8.0) "San Francisco earthquake" ruptured a portion of the active San Andreas fault from approximately San Juan Bautista to Cape Mendocino, causing severe damage in parts of the Monterey-San Francisco Bay area. The earthquake occurred on April 18, 1906 and caused severe ground shaking and structural damage to buildings in Monterey, Santa Cruz and San Benito Counties (Lawson, 1908). The 1989 (M_w 7.1) Loma Prieta earthquake also caused significant damage in the cities of Salinas, Santa Cruz, Watsonville, and Hollister (McCann, 1990).

The San Andreas fault has been divided into several different segments that are characterized by varying slip rates, earthquake intensities, and earthquake recurrence intervals (Bryant and Lundberg, 2002). Located about 26.5 km. northeast of the site, the San Andreas fault can expect a (M6.8) earthquake with an unknown recurrence interval (Petersen et al, 1996). Stronger earthquakes could be experienced at the site similar to the 1906 event with a maximum magnitude of (M7.9) with a recurrence interval of 210 years (Petersen et al, 1996).

Rinconada-Reliz Fault

The Rinconada-Reliz fault is primarily a right lateral strike slip and reverse fault zone (Petersen et al, 1996) with a vertical component having elevated the southwest block to form the Sierra de Salinas uplift (Dibblee, 1976). The Reliz fault zone, Blanco section is located about 300 feet northeast of the site (Rosenberg & Bryant, 286a & 286b, 2003, Rosenberg & Clark, 2009). The Rinconada-Reliz fault is a major structural feature along which granitic rocks of the Sierra de Salinas were uplifted to form the western border of the Salinas Valley (Greene et al, 1973) with movement beginning during early Cenozoic time and has remained active to late Quaternary (Rosenberg & Bryant, 286a & 286b, 2003). Vertical displacement in the Sierra de Salinas may be as much as 10,000 feet (Dibblee, 1976). Slip rate for the Rinconada fault is estimated at 0.2 to 1.0mm/yr. Maximum magnitude is expected to be (M7.3) with a recurrence interval of 1,764 years (Petersen et al, 1996).

Monterey Bay-Tularcitos Fault

Located about 14-km southwest of the site, the Monterey Bay-Tularcitos fault zone is a complex series of northwest trending reverse, right lateral, and oblique faults which include the Tularcitos, Chupines, and Navy faults (Bryant 62b & 62c, 2001). The Monterey Bay-Tularcitos fault zone lies within a fault bounded wedge of granitic basement rocks belonging to the Salinian block and is bounded on the west by the San Gregorio fault and on the east by the San Andreas fault (McKittrick, 1987). The Monterey Bay-Tularcitos fault is 84 km. long (Petersen et al, 1996) and extends from Paloma Creek in upper Carmel Valley (Clark et al, 1997) to the offshore environment within the Monterey Bay. Post Miocene vertical displacement of the Tularcitos fault

is about 380 m and 3.2km to as much as 16 km of right lateral displacement (Clark et al, 1997). Offsets of Holocene age colluvial and fluvial terrace deposits indicates that the Tularcitos fault is active (Clark et al, 1997). The Monterey Bay fault is the offshore extension of the Tularcitos fault and comprises a discontinuous series of en echelon faults in the inner Monterey Bay between Monterey and Santa Cruz (Greene et al, 1973). The Monterey Bay fault zone displaces late Tertiary and Pleistocene sediments and in a few locations appears to cut Holocene sediments (Greene et al, 1973). Slip rate for the Monterey Bay-Tularcitos fault is estimated at 0.5mm/yr. Maximum magnitude is expected to be (M7.1) with a recurrence interval of 2,841 years (Petersen et al, 1996).

Zayante-Vergeles Fault

The Zayante-Vergeles fault is located about 23-km northeast of the site (Coppersmith, 1979). The Zayante-Vergeles fault is a right-lateral reverse fault (Petersen et al, 1996) dipping steeply to the south (70°-80°) with a minimum vertical displacement of 3,500 feet (Allen, 1946). No Tertiary sediments are found on the uplifted Salinian Block granite south of the fault, as they have been completely eroded. Two branches of the Vergeles fault break of the main fault trace at low angles to form "splinters", which duplicates portions of the Miocene rock record (Allen, 1946). Initial movement on this fault probably began in the middle Miocene corresponding with the deposition of the Zayante Sandstone. Movement on this fault was probably sporadic through late Pliocene (Allen, 1946). More recent studies suggest that the Zayante fault (the western extension of the Vergeles fault) has at least 10-17 meters of vertical displacement in the last 500,000 years (Coppersmith, 1979). Slip rate for the Zayante-Vergeles fault is estimated at 0.2 to 1.0mm/yr. (Bryant, 2000). Maximum magnitude is expected to be (M6.8) with a recurrence interval of 8,821 years (Petersen et al, 1996).

San Gregorio Fault

Like the San Andreas fault, the San Gregorio fault has been divided into several different segments that are characterized by varying slip rates, earthquake intensities, and earthquake recurrence intervals. Located about 44 km southwest of the site, the San Gregorio (Sur region) is

a northwest trending right lateral strike slip fault about 80 km long (Petersen et al, 1996). The San Gregorio fault is part of the San Andreas fault system and is expressed as a complex series of en echelon right lateral strike slip faults (San Gregorio, Palo Colorado, San Simeon, & Hosgri faults) in the offshore and near shore environments. The San Gregorio and related faults are several hundred kilometers long extending from the Santa Barbara Channel in the south, to its juncture with the San Andreas fault near Bolinas Bay in the north. Strong evidence supports that the San Gregorio fault (Sur region) has been active during Holocene time (Greene et al, 1973). Slip rate for the San Gregorio fault (Sur region) is estimated at >5.0mm/yr. (Bryant and Cluett, 1999). Maximum magnitude is expected to be (M7.0) with a recurrence interval of 411 years (Petersen et al, 1996).

SITE GEOLOGY

Previous published & unpublished mapping of the site and its vicinity has been performed by Dibblee, 1974; Dupre', 1990 and Clark, Brabb & Rosenberg, 2000. Dibblee, 1974 mapped the site at a scale of 1:62,500, and as being underlain entirely by Quaternary older alluvium. Mapping performed by Dibblee did not indicate the presence of faults or landslides to occur on the site.

More recent mapping of the site and vicinity was performed by Dupre', 1990 at a scale of 1:24,000. This mapping concentrates on Quaternary geology and liquefaction potential. Dupre' has mapped the northeasterly portion of site as being underlain by Pleistocene age fluvial terrace deposits. The upland southwesterly portion of the site has been mapped as Plio?-Pleistocene age Non-marine continental deposits. Dupre' also maps a landslide in the area of the southwesterly corner of the site. No faults were noted to occur, or were mapped on the site.

Clark, Brabb & Rosenberg, 2000 have performed the most recent and detailed published geologic mapping of the site and vicinity at a scale of 1:24,000 (Figure 3). Clark, Brabb and Rosenberg map the flatter northeasterly portion of the site as being underlain by a veneer of Pleistocene age fluvial terrace deposits, which are underlain by Plio?-Pleistocene age continental deposits. The

southwesterly upland portion of the site has been mapped as Plio?-Pleistocene age continental deposits dipping to the northeast. Review of this most recent mapping indicates the presence of a large landslide located in the southwesterly portion of the site that extends offsite to the south. No faults were mapped on the site.

Geology for this report was mapped in the field on January 31 and February 25, 2014. Field mapping was done on aerial photographs at an approximate scale of 1:12,000, and on a base topographic map at a scale of 1:600. The field mapping work was then compiled on a topographic base map of 1:600 scale (Site Geologic Map & Cross Sections, Sheets 1 & 2). As part of our geologic mapping we examined and interpreted of four sets of stereo aerial photographs of the area taken in 1956, 1978 & 1994 of the site and its vicinity. These photographs were scrutinized for site geology, terrain features characteristic of active fault zones, and for landsliding features. Based on the above referenced techniques and our exploratory trenching program, it is our opinion that the geology as mapped by Clark, Brabb & Rosenberg, 2000 is reasonably accurate. Description of the site geology is as follows, refer to Site Geologic Map and Geologic Cross Sections (Sheets 1 & 2) located in the map pocket at the back of this report for the location and distribution of these units.

(Af) Artificial Fill (Holocene): As previously noted in this report, man-made deposits of fill and trash fill are located on the site. The most significant of the features is located in the south central portion of the site in the areas of exploratory test pits TP-5 & TP-13. The materials encountered consist of substantial quantities of decomposing tree branches and limbs extending to a depth of 10.5 feet below the ground surface. *Areas of undocumented fill must be remediated prior to building development and foundation construction.*

(Qc) Colluvium (Holocene): Colluvial deposits have been mapped on the steep southerly slopes of the site adjacent to the Las Palmas Ranch residential development. These Holocene age deposits consist of unconsolidated silt, sand and gravel eroded off of the upland areas deposited by slope wash and mass movement.

(Qls) Landslide deposits (Quaternary): Evidence for landsliding was found to flank both sides of the ridge that trends northeast-southwest through the property. The landslides consist of heterogeneous deposits ranging from block slides to earthflows in weakly to semi-consolidated sand and clay.

(Qt) Terrace deposits (Pleistocene): The northeasterly two-thirds of the site has been mapped as Pleistocene age terrace deposits. These sediments consist of weakly consolidated silt, sand and gravel deposited in a fluvial (river) environment.

(Qtc) Continental deposits (Pleistocene-Pliocene (?)): The surface of the upland areas in the southwesterly one-third of the site have been mapped as Pleistocene-Pliocene (?) age continental deposits which are in conformable contact with the younger overlying terrace deposits. These sediments were also noted to crop out on the steep slopes on the southerly flank of the site. The continental deposits consist of nonmarine consolidated fine to coarse grained sand with pebble and cobble/gravel interbeds.

Site Geologic Structure and Faulting

Bedding inclinations near the site indicate that the Continental deposits are dipping 30 to 35° to the northeast (Clark, Brabb, & Rosenberg, 2000). No structural axis (anticlinal or synclinal) has been mapped underlying site.

The closest Class A fault to the site is the Blanco section of the Reliz fault located approximately 300 feet northeast of the site (Rosenberg & Bryant, 2003, Rosenberg & Clark, 2009). Though the site is not located within an Earthquake Fault Zone as established by the State of California, the Rinconada-Reliz fault has displayed late Pleistocene and probable early Holocene displacement to be classified as significant seismic hazard.

Other faults in proximity to the site are the Las Palmas and Harper faults (Figure 3) which are classified as Class B faults by the U.S. Geological Survey Geologic Survey. Class B faults demonstrate the existence of Quaternary deformation, but either (1) the fault might not extend

deeply enough to be a potential source of significant earthquakes, or (2) the currently available geologic evidence is too strong to confidently assign the feature to Class C but not strong enough to assign it to Class A. These faults have not displayed substantial rates of displacement to be classified as significant seismic hazards. However, based on evidence of late Quaternary activity and proximity to the site a discussion of these faults is as follows.

Las Palmas Fault

Located about 2.1-km. southeast of the site, the Las Palmas fault strikes northwest along the foothills south of the Salinas River. Its mapped trace is marked by aligned springs, local offset of Pleistocene-Pliocene(?) continental deposits and a pronounced gravity gradient (Clark, Brabb & Rosenberg, 2000, Rosenberg & Clark, 2009). The parallel orientation and sense of displacement suggest that the Las Palmas fault is probably a branch of the Reliz fault zone (Rosenberg & Clark, 2009). The offset of the continental deposits support the conclusion that a continuous zone of faulting younger than 250-550 ka cannot be demonstrated (Rosenberg & Clark, (2009).

Harper Fault

Located about 1.0-km. west of the site, the Harper fault is a north striking reverse fault that juxtapose Cretaceous age granitic rocks against Pliocene(?)-Pleistocene age continental deposits. Although the Harper fault locally truncates the continental deposits, there is no documented evidence of Holocene activity along this fault.

Landsliding

Evidence for landsliding was found to flank both the northerly and southerly sides of the site. As previously mentioned, Dupre', 1990 and Clark, Brabb & Rosenberg, 2000 (Figure 3) have mapped a large landslide several acres in area on the steep slopes at southwesterly corner of the site extending offsite to the south. During the course of this investigation we confirmed the presence of this large block slide type failure as depicted on Sheet 1. In response to the reactivation of this slide in early to mid-1990's, three landslide stabilization walls were constructed to stabilize the slope and limit the potential impact to the adjacent downslope residences within the Las Palmas Ranch subdivision. On the northerly flank of the site, several smaller earthflow and surficial type of failures have been mapped (Sheet 1).

SUBSURFACE CONDITIONS

As part of the soil engineering feasibility investigation 13 exploratory test pits were excavated in proposed development area. Subsurface constituents were similar to the depths explored in each of the exploratory test pits. The earth materials encountered consisted of Pleistocene age fluvial terrace deposits and Plio(?)-Pleistocene age continental deposits. These materials consist of loose to very dense, silty SAND, well graded SAND and lesser amounts of clayey SAND. One notable exception was the discovery of a significant trash fill pit located in the south central portion of the site (TP-5, Figure A3 & TP-13, Figure A4). The materials consisted of substantial quantities of decomposing tree branches and limbs extending to a depth of 10.5 feet below the ground surface.

GROUNDWATER

Groundwater was not encountered in any of the exploratory test pits. No active springs were noted to occur on the site. Local groundwater levels can fluctuate over time depending on but not limited to factors such as seasonal rainfall, site elevation, groundwater withdrawal, and construction activities at neighboring sites. The influence of these time dependent factors could not be assessed at the time of our investigation.

CONCLUSIONS

Seismic Hazards The site is located in the seismically active Monterey Bay region of the Coast Ranges Geomorphic Province. The site is not located within any Earthquake Fault Zones in accordance with the Alquist-Priolo Earthquake Fault Zoning Act (formerly Alquist-Priolo Special Studies Zone Act) of 1972 (Hart and Bryant, 1997).

Surface Fault Rupture: The Blanco section of the Reliz fault is located approximately 300 feet east of the site (Rosenberg & Bryant, 2003). The Reliz fault has displayed late Quaternary displacement, but it is not located on the subject site, therefore potential for surface rupture to occur on the site is low.

Historical Earthquakes: During recent historic times moderate to large earthquakes have caused significant damage to man-made structures in the greater Monterey Bay area. These include the following:

1857 San Andreas Fault: A large quake occurred on the San Andreas fault, rupturing from Parkfield south to Wrightwood, on January 9, 1857. The quake had an estimated magnitude of 7.8. Very severe shocks were felt in Sacramento and a cabin was knocked down in the Cholame area (Rosenberg, 2001).

1881 Parkfield: On February 2, 1881 a 5.6 magnitude quake occurred in the Parkfield area knocking down several adobe structures and chimneys. Springs and cracks were also noted in the area of the quake (Rosenberg, 2001).

1901 Parkfield: A magnitude 5.8 struck the Parkfield area on March 2, 1901. Again many chimneys were damaged and cracks in the ground were noted. A small tsunami also occurred in the Monterey Bay. (Rosenberg, 2001)

1906 California: The 1906 (M_w~8.0) "San Francisco earthquake", which ruptured a portion of the active San Andreas fault from approximately San Juan Bautista to Cape Mendocino, caused severe damage in parts of the Monterey-San Francisco Bay area and throughout California. The earthquake occurred on April 18, 1906 and caused severe ground shaking, ground settlement, liquefaction, and structural damage to buildings in Monterey, Santa Cruz, and San Benito Counties (Lawson, 1908). The most significant earthquake effects in the area of the site and vicinity were the sinking of the Salinas River bed in the areas of Spreckels, King City and San Ardo. (Rosenberg, 2001). Ground water flow changes were also common. At Paraiso Springs the temperature and flow of water had been decreasing for "some time" before the quake (Lawson,

1908). After the quake the temperature and flow of the springs returned to its previous values (Lawson, 1908).

1922 Parkfield: The March 10, 1922 earthquake that struck the Parkfield area was a magnitude 6.1. It caused ground cracks six to twelve inches in width and a quarter-mile long in the Chalome Valley (Rosenberg, 2001). Chimneys were knocked down and some housed suffered structural damage. An oil pipeline was also damaged in the area.

1926 Monterey Bay Doublet: On October 22, 1926 two magnitude 6.1 earthquakes an hour apart occurred in southern Monterey Bay. Numerous buildings experienced damage and cracking on the Monterey Peninsula and in Salinas. It is postulated that the earthquakes occurred on either the San Gregorio fault or Monterey Bay fault zone (Rosenberg, 2001).

1934 Parkfield: A magnitude 6.1 earthquake again struck the Parkfield area on June 7, 1934. Again this quake caused fracturing of the ground surface and broke the oil pipeline in the area. Chimneys and houses were also damaged in the area (Rosenberg, 2001). This is the closest quake of magnitude 5.0 or greater to the site at approximately 37.4-km away.

1938 Stonewall Canyon: On September 27, 1938 a magnitude 5.0 quake occurred in the Stonewall Canyon area northeast of Soledad. Details of the damage caused by this quake are unknown.

1989 Loma Prieta: The October 17, 1989 (M_w 7.1) Loma Prieta earthquake, which is believed to have occurred on an oblique-slip blind thrust closely associated with the San Andreas fault, also caused significant damage in the San Francisco and Monterey Bay areas. It was the largest earthquake to strike this region of California since the California earthquake of 1906. The effects of this earthquake was felt over an area of 400,000 square miles and resulted in 74 deaths, 3,757 injuries, 12,000 homeless, and over $6 billion in property damage (Plafker & Galloway, 1989). In Monterey County 19 homes were destroyed, 341 homes damaged, two deaths and 14 people injured, and causing approximately $118 million in damages (Rosenberg, 2001). The Carmel Valley area suffered little damage as a result of this quake. The liquefaction experienced in the 1906 quake was absent during this event. The explanation given by Rosenberg, 2001 for the differences in liquefaction occurrence is differences in ground water table at the time of rupture. Groundwater was likely higher in 1906 as they had a wet winter, and the 1989 quake occurred after several years of drought.

As part of our historical earthquake research, we performed a database search of the California Geological Survey (http://redirect.conservation.ca.gov/cgs/rghm/quakes/historical/hiseq.asp) for earthquakes with magnitudes greater than 5.5 within an approximate 50-km radius of the site for the years from 1800 to 2014. The database research indicated a total of 23 events within the search parameters, see Table 1 below.

Table 2
California Historical Earthquakes (M>=5.5)
within 50 km of Latitude 36.6739, Longitude –121.6739

Date	Magnitude	Distance from Site	Location
10/11/1800	5.5	29.2 km	San Juan Bautista
06/10/1836	6.4	34.7 km	Between Monterey & Santa Clara
01/18/1840	6.5	29.2 km	San Juan Bautista
07/03/1841	5.9	27.5 km	San Juan Bautista
07/29/1841	5.8	28.2 km	San Juan Bautista
03/26/1866	5.8	42.3 km	Gilroy
03/30/1883	6.0	25.3 km	San Juan Bautista
04/15/1889	5.5	44.0 km	Hollister
04/24/1890	6.3	31.8 km	Pajaro Gap
11/13/1892	5.9	28.4 km	Hollister
06/20/1897	6.3	45.0 km	Gilroy
04/30/1899	6.0	26.4 km	Watsonville
07/06/1899	5.8	39.5 km	San Juan Bautista
05/18/1906	5.6	27.2 km	San Juan Bautista
03/11/1910	5.8	36.7 km	Watsonville
12/31/1910	5.7	42.9km	Monterey Bay
08/06/1916	5.6	38.2 km	Paicines Area
10/22/1926	6.1	48.0 km	Monterey Bay
10/22/1926	6.1	45.9 km	Monterey Bay
04/25/1954	5.6	31.9 km	Watsonville
04/09/1961	5.5	34.0 km	Hollister
04/09/1961	5.5	34.5 km	Hollister
01/26/1986	5.5	40.3 km	Paicines - Hollister

Our database search within the defined parameters revealed that the largest earthquake to occur was a M6.5 on January 18, 1840 located in the San Juan Bautista area about 29.2 km northeast of

the site. The closest earthquake with a M>=5.5 was a M6.0 event that occurred 25.3 km northeast on the site in the San Juan Bautista area on March 30, 1883.

Ground Shaking: The 1906 (M_w~8.0) "San Francisco earthquake", which ruptured a portion of the active San Andreas fault from approximately San Juan Bautista to Cape Mendocino, caused severe damage in parts of the Monterey-San Francisco Bay area. The earthquake occurred on April 18, 1906 and caused severe ground shaking and structural damage to buildings in Monterey, Santa Cruz and San Benito Counties (Lawson, 1908). The 1989 (M_w 7.1) Loma Prieta earthquake also caused significant damage in San Benito, Santa Cruz and Monterey Counties (McCann, 1990). Strong ground shaking associated with major earthquakes along the San Andreas and other nearby faults will undoubtedly occur at the site in the future. The peak ground acceleration with a 10 percent probability of being exceeded in a 50-year period in the vicinity of the site is 0.348g (USGS Ground Motion Parameters computer program, Version 5.1.0). The site modified calculated peak ground acceleration with a 2 percent probability of being exceeded in a 50-year period is 0.522g (USGS Ground Motion Parameters computer program, Version 5.1.0).

Seismic Design Parameters: For seismic design using the 2013 CBC, we recommend the following design values be used. The parameters were calculated using the U.S. Geological Survey Ground Motion Parameters computer program (Version 5.1.0) and were based on the approximate center of the site located at 36.6205° N. latitude and –121.6739° W. longitude.

2013 CBC Seismic Design Parameters

Design Parameter	***Site Design Value***
Site Class	**D – Stiff Soil**
Spectral Acceleration Short Period	**(S_s) = 1.304g**
Spectral Acceleration 1 Second Period	**(S_1) = 0.590g**
Short Period Site Coefficient	**(F_a) = 1.00**
1 Second Period Site Coefficient	**(F_v) = 1.50**
MCE Spectral Response Acceleration Short Period	**(S_{MS}) = 1.304g**
MCE Spectral Response Acceleration 1-Second Period	**(S_{M1}) = 0.884g**
5% Damped Spectral Response Acceleration Short Period	**(S_{DS}) = 0.870g**
5% Damped Spectral Response Acceleration 1-Second Period	**(S_{D1}) = 0.590g**

Liquefaction, Lateral Spreading, and Dynamic Compaction: Liquefaction is the transformation of soil from a solid to a liquid state as a consequence of increased pore-water pressures in response to strong ground shaking during an earthquake. Liquefaction most often occurs in loose saturated silts, and saturated poorly graded fine-grained sands. Liquefaction potential maps prepared by Dupre' (1990) show that the site is in an area of very low potential for liquefaction. Based on our field investigation and research, it is our opinion that the potential for liquefaction at the site is very low.

Lateral spreading can occur when soils liquefy beneath a slope, or even beneath level ground if an open topographic face is nearby. Since the potential for liquefaction at the site is judged to be very low, the potential for lateral spreading is likewise estimated to be very low. Dynamic compaction occurs when loose, unsaturated soils densify in response to ground shaking during a seismic event. Because no such materials were encountered on the site, it is our opinion that the potential for dynamic compaction is very low.

Ridge-Top Shattering: Ridge-top shattering was well documented after the 1971 San Fernando earthquake and also occurred during the 1989 Loma Prieta earthquake in the Santa Cruz Mountains. The phenomenon occurs most commonly on the crests of sharp ridges, where seismic shaking energy is concentrated as in the chimney of a building. Spreading can effect both soil and the underlying bedrock and gives the appearance of plowed ground (Barrows, 1975; Kahle, 1975). Most of the site is situated on gentle to steep slopes with rounded topography, as opposed to sharp ridge crests. Topographic features associated with ridge top spreading are also not present at the site or its vicinity. Therefore, the potential for ridge-top shattering is considered to be low.

Landsliding and Slope Stability: The steep slopes on the northerly and southerly flanks of the site are prone to landsliding and slope failure. Block landslides, surficial failures, earth flows and colluvial deposits of varying ages are present on these slopes, which are considered the most significant geologic hazards on the site. In order to mitigate the potential hazards from

landsliding and slope instability, future building foundations should be located within the Geologically Suitable Building Envelope as depicted on Sheet 1 of this report. *A supplemental site specific numerical slope stability analysis must be performed if structures designed for human occupancy extend beyond the limits of the of the identified Geologically Suitable Building Envelope.*

Grading: As the soil materials that will be supporting future foundations at depth consist of Pleistocene age semi-consolidated sediments, deep remedial grading is not considered necessary to improve the soils for foundation support. As previously noted, man-made deposits of fill and trash fill over 10 feet in depth are located on the site. The areas of undocumented fill must be completed removed down to firm and dense native earth materials and be backfilled with engineered fill prior to building development and foundation construction.

Soil Expansion: Based on visual observations and laboratory testing the near surface site soils are classified as silty SAND and well graded SAND, and are considered to be non-plastic. No special measures are required to mitigate the effect of soil expansion on foundations, and interior or exterior concrete slabs-on-grade.

Erosion: The site soils and earth materials are highly erodible. Stringent erosion control measures should be implemented to provide surficial stability of area that will be disturbed by proposed grading.

RECOMMENDATIONS

In our opinion, the site is suitable from a geologic and soil-engineering standpoint for the proposed development provided that the preliminary recommendations contained herein are implemented in the design and construction. The following preliminary recommendations are presented as guidelines to be used by project planners and designers for the geologic and soil engineering aspects of the project design and construction. *These recommendations have been prepared assuming that Landset Engineers, Inc. will be commissioned to perform additional design level investigation(s),* review proposed grading & drainage and foundation plans before construction, and to observe, test and advise during earthwork and foundation construction. Soil and groundwater conditions can deviate from the conditions encountered at the test pit locations. If significant variations in the subsurface conditions are encountered during construction, it may be necessary for Landset Engineers, Inc. to review the recommendations presented herein, and recommend adjustments as necessary.

Geologic

The following recommendations are drawn from the data acquired and evaluated during this investigation for the proposed project.

1. Prior to construction, the project geologist should review the site grading and improvement plans and their potential impacts on identified geologic hazards.
2. In order to mitigate the potential hazards from landsliding and slope instability, future building foundations should be located within the Geologically Suitable Building Envelope (Sheet 1). Structures designed for human occupancy should be located within this envelope.
3. Structures designed for human occupancy shall be designed according to the current edition of the CBC. Structures should be designed for peak horizontal ground acceleration of 0.522g.
4. The project geologist should review the site grading during earthwork. The purpose of this review is to examine the site for overall stability and to provide additional recommendations if site conditions differ those identified during the course of this investigation.

Soil Engineering

Site Preparation and Grading

1. The soil engineer should be notified **at least ten (10) working days prior to any site clearing or grading** so that the work in the field can be coordinated with the grading contractor, and arrangements for testing and observation services can be made. The recommendations contained in this report are based on the assumption that Landset Engineers, Inc. will perform the required testing and observation services during grading and construction. It is the owner's responsibility to make the necessary arrangements for these required services.

2. Prior to grading, construction areas should be cleared of obstructions, buried structures & utilities, tree roots, undocumented fill and other deleterious materials. Site clearing should be observed by a field representative of Landset Engineers, Inc. Voids created by removal of material as described above should be called to the attention of the soil engineer. No fill should be placed unless a representative of this firm has observed the underlying soil.

3. Following site clearing, the upper 1.5 to 3-feet of native soil should be overexcavated from the building areas. The actual depth of subexcavation should be determined by additional design level soil engineering investigation(s). Building areas are defined as the soils within and extending a minimum of 5 feet beyond the foundation perimeters and structural fill areas.

4. The soils exposed by overexcavation should be scarified 12 inches; moisture conditioned to above optimum moisture content, and compacted to at least 90% of maximum dry density. Where referenced in this report, percent relative compaction and optimum moisture content shall be based on ASTM test D1557. Areas to receive structural fill outside the building pad should be scarified and recompacted in a similar manner.

5. In order to limit the potential for differential settlement of conventional footings, foundations should not be supported on both fill and cut. Therefore, we recommend that the cut side of the building area should be overexcavated (undercut). The proposed grading within the building area should be designed so that no more than 5 feet of differential fill thickness exists below foundations. The portion of the building foundations bearing on cut should be undercut at least 3 feet below the proposed building pad so that the entire foundation is bearing on a uniform layer of compacted fill. Deeper overexcavation may be necessary in order to satisfy the differential fill thickness recommendations.

6. If structural fill is to be placed on slopes steeper than 6:1 (horizontal to vertical), keyways should be established at the toe of the proposed fill slopes. The keyways should have minimum widths of 12-feet and should be sloped approximately 2% back into the hillsides. The keyways and subsequent upslope benches should penetrate into sufficiently stable material at determined by the soil engineer at the time of grading.

7. If structural fill is to be placed on slopes steeper than 10:1, the slopes should be benched. The benches should have a minimum width of 12-feet and should be sloped approximately 2% back into the hillsides. The soil engineer will determine the depth, scarification, and recompaction of the bench bottoms at the time of grading.

8. If fill over cut slopes are to be constructed, keyways should be established at the cut/fill daylight lines. The keyways should have minimum widths of 12-feet and should be sloped approximately 2% back into the hillsides. The keyways and subsequent upslope benches should penetrate into sufficiently stable material as determined by the soil engineer at the time of grading.

9. The soil engineer should also observe keyways and benches to assess the need for subsurface drains (subdrains). Subdrains in other areas may also be recommended depending on the grading plan and site conditions observed at the time of grading.

10. Fill slopes should be constructed at a maximum finished slope inclination of 2:1 (horizontal to vertical). Fill slopes should be overfilled and trimmed back to competent material. Further compaction of exposed fill slope faces using sheepsfoot rollers or tracked equipment may be recommended by the soil engineer. Cut slopes should be constructed at an inclination of 2:1.

11. Fill, material should be placed in thin lifts, moisture conditioned to a level above optimum moisture content, and compacted to a minimum of 90 percent of maximum dry density. Prior to compaction, the soil should be cleaned of any rock, debris, and irreducible material larger than 3-inches in diameter.

12. Fill material should consist of non-expansive Select Structural Fill. Select Structural Fill is defined herein as a native or import fill material which, when properly compacted, will support foundations, pavements, and other fills without detrimental settlement or expansion. Select Structural Fill is specified as follows:

Select Structural Fill

- Clean native soil may be utilized, but import fill shall have a Plasticity Index of less than 12
- Be free of debris, vegetation, and other deleterious material
- Have a maximum particle size of 3-inches in diameter
- Contain no more than 15% by weight of rocks larger than 21/2-inches in diameter
- Have sufficient binder to allow foundation and unshored excavation stand without caving
- Prior to delivery to the site, a representative sample of proposed import should be provided to Landset Engineers, Inc. for laboratory evaluation

13. In areas to be paved, the upper 12-inches of subgrade soils and all aggregate base should be compacted to a minimum of 95 percent of maximum dry density. Aggregate base and subgrade should be firm and unyielding when proof rolled by heavy rubber-tired equipment prior to paving.

Foundations

14. Structures may be supported by conventional continuous and spread (pad) footings or drilled pier & grade beam foundations.

Conventional Footings

15. Conventional footings may be supported ***entirely on recompacted engineered fill or entirely on firm native soil, but not a combination of both***. Footings should have minimum depths of 12-inches below lowest adjacent grade for single story structures, and 18-inches below lowest adjacent grade for two story structures, and 24-inches below lowest adjacent grade for three story structures. For the above conditions, the footings for a proposed structure may be designed for an allowable bearing pressure range of 1,000 to 3,000 psf for dead plus live loads. Footings should be reinforced as directed by the architect/structural engineer.

16. Footing excavations should be observed by a representative of this firm prior to placement of formwork or reinforcement. Concrete should be placed only in foundation excavations that have been kept moist, and contain no loose or soft soil debris.

17. Footings located adjacent to other footings or utility trenches should have their bearing surfaces founded below an imaginary 1:1 (horizontal to vertical) plane projected upward from the bottom edge of the adjacent footings or utility trenches.

Pier & Grade Beam Foundations

18. Drilled friction and/or end bearing pier and grade beam foundations should penetrate through any engineered fill and/or topsoil and bear entirely into the dense native earth materials as verified by a representative of this firm at the time of drilling.

19. Foundation piers should be 12 to 24-inches in diameter and should be spaced apart at least 3 pier diameters, center to center. These cast-in-place concrete piers should be reinforced as directed by the project architect/structural engineer.

20. For the above conditions, the piers for a proposed structure may be designed for an allowable skin-friction range of 200 to 350 psf. for pier lengths in native earth materials for dead plus live loading. This value may be increased by one-third when considering temporary additional short-term wind or seismic loading. The support from end bearing of the piers should be neglected. Due to possible disturbance during drilling, skin friction on the upper 2-feet of the piers should be discounted in the calculations. Piers should be structurally connected to grade beams designed to transfer imposed loads to the foundation piers.

21. For calculating resistance to lateral loading, a passive resistance equal to an equivalent fluid weight range of 200 to 350 pcf. can be used (ultimate value). For pier foundations, this lateral resistance can be used over two times the cross sectional area of the pier. Only competent native earth material and engineered structural fill may be utilized in calculating lateral passive resistance. Additionally, the upper 2-feet of the pier should be ignored in providing lateral passive resistance.

22. Perimeter foundation piers and piers adjacent to structural concrete slabs-on-grade should be laterally restrained by concrete grade beams penetrating a minimum of 12-inches below lowest adjacent grade. Grade beams between interior piers are not considered necessary. Grade beams should be reinforced as directed by the project architect/structural engineer.

Slabs-on-Grade and Exterior Flatwork

23. For buildings utilizing conventional footings, interior slabs-on-grade should have a thickness of 4 to 6-inches. It should be noted that the project structural engineer might require thicker slab sections to provide the necessary support for the anticipated structural loads. Conventional concrete slabs-on-grade should be reinforced with steel as specified by the structural engineer.

24. To minimize floor dampness, such as where moisture sensitive floorings will be present, a section of capillary break material at least 4-inches thick covered with a membrane vapor barrier should be placed between the floor slab and the compacted soil subgrade. The capillary break should consist of a clean, free draining material such as ½ to ¾-inch drain rock with not more than 10 percent of the material passing a No. 4 sieve. The drain rock should be free of sharp edges that might damage the membrane vapor barrier. The membrane vapor barrier should be a minimum 10 mil in thickness, and care should be taken to properly lap and seal the vapor barrier, particularly around utilities. The sand cushion should be lightly moistened immediately prior to concrete placement.

25. Exterior concrete flatwork such as driveways, patios and sidewalks should be designed to act independently of building foundations. Exterior flatwork should be constructed on compacted soil subgrade moisture conditioned to over optimum moisture content. Reinforcement and joint spacing should be at the direction of the architect/structural engineer.

Retaining Walls

26. Retaining walls for the site may be designed using the following general design parameters, which assume fully drained wall backfill conditions. The average bulk density of material placed on the backfill sides of walls considers a design range of 120 to 130 pounds per cubic foot (pcf).

27. The vertical plane extending down from the ground surface to the bottom of the heel of the vertical wall will be subject to lateral soil pressures (plus surcharge loads). An Active Soil Pressure of 35 to 50pcf (equivalent fluid weight) should be used in design of site walls that are free to move laterally and resultant settlement of backfill is tolerable. An At-Rest Soil Pressure of 50 to 70pcf should be used in design for walls, which are restricted from movement at the top (such as foundation walls). The above pressures are applicable to a horizontal retained surface behind the wall. Walls having a retained surface that slopes upward from the wall should be designed for an additional equivalent fluid pressure of 1 pcf for the active case and 1.5 pcf for the at rest case, for every two degrees of slope inclination.

28. The additional effects of earthquakes on the walls may be simulated by applying a horizontal line force of $10H^2$ pounds per foot length of wall. This force should be applied at a height of 0.6H above the wall heel. The additional effects of vertical live loads on the backfill side of walls may be simulated by applying 50 percent of the live loads as a horizontal surcharge force on the walls. The point of application of the live load surcharge may be estimated by assuming a 45-degree line of action down from the live load to the design plane or wall stem.

29. Retaining walls should be supported on foundations bearing uniform soil conditions as described in the preceding foundation section of this report. The range for ultimate coefficient of friction below the base of the wall = 0.25 to 0.35. Passive soil resistance against the portion of the wall base and key is estimated to range from 200 to 350psf/ft.

for level ground in front of the wall. Lateral support from the soil that may be excavated or used in landscaping near the wall footing should be neglected. Typically this would include the top 12-inches of soil around the wall.

30. The earth pressures are based on fully drained conditions. We recommend that a zone of drainage material at least 12-inches wide should be placed on the backfill side of the walls. Drainage materials should consist of Class 2 permeable material complying with Section 68 of the Caltrans Standard Specifications, latest edition, or ¾-inch permeable drain rock wrapped in Mirafi 140N or equivalent. Manufactured drains such as Miradrain or Enkadrain are acceptable alternatives to the use of permeable or gravel material, provided that they are installed in accordance with the recommendations of the manufacturer. The drains should extend from the base of the walls to within 12-inches of the top of the wall backfill. The upper 12-inches of wall backfill should consist of compacted structural fill. A perforated pipe should be placed (holes down) about 4-inches above the bottom of the wall or below lowest adjacent grades in front of the wall. The perforations should be no larger than ¼-inch diameter, and the perforated pipe should be connected via a solid collector pipe to an approved point appropriate discharge facility.

31. Wall backfill should be moisture conditioned and compacted to a minimum of 90% of maximum dry density. If heavy compaction equipment will be used for compaction of the wall backfill, the wall design should include a compaction surcharge in addition to the soil pressures given above. Landset Engineers, Inc. should be consulted for proper compaction surcharge pressures. To avoid surcharging the walls, backfill within 3-feet of the wall should be compacted by hand operated equipment.

Utility Trenches

32. On-site soils should be properly shored and braced during construction to prevent sloughing and caving of trench sidewalls. The contractor should comply with the Cal/OSHA and local safety requirements and codes dealing with excavations and trenches.

33. A select non-corrosive, granular, material should be used as bedding and shading immediately around underground utility pipes and conduits. Native soils may be used for trench backfill above the select material.

34. Trench backfill in landscaped or unimproved areas should be compacted to a minimum of 85 percent of maximum dry density. Trench backfill beneath asphalt and concrete pavements should be compacted to a minimum of 95 percent of maximum dry density. Trench backfill in other areas should be compacted to a minimum of 90 percent of maximum dry density.

35. The bottoms of utility trenches that are parallel to foundations should not extend below an imaginary plane sloping downward at a 1:1 (horizontal to vertical) angle from the bottom outside edges of foundations.

Site Drainage

36. The site soils are highly erodible and a drainage & erosion control plan is essential to the project. Fluctuations of moisture contents are a major consideration, both before and after construction. Site runoff will be increased due to the new paved and roofed surfaced areas. A comprehensive drainage & erosion control plan designed by a Registered Civil Engineers essential to the long-term sustainability of the project.

37. Surface drainage should provide for positive drainage so that runoff is not permitted to pond adjacent to foundations, concrete slabs-on-grade, and pavements. Pervious ground surfaces should be finish graded to direct surface runoff away from site improvements at

a minimum 5 percent grade for a minimum distance of 10-feet. If this is not practicable due to the terrain or other site features, swales with improved surfaces should be provided to divert drainage away from improvements. Surface runoff collected in this swale should be controlled and flow in a non-erosive manner to an approved point of discharge.

38. Roof gutters should be utilized around the building eaves. Roof gutters should be connected to downspouts, which in turn should be connected to pipes leading to the site storm drain system. Runoff from downspouts, planter drains and other improvements should discharge in a non-erosive manner away from site improvements in accordance with the requirements of the governing agencies.

39. The migration of water or spread of root systems below foundations, slabs, or pavements may cause differential movement and subsequent damage. Landscaping runoff collection facilities should be incorporated in the project design.

40. Cut-off drainage swales should be constructed at the top of all cut and fill slopes. These drainage swales should be of adequate size to collect surface runoff and flow to an approved point of discharge in a non-erosive manner. Proper drainage and re-vegetation of graded slopes is essential to ensure stability.

QUALITY CONTROL

The conclusions and recommendations contained in this geologic hazards report and soil engineering feasibility investigation are preliminary in nature. We recommend that Landset Engineers, Inc. be retained to review preliminary plans once they are available. Additionally, we should provide final engineered grading, foundation, and retaining wall design criteria based on a site specific design level investigation(s) once the proposed site improvements, construction type, locations and anticipated loads are known. These services are beyond the scope of this investigation.

The following items should be performed, reviewed, tested, or observed by this firm:

- ***Design level soil engineering investigation(s)***
- ***Final grading & drainage and foundation plans***
- ***Site stripping and clearing***
- ***Overexcavation***
- ***Scarification and recompaction***
- ***Fill placement and compaction***
- ***Foundation excavations***
- ***Surface & subsurface drainage improvements.***
- ***Underground utility backfill and retaining wall construction.***
- ***Compaction of subgrade and Class 2 A.B. in areas to be paved.***

If Landset Engineers, Inc. is not retained to provide design level engineering geologic services, design level soil engineering services, or construction observation and compaction testing, we shall not be responsible for the interpretation of the information by others or any consequences arising therefrom.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

The preliminary recommendations contained in this report are based, in part, on certain plans, information, and data that has been provided to us. Any changes in those plans, information, and data will render our recommendations invalid unless we are commissioned to review the changes and to make any necessary modifications and/or additions to our recommendations. The criteria in this report are considered preliminary until such time as they are modified or verified by the soil engineer in the field during construction. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client and the client's architect/engineer. Application beyond the stated intent is strictly at the user's risk.

The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed in the borings. If any variations or undesirable conditions are encountered during construction, Landset Engineers, Inc. should be notified so that supplemental recommendations can be given.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are called to the attention of the Architects and Engineers for the project and incorporated into the plans, and that the necessary steps are taken to ensure that the Contractor and Subcontractors carry out such recommendations. The conclusions and recommendations contained herein are professional opinions derived in accordance with current and local standards of professional practice.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes outside of our control. Therefore, this report should not be relied upon after a period of three years, without being reviewed by Landset Engineers, Inc. from the date of issuance of this report.

This report does not address issues in the domain of the contractor such as, but not limited to, loss of volume due to stripping of the site, shrinkage of fill soils during compaction, excavatability, and construction methods. The scope of our services did not include any determination or evaluation of soil corrosion potential, environmental assessment of wetlands, radioisotopes, hydrocarbons, hazardous or toxic materials, or other chemical properties in the soil, surface water, groundwater or air, on or below or around the site.

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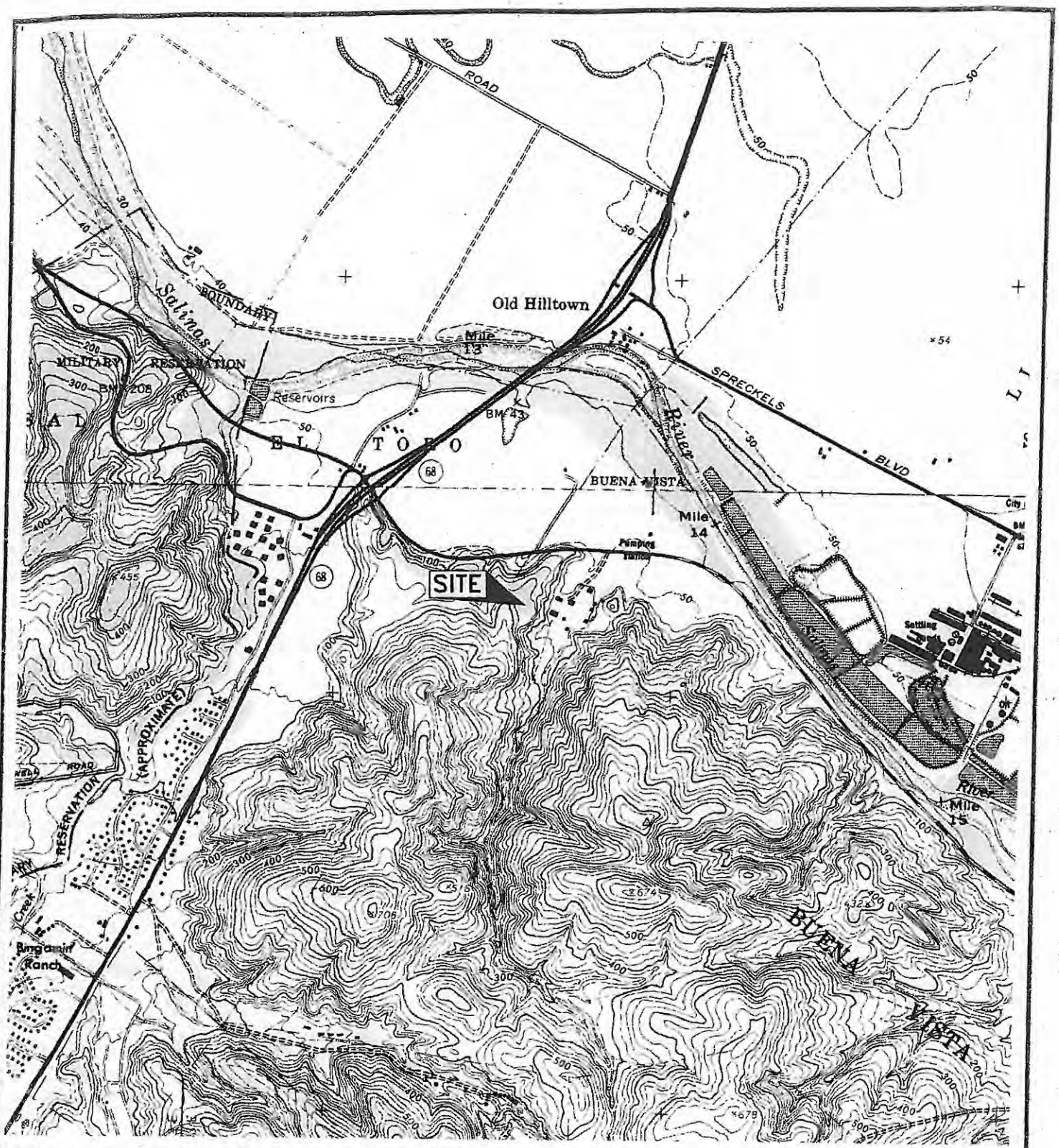
FIGURES

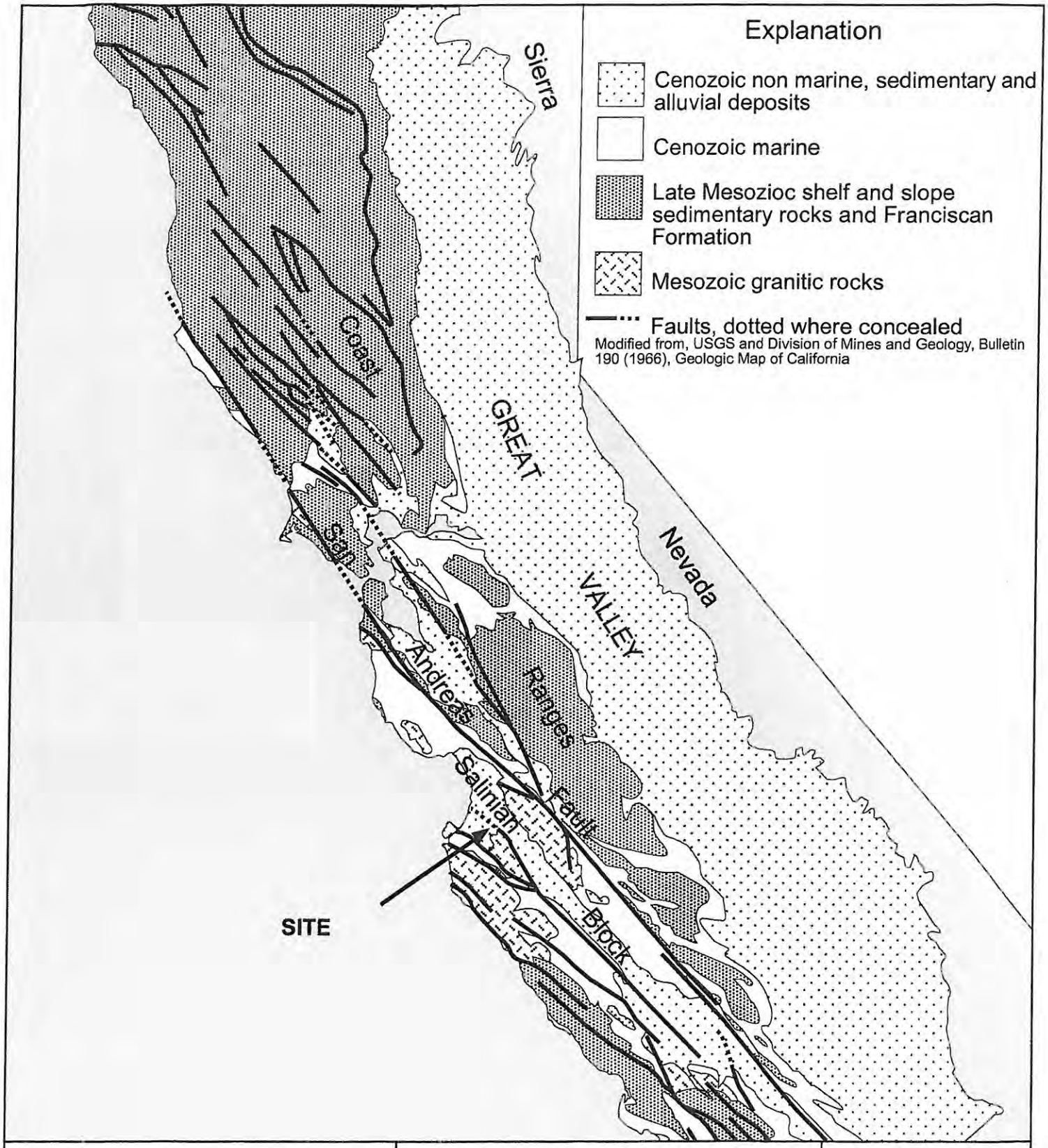


BASE MAPS: Salinas & Spreckels Point, California
U.S.G.S. 7.5' Topographic
Quadrangle Maps

Scale: 1"=2000'

N

LANDSET ENGINEERS, INC. 520B CRAZY HORSE CANYON ROAD, SALINAS, CA 93907 (831) 443-6970 FAX(831) 443-3801	**Vicinity Map** Riverview at Las Palmas (APN 139-211-035) Woodridge Court Monterey County, California	FIGURE **1** PROJECT **1272-01**



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Regional Geologic Map
Riverview at Las Palmas
(APN 139-211-035)
Woodbridge Court
Monterey County, California

FIGURE 2

PROJECT 1272-01

After Clark, Brabb & Rosenberg, 2000

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Geologic Vicinity Map
Riverview at Las Palmas (APN 139-211-035)
Woodridge Court
Monterey County, California

FIGURE
3

PROJECT
1272-01

LIST OF MAP UNITS

[See accompanying pamphlet for more detailed Description of Map Units]

Qb **Basin deposits (Holocene)**—Unconsolidated, plastic clay and silty clay containing much organic material; locally contains interbedded thin layers of silt and silty sand

Qal **Alluvial deposits, undivided (Holocene)**—Unconsolidated, heterogeneous, moderately sorted silt and sand with discontinuous lenses of clay and silty clay

Qyf **Younger flood-plain deposits (Holocene)**—Unconsolidated, relatively fine-grained, heterogeneous deposits of sand and silt; commonly includes relatively thin, discontinuous layers of clay

Qcf **Abandoned channel fill deposits (Holocene)**—Unconsolidated, plastic, poorly sorted clay, silty clay, and silt. Deposited within channels on younger and older flood-plain deposits. Thickness generally less than 3 m

Qc **Colluvium (Holocene)**—Unconsolidated, heterogeneous deposits of moderately to poorly sorted silt, sand, and gravel deposited by slope wash and mass movement

Qaf **Artificial fill (Holocene)**—Heterogeneous mixture of artificially deposited material ranging from well-compacted sand and silt to poorly compacted sediment high in organic content; only locally delineated

Qls **Landslide deposits (Quaternary)**—Heterogeneous mixture of deposits ranging from large block slides of indurated bedrock to debris flows in semiconsolidated sand and clay

Qof **Older flood-plain deposits (Holocene)**—Unconsolidated, relatively fine-grained, heterogeneous deposits of sand and silt, commonly includes relatively thin layers of clay

Qch **Alluvial fan deposits of Chualar (Pleistocene)**—Weakly consolidated, moderately to poorly sorted sand, silt, and gravel deposited as a series of alluvial fans flanking the Salinas Valley, south of Spreckels. Unit age is late Pleistocene

Qt **Terrace deposits, undivided (Pleistocene)**—Weakly consolidated to semiconsolidated, moderately to poorly sorted silt, silty clay, sand, and gravel deposited in a fluvial environment

Qp **Alluvial fan deposits of Placentia (Pleistocene)**—Semiconsolidated, moderately to poorly sorted sand, silt, and gravel; gravel content increases toward head of the fan. Similar to the alluvial fan deposits of Chualar (Qch), except capped by well-developed soils. Unit age is middle(?) Pleistocene

Qoe **Older eolian deposits (Pleistocene)**—Moderately well-sorted sand as much as 60 m thick that contains no intervening fluvial deposits

Qgl **Alluvial fan deposits of Gloria (Pleistocene)**—Moderately consolidated, deeply weathered, moderately to poorly sorted sand, silt, and gravel, capped with moderately well drained, maximally developed soils with duripans. Unit age is middle to early(?) Pleistocene

Qtc **Continental deposits, undivided (Pleistocene-Pliocene(?))**—Nonmarine, semiconsolidated, poorly sorted, fine- to coarse-grained sand with pebble and cobble gravel interbeds

Tsm **Santa Margarita Sandstone (Miocene)**—Marine and brackish-marine, white, friable, fine- to coarse-grained, arkosic sandstone. Age of unit is late Miocene

Tuss **Unnamed sandstone, undifferentiated (Miocene)**—Marine; buff to light-gray, poorly to well-sorted arkosic sandstone, lithologically similar to unnamed sandstone (Tus). Rests with apparent conformity on the unnamed conglomerate (Tuc). Where Monterey Formation is absent, the unnamed sandstone is not differentiated from the younger Santa Margarita Sandstone, and both units are mapped as Tuss. Age of unit is middle to late Miocene

Tmd **Monterey Formation, diatomite (Miocene)**—Very pale orange to white, soft, punky, commonly silty; Mohnian Stage

Tm **Monterey Formation, porcelanite (Miocene)**—Light-brown to white, hard, brittle, platy; Mohnian Stage

Tus **Unnamed sandstone (Miocene)**—Marine, buff to light-gray, poorly to well-sorted arkosic sandstone, locally friable, locally conglomeratic. Age of unit is middle Miocene

Tuc **Unnamed conglomerate (Miocene)**—Nonmarine; buff to light-gray, poorly sorted sandy cobble conglomerate, well-indurated. Age of

Kgd **Granodiorite of Cachagua of Ross (1976a) (Late Cretaceous)**

Kqm **Garnetiferous quartz monzonite of Pine Canyon of Ross (1976a) (Late Cretaceous)**

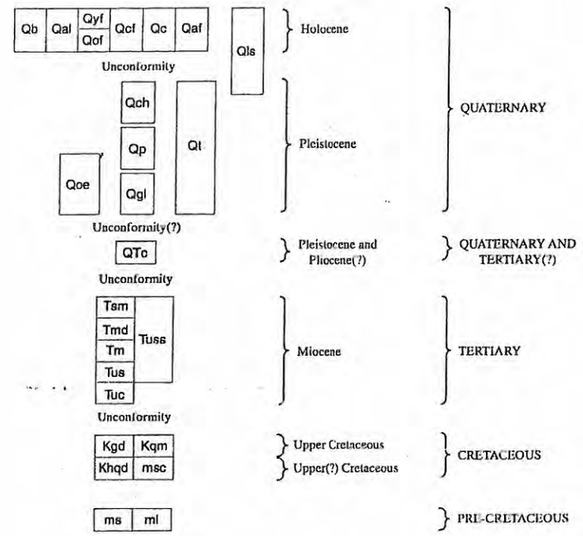
Khqd **Hornblende-biotite quartz diorite and diorite of Corral de Tierra (Late? Cretaceous)**

msc **Schist of the Sierra de Salinas of Ross (1976a) (Late? Cretaceous)**

ms **Quartzofeldspathic rocks (pre-Cretaceous)**

ml **Marble (pre-Cretaceous)**

CORRELATION OF MAP UNITS



EXPLANATION

Contact—Dashed where approximately located or gradational, dotted where concealed, queried where questionably located

Fault—Dashed where inferred, dotted where concealed, queried where doubtful. U, relatively upthrown side; D, relatively downthrown side

Fold—Dashed where approximately located, dotted where concealed. Showing direction of plunge

Anticline

Syncline

Strike and dip of beds

Horizontal

Inclined

Overturned

Vertical

Ash Bed

Foliation

Water well

Dry hole drilled for hydrocarbon exploration

Landslide– Arrows show general direction of movement. Query indicates that identification of feature as a landslide is in doubt

Spring

After Clark, Brabb & Rosenberg, 2000

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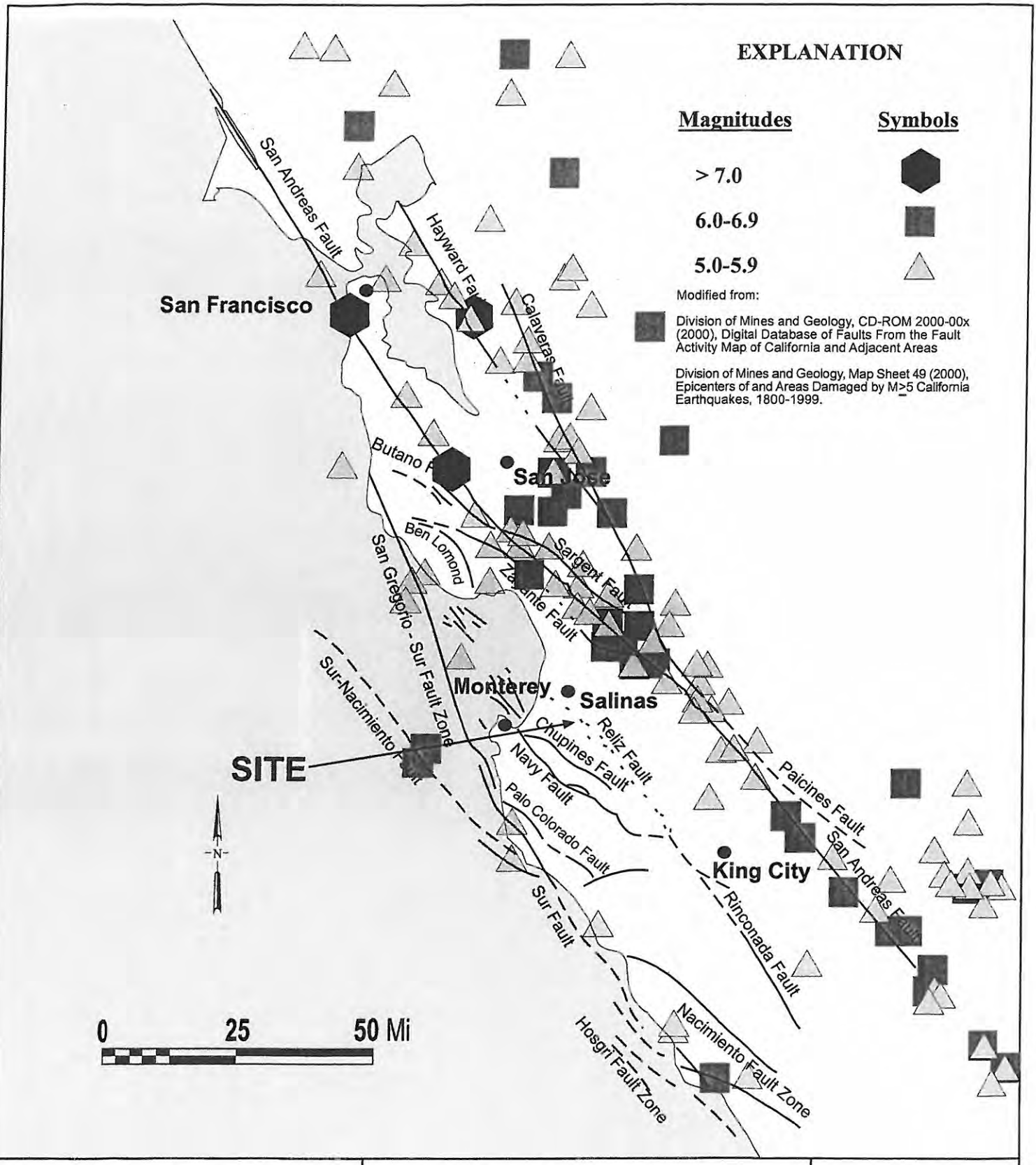
Explanation to Geologic Vicinity Map

Riverview at Las Palmas (APN 139-211-035)
Woodridge Court
Monterey County, California

FIGURE
4
PROJECT
1272-01



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Regional Fault and Seismicity Map

Riverview at Las Palmas
(APN 139-211-035)
Woodbridge Court
Monterey County, California

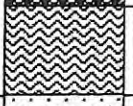
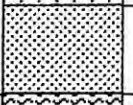
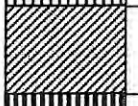
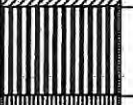
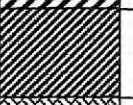
FIGURE
5

PROJECT
1272-01

APPENDIX A

Unified Soil Classification Systems
Soil Terminology
Logs of Exploratory Test Pits TP-1 through TP-13

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS More than 50% of material is larger than No. 200 sieve size.	GRAVEL AND GRAVELLY SOILS More than 50% of coarse fraction retained on No. 4 sieve.	CLEAN GRAVELS		GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES		GM	Silty gravel, gravel-sand-silt mixtures.
				GC	Clayey gravels, gravel-sand-clay mixtures.
	SAND AND SANDY SOILS More than 50% of coarse fraction passing No. 4 sieve.	CLEAN SAND (Little or no fines)		SW	Well-graded sands, gravelly sands, little or no fines.
				SP	Poorly-graded sands, gravelly sands, little or no fines.
		SAND WITH FINES (Appreciable amount of fines)		SM	Silty sands, sand-silt mixtures.
				SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS More than 50% of material is smaller than No. 200 sieve size.	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity.
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
				OL	Organic silts and organic silty clay of low plasticity.
		LIQUID LIMIT GREATER THAN 50		MH	Inorganic silty, micaceous or diatomaceous fine sand or silty soils.
				CH	Inorganic clays of high plasticity, fat clays.
				OH	Organic clays or medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS				PT	Peat, humus, swamp soils with high organic contents.
VARIOUS SOILS AND MAN MADE MATERIALS					Fill materials.
MAN MADE MATERIALS					Asphalt and concrete.

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520B Crazy Horse Canyon Road, Salinas, CA 93907
(831) 443-6970, Fax (831) 443-3801, landseteng.com

Figure A1

SOIL TERMINOLOGY

SOIL TYPES (Ref. 1)

Boulders:	Particles of rock that will not pass a 12 inch screen.
Cobbles:	Particles of rock that will pass a 12 inch screen, but not a 3 inch sieve.
Gravel:	Particles of rock that will pass a 3 inch sieve, but not a No.4 sieve.
Sand:	Particles that will pass a No. 4 sieve, but not a No. 200 sieve.
Silt:	Soil that will pass a No. 200 sieve, that is non-plastic or very slightly plastic, and that exhibits little or no strength when dry.
Clay:	Soil that will pass a No. 200 sieve, that can be made to exhibit plasticity (putty-like properties) within a range of water contents, and that exhibits considerable strength when dry.

MOISTURE AND DENSITY

Moisture Condition:	An observational term; dry, slightly moist, moist, very moist, saturated.
Moisture Content:	The weight of water in a sample divided by the weight of dry soil in the soil sample, expressed as a percentage.
Dry Density:	The pounds of dry soil in a cubic foot of soil.

DESCRIPTORS OF CONSISTENCY (Ref. 3)

Liquid Limit:	The water content at which a No. 40 soil is on the boundary between exhibiting liquid and plastic characteristics. The consistency feels like soft butter.
Plastic Limit:	The water content at which a No. 40 soil is on the boundary between exhibiting plastic and semi-solid characteristics. The consistency feels like stiff putty.
Plasticity Index:	The difference between the liquid limit and the plastic limit, i.e. the range in water contents over which the soil is in a plastic state.

MEASURES OF CONSISTENCY OF COHESIVE SOILS (CLAYS) (Ref's. 2 & 3)

Very soft	N=0-1 *	C=0-250 psf	Squeezes between fingers
Soft	N=2-4	C=250-500 psf	Easily molded by finger pressure
Medium Stiff	N=5-8	C=500-1000 psf	Molded by strong finger pressure
Stiff	N=9-15	C=1000-2000 psf	Dented by strong finger pressure
Very Stiff	N=16-30	C=2000-4000 psf	Dented slightly by finger pressure
Hard	N>30	C>4000 psf	Dented slightly by a pencil point

* N = Blows per foot in the Standard Penetration Test. In cohesive soils, with the 3" diameter sampler, 140 pound weight, divide the blow count by 1.2 to get N (Ref. 4).

MEASURES OF RELATIVE DENSITY OF GRANULAR SOILS (GRAVELS, SANDS AND SILTS) (Ref's. 2 & 3)

Very Loose	N=0-4 **	RD=0-30	Easily push a 1/2" reinforcing rod by hand
Loose	N=5-10	RD=30-50	Push a 1/2" reinforcing rod by hand
Medium Dense	N=11-30	RD=50-70	Easily drive a 1/2" reinforcing rod
Dense	N=31-50	RD=70-90	Drive a 1/2" reinforcing rod 1 foot
Very Dense	N>50	RD=90-100	Drive a 1/2" reinforcing rod a few inches

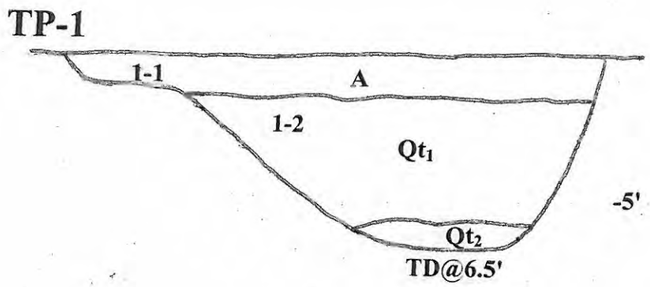
** N = Blows per foot in the Standard Penetration Test. In granular soils, with the 3" diameter sampler, 140 pound weight, divide the blow count by 2 to get N (Ref. 4). RD = Relative Density

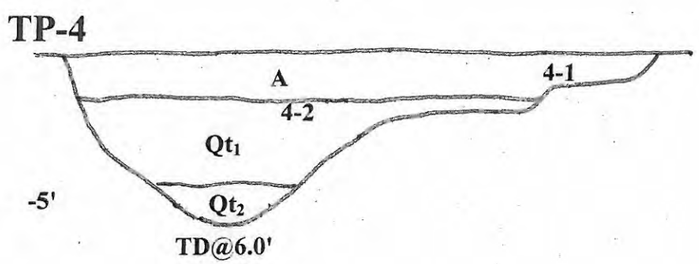
Ref. 1: ASTM Designation: D 2487-93, Standard Classification of Soils for Engineering Purposes (Unified Soils Classification System).

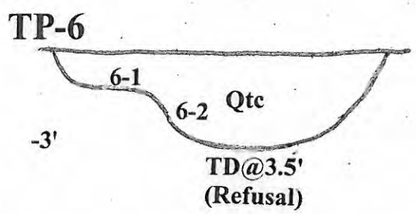
Ref. 2: Terzaghi, Karl, and Peck, Ralph B., Soil Mechanics in Engineering Practice, John Wiley & Sons, New York, 2nd Ed., 1967, pp. 30, 341, 347.

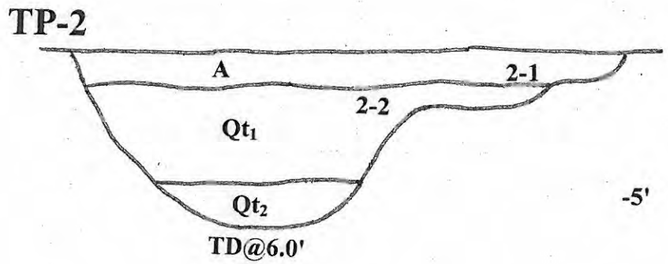
Ref. 3: Sowers, George F., Introductory Soil Mechanics and Foundations: Geotechnical Engineering, Macmillan Publishing Company, New York, 4th Ed., 1979, pp. 80,81 and 312.

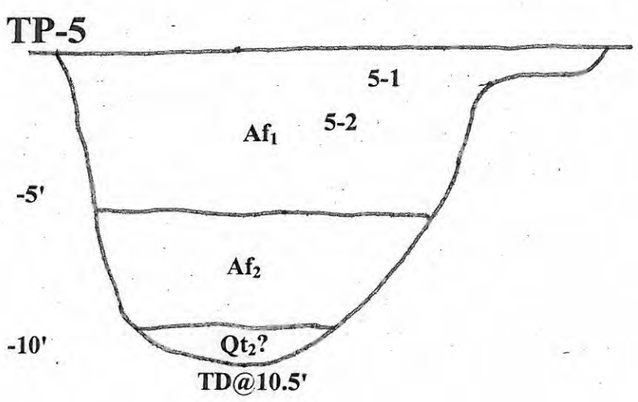
Ref. 4: Lowe, John III, and Zaccheo, Phillip F., Subsurface Explorations and Sampling Chapter 1 in "Foundation Engineering Handbook," Hsai-Yang Fang, Editor, Van Nostrand Reinhold Company, New York, 2nd Ed., 1991, p. 39.

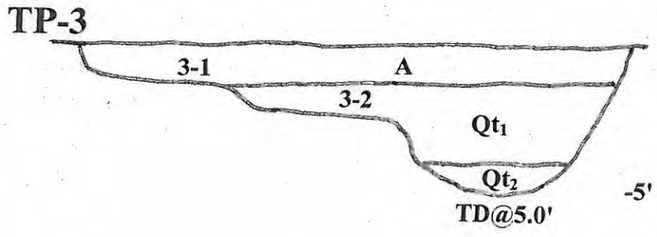












Explanation

Af_1: Artificial fill: Man made undocumented fill: Moderate gray clayey sand, loose to medium dense, moist, well graded, 35-40% fines.

Af_2: Artificial trash fill: Decomposing tree limbs & branches supported in dark gray clayey sand matrix.

A: Topsoil: Moderate brown silty SAND, loose, dry, 25-35% fines, rooted.

Qt_1: Terrace deposits (Pleistocene) – Weakly consolidated fluvial sediments composed of moderate brown silty SAND, medium dense to dense, slightly moist, well graded, 25-40% fines, trace gravel.

Qt_2: Terrace deposits (Pleistocene) – Semi-consolidated fluvial sediments composed of very pale orange silty SAND with gravel, dense to very dense, slightly moist, 15-25% fines.

Qtc: Continental deposits (Pleistocene-Pliocene (?)) – Semi-consolidated nonmarine sediments composed of very pale orange well graded SAND with gravel and cobbles, dense to very dense, slightly moist, 15-25% fines, locally cemented.

6-2: Approximate location of moisture/density test.

Scale: 1" = 5'

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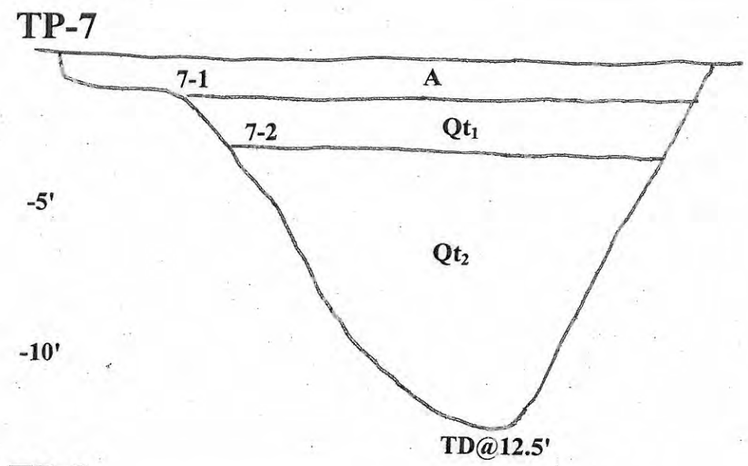
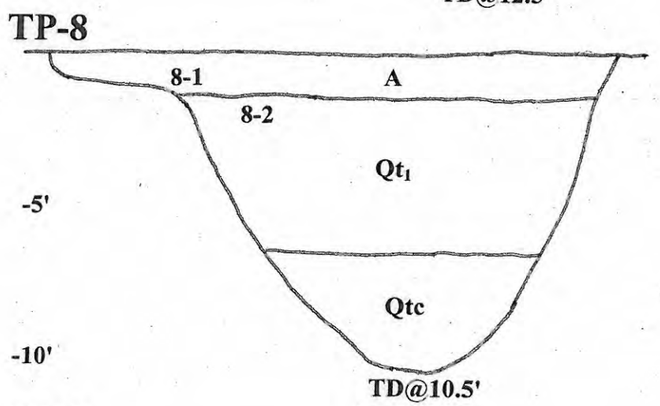
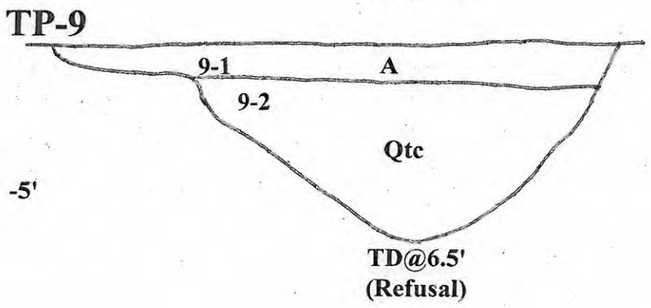
Logs of Exploratory Test Pits
TP-1 to TP-6
Riverview at Las Palmas (APN 139-211-035)
Woodridge Court
Monterey County, California

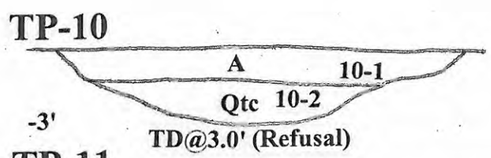
FIGURE
A3

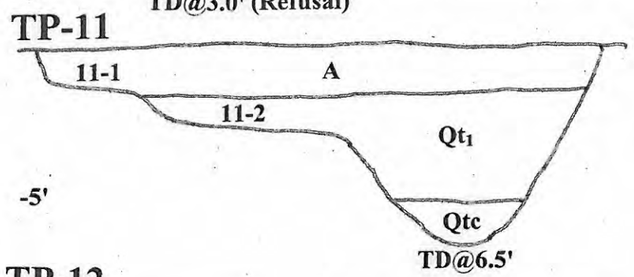
PROJECT
1272-01

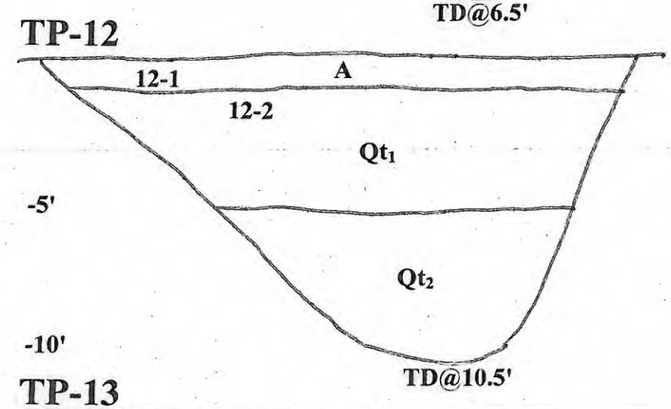


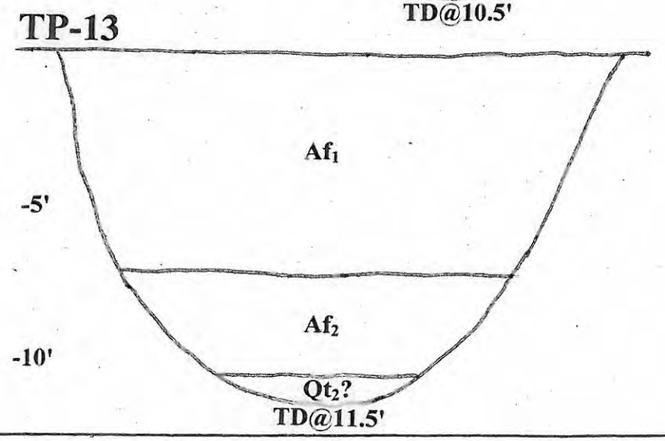












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12-2: Approximate location of moisture/density test.

Scale: 1" = 5'

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Logs of Exploratory Test Pits
TP-7 to TP-13
Riverview at Las Palmas (APN 139-211-035)
Woodridge Court
Monterey County, California

FIGURE
A4

PROJECT
1272-01

APPENDIX B

Laboratory Test Results

Table B-1
Summary of Laboratory Test Results

Sample No.	Depth (ft.)	Dry Density (pcf)	Water Content (%)
1-1	1.0-1.5	90.7	5.6
1-2	2.0-2.5	94.1	7.3
2-1	1.0-1.5	91.1	4.9
2-2	2.0-2.5	95.2	8.1
3-1	1.0-1.5	107.7	8.1
3-2	2.0-2.5	105.2	12.3
4-1	1.0-1.5	87.9	4.4
4-2	2.0-2.5	100.3	9.7
5-1	1.0-1.5	110.4	6.4
5-2	2.0-2.5	106.5	12.5
6-1	1.0-1.5	83.6	9.9
6-2	3.0-3.5	91.7	11.8
7-1	1.0-1.5	82.6	9.1
7-2	2.5-3.0	98.7	9.9
8-1	1.0-1.5	83.2	5.4
8-2	2.0-2.5	92.1	11.1
9-1	1.0-1.5	88.1	5.4
9-2	2.0-2.5	91.8	8.8
10-1	1.0-1.5	92.2	7.9
10-2	2.0-2.5	83.5	12.0
11-1	1.0-1.5	86.8	5.1
11-2	2.0-2.5	92.8	9.8
12-1	1.0-1.5	86.2	5.8
12-2	2.0-2.5	96.4	7.2

March 5, 2014 File No.: 1272-01

Summary of
Compaction Curves
(ASTM D 1557)

Sample No.	Description & (Source)	USCS	Density p.c.f.	Optimum Moisture % dry wt.
A	Brown silty SAND (TP-1 @ 0.0-2.0)	SM	129.0	8.0
D	Light brown silty SAND w/gravel (TP-9 @ 0.0-5.0)	SM	129.0	7.0

Summary of Atterberg Limits Test Results

Sample No.	Depth (ft.)	Liquid Limit	Plastic Limit	Plasticity Index
Bulk B, TP-5	0.0-5.0	17	14	3
Bulk C, TP-6	0.0-3.0	16	14	2

Summary of Sieve Analysis Test Results, Sample B (TP-5 – 0.0'-5.0')

Sieve No.	Cumulative % Retained	Cumulative % Passing
#4	0.2	99.8
#8	2.9	97.1
#16	10.3	89.7
#30	20.7	79.3
#50	35.3	64.7
#100	48.4	51.6
#200	59.9	40.1

Summary of Sieve Analysis Test Results, Sample B (TP-6 – 0.0'-3.0')

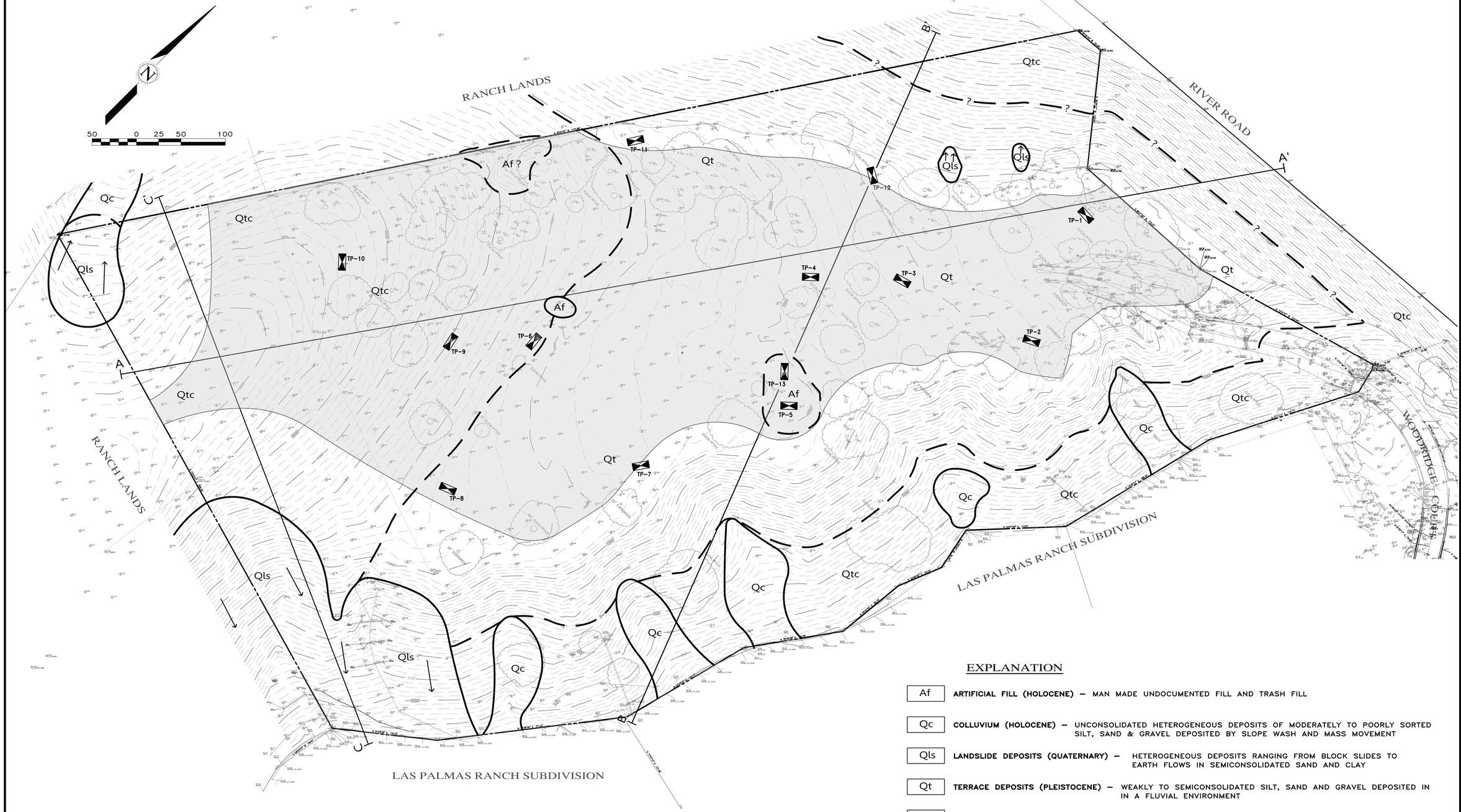
Sieve No.	Cumulative % Retained	Cumulative % Passing
#4	0.1	99.9
#8	2.6	97.4
#16	8.6	91.4
#30	18.7	81.3
#50	32.5	67.5
#100	43.1	56.9
#200	54.3	45.7

Summary of Sieve Analysis Test Results, Sample D (TP-9 – 0.0'-5.0')

Sieve No.	Cumulative % Retained	Cumulative % Passing
#4	3.4	96.6
#8	11.0	89.0
#16	23.2	76.8
#30	36.4	63.6
#50	51.6	48.4
#100	62.0	38.0
#200	73.9	26.1

Summary of Sieve Analysis Test Results, Sample E (TP-7 – 0.0'-5.0')

Sieve No.	Cumulative % Retained	Cumulative % Passing
#4	0.6	99.4
#8	4.7	95.3
#16	14.4	85.6
#30	26.3	73.7
#50	42.7	57.3
#100	57.5	42.5
#200	71.9	28.1



EXPLANATION

- **Af** — **ARTIFICIAL FILL (HOLOCENE) —** MAN MADE UNDOCUMENTED FILL AND TRASH FILL
- **Qc** — **COLLUVIUM (HOLOCENE) —** UNCONSOLIDATED HETEROGENEOUS DEPOSITS OF MODERATELY TO POORLY SORTED SILT, SAND & GRAVEL DEPOSITED BY SLOPE WASH AND MASS MOVEMENT
- **Qls** — **LANDSLIDE DEPOSITS (QUATERNARY) —** HETEROGENEOUS DEPOSITS RANGING FROM BLOCK SLIDES TO EARTH FLOWS IN SEMICONSOLIDATED SAND AND CLAY
- **Qt** — **TERRACE DEPOSITS (PLEISTOCENE) —** WEAKLY TO SEMICONSOLIDATED SILT, SAND AND GRAVEL DEPOSITED IN IN A FLUVIAL ENVIRONMENT
- **Qtc** — **CONTINENTAL DEPOSITS (PLEISTOCENE–PLIOCENE(?)) —** NONMARINE, CONSOLIDATED FINE TO COARSE GRAINED SAND WITH PEBBLE AND COBBLE GRAVEL INTERBEDS
- **CONTACT —** DASHED WHERE APPROXIMATELY LOCATED, QUERIED WHERE QUESTIONABLY LOCATED
- **LANDSLIDE —** ARROWS SHOW GENERAL DIRECTION OF MOVEMENT
- TP-13 — **TEST PIT —** APPROXIMATE LOCATION OF EXPLORATORY TEST PIT
- C — C' — **CROSS SECTION —** LOCATION OF GEOLOGIC CROSS SECTION (SEE SHEET 2)
- **GEOLOGICALLY SUITABLE BUILDING ENVELOPE**

PROFESSIONAL GEOLOGIST — BRIAN E. PAPURELLO — No. CEG 2226 — CERTIFIED ENGINEERING GEOLOGIST — Exp. 02-29-16 — STATE OF CALIFORNIA

APPROVED BY:

BRIAN E. PAPURELLO

LANDSET ENGINEERS, INC.
ENGINEERING – LAND PLANNING
SURVEYING – ENVIRONMENTAL CONSULTING
520-B CRAZY HORSE CANYON ROAD, SALINAS, CA 93907

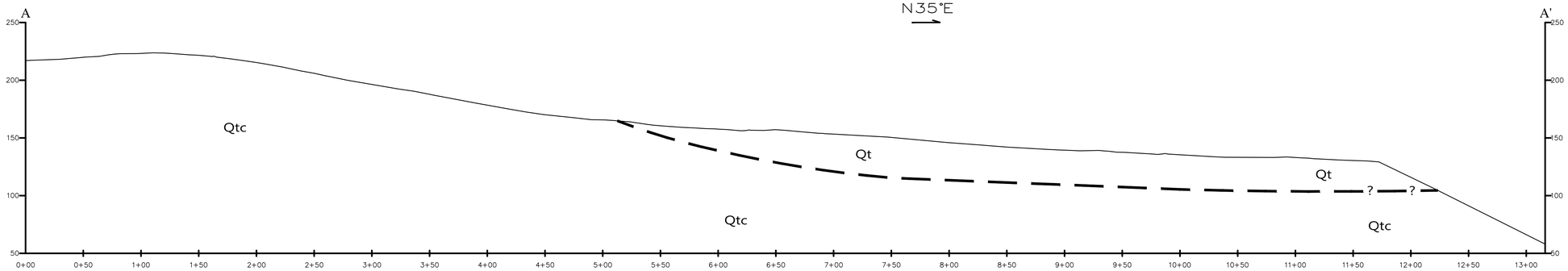
SITE GEOLOGIC MAP
OF
RIVERVIEW AT LAS PALMAS
APN: 139-211-035
MONTEREY COUNTY, CALIFORNIA
FOR
RIVER VIEW AT LAS PALMAS, LLC

SCALE: 1"=50'
DATE: FEBRUARY 2014
JOB NO. 1272-01

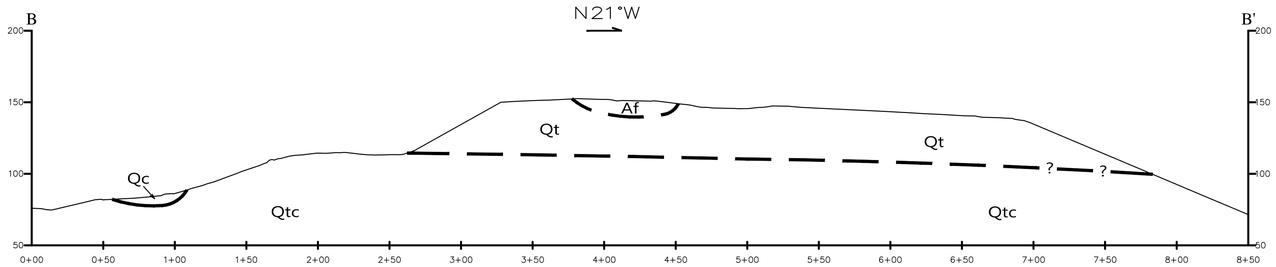
SHEET 1

OF 2 SHEETS

1272-RIVER VIEW LAS PALMAS\DWG\1272-SOILS/SHT1



SECTION A - A'
SCALE: 1"=50' H&V



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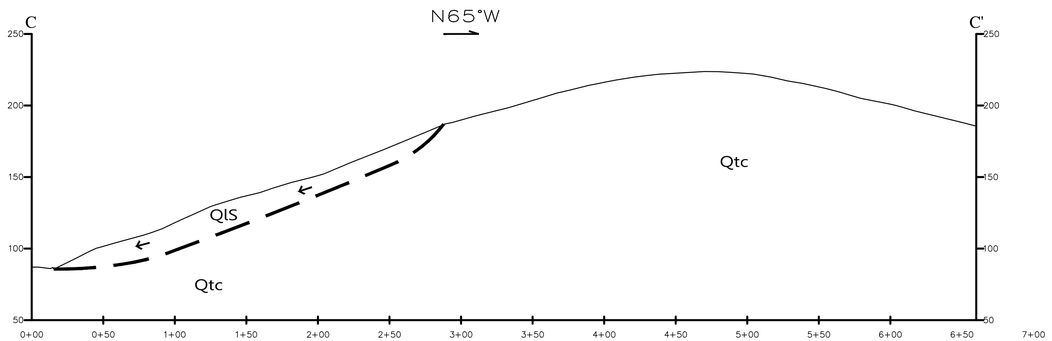
SCALE: 1"=50' H&V



SECTION C - C'
SCALE: 1"=50' H&V

EXPLANATION

Af	**ARTIFICIAL FILL (HOLOCENE)** – MAN MADE UNDOCUMENTED FILL AND TRASH FILL
Qc	**COLLUVIUM (HOLOCENE)** – UNCONSOLIDATED HETEROGENEOUS DEPOSITS OF MODERATELY TO POORLY SORTED SILT, SAND & GRAVEL DEPOSITED BY SLOPE WASH AND MASS MOVEMENT
Qls	**LANDSLIDE DEPOSITS (QUATERNARY)** – HETEROGENEOUS DEPOSITS RANGING FROM BLOCK SLIDES TO EARTH FLOWS IN SEMICONSOLIDATED SAND AND CLAY
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Qtc	**CONTINENTAL DEPOSITS (PLEISTOCENE–PLIOCENE(?))** – NONMARINE, CONSOLIDATED FINE TO COARSE GRAINED SAND WITH PEBBLE AND COBBLE GRAVEL INTERBEDS

CONTACT – DASHED WHERE APPROXIMATELY LOCATED, QUERIED WHERE QUESTIONABLY LOCATED

LANDSLIDE – ARROWS SHOW GENERAL DIRECTION OF MOVEMENT

PROFESSIONAL GEOLOGIST * BRIAN E. PAPURELLO * No. CEG 2226 * CERTIFIED ENGINEERING GEOLOGIST * Exp. 02-29-16 * STATE OF CALIFORNIA

APPROVED BY:

BRIAN E. PAPURELLO

LANDSET ENGINEERS, INC.
ENGINEERING – LAND PLANNING
SURVEYING – ENVIRONMENTAL CONSULTING
520-B CRAZY HORSE CANYON ROAD, SALINAS, CA 93907

GEOLOGIC CROSS SECTIONS " A-A', B-B' & C-C' "
OF
RIVERVIEW AT LAS PALMAS
APN: 139-211-035
MONTEREY COUNTY, CALIFORNIA
FOR
RIVER VIEW AT LAS PALMAS, LLC

SCALE: 1"=50' H&V
DATE: FEBRUARY 2014
JOB NO. 1272-01

SHEET 2
OF 2 SHEETS

APPENDIX G

CALAM CAN AND WILL SERVE LETTER

CALIFORNIA
AMERICAN WATER

California American Water – Monterey
511 Forest Lodge Rd, Suite 100
Pacific Grove, CA 93950
amwater.com

November 3, 2015

Dale Ellis
Lombardo and Associates
144 West Gabilan
Salinas, CA 93901

Owner: River View at Las Palmas

Service Address: None assigned

Assessor's Parcel Number: 139-211-035-000

To Whom It May Concern:

This letter serves as notification that the above-referenced property (the "Service Address") is located within the California American Water ("CAW") sewer service area. CAW will provide sewer service to the Service Address pursuant to the rules, regulations, and tariffs of the California Public Utilities Commission (CPUC), and in accordance with all applicable federal, state and local laws, regulations, rules, ordinances and restrictions.

A party wishing to initiate sewer service (the "Applicant") must comply with all CAW Tariff Schedules that are on file with the CPUC, as they may be amended from time to time. Among other things, the Tariff Schedules require that the Applicant submit an application to CAW, obtain all required permits and pay all required fees as a condition of initiation of service. CAW's Tariff Schedules are available on its website, www.calamwater.com. Availability of sewer service to the Service Address is subject to change before the Applicant has applied for sewer service and has received all required permits and paid all applicable fees required to initiate such service.

Sincerely,
California American Water

By: _____
Eric Sabolsice
General Manager
Central Division