

**DRAFT
ENVIRONMENTAL IMPACT REPORT**

FOR THE

**VILLAS DE CARMELO PROJECT
CARMEL, CALIFORNIA**

VOLUME I: DRAFT EIR

**Lead Agency:
MONTEREY COUNTY**



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TABLE OF CONTENTS

VOLUME I: DRAFT EIR

1.0	Introduction.....	1-1
1.1	Authorization and Purpose.....	1-1
1.2	EIR Process.....	1-1
2.0	Summary.....	2-1
2.1	Introduction.....	2-1
2.2	Summary of Project Description.....	2-1
2.3	Alternatives Evaluated in this DEIR.....	2-1
2.4	Environmentally Superior Alternative.....	2-2
2.5	Summary of Project Impacts.....	2-3
3.0	Project Description.....	3-1
3.1	Project Location and Area.....	3-1
3.2	Existing Conditions and Project Background.....	3-1
3.3	Project Site History.....	3-2
3.4	Project Objectives.....	3-2
3.5	Project Characteristics – Villas de Carmelo Project.....	3-5
3.6	Required Permits and Approvals.....	3-12
4.0	Environmental Setting, Impacts and Mitigation Measures.....	4.0-1
4.1	Aesthetics.....	4.1-1
4.2	Agricultural Resources.....	4.2-1
4.3	Air Quality.....	4.3-1
4.4	Biological Resources.....	4.4-1
4.5	Cultural Resources.....	4.5-1
4.6	Geology, Soils, and Mineral Resources.....	4.6-1
4.7	Hazards and Hazardous Materials.....	4.7-1
4.8	Hydrology and Water Quality.....	4.8-1
4.9	Land Use and Planning.....	4.9-1
4.10	Noise.....	4.10-1
4.11	Population and Housing.....	4.11-1
4.12	Public Services and Recreation.....	4.12-1
4.13	Traffic and Circulation.....	4.13-1
4.14	Utilities and Service Systems.....	4.14-1

5.0	CEQA Considerations	5-1
5.1	Growth Inducement.....	5-1
5.2	Cumulative Impacts	5-2
5.3	Significant Unavoidable Impacts	5-4
5.4	Irreversible Environmental Changes.....	5-4
6.0	Alternatives.....	6-1
6.1	Introduction.....	6-1
6.2	Summary of Project Objectives and Significant Impacts.....	6-1
6.3	Analysis of Excluded Alternatives.....	6-2
6.4	Analysis of Alternatives Selected for Further Review.....	6-4
6.4.1	No Project Alternative	6-4
6.4.2	Alternative Land Use – Visitor Serving Development	6-6
6.4.3	Existing Zoning Project	6-8
6.4.4	Applicant’s Modified Design Project	6-11
6.4.5	Reduced Density Project.....	6-13
6.4.6	Increased Percentage of Low and Moderate Income Units	6-15
6.5	Environmentally Superior Alternative	6-18
7.0	References	7-1
7.1	Report Preparation	7-1
7.2	Peer Review Consultants.....	7-1
7.3	Persons and Agencies Contacted	7-1
7.4	Literature Cited	7-2

LIST OF FIGURES

Figure 1-1	Public Comment Instructions	1-3
Figure 3-1	Regional Map	3-4
Figure 3-2	Vicinity Map	3-5
Figure 3-3	Project Layout Plan	3-7
Figure 3-4	Existing Project Site	3-8
Figure 3-5	Land Use Zoning Map.....	3-9
Figure 4.1-1	Visual Assessment Locations.....	4.1-3
Figure 4.1-2A	Site Photos.....	4.1-4
Figure 4.1-2B	Site Photos.....	4.1-5
Figure 4.1-2C	Site Photos.....	4.1-6
Figure 4.1-2D	Site Photos.....	4.1-7
Figure 4.1-3A	Visual Assessment View One With Proposed Landscaping	4.1-12
Figure 4.1-3B	Visual Assessment View One Without Proposed Landscaping	4.1-13

Figure 4.1-3C	Visual Assessment View Two With Proposed Landscaping	4.1-14
Figure 4.1-3D	Visual Assessment View Two Without Proposed Landscaping	4.1-15
Figure 4.1-3E	Visual Assessment View Three With Proposed Landscaping	4.1-16
Figure 4.1-3F	Visual Assessment View Three Without Proposed Landscaping	4.1-17
Figure 4.1-3G	Visual Assessment View Four With Proposed Landscaping	4.1-18
Figure 4.1-3H	Visual Assessment View Four Without Proposed Landscaping	4.1-29
Figure 4.1-3I	Visual Assessment View Five With Proposed Landscaping.....	4.1-20
Figure 4.1-3J	Visual Assessment View Five Without Proposed Landscaping.....	4.1-21
Figure 4.1-3K	Visual Assessment View Six With Proposed Landscaping	4.1-22
Figure 4.1-3L	Visual Assessment View Six Without Proposed Landscaping	4.1-23
Figure 4.1-4A	Conceptual Landscape Plan	4.1-24
Figure 4.1-4B	Proposed Landscape Screening	4.1-25
Figure 4.1-4C	Highway 1 Landscaping	4.1-26
Figure 4.1-4D	Valley Way Landscaping	4.1-27
Figure 4.1-5	Lighting Plan	4.1-32
Figure 4.4-1A	Representative Site Photos	4.4-10
Figure 4.4-1B	Representative Site Photos	4.4-11
Figure 4.4-1C	Representative Site Photos	4.4-12
Figure 4.4-2	California Natural Diversity Database Reported Occurrences of Special-Status Species.....	4.4-16
Figure 4.5-1	Past and Current Site Photos	4.5-6
Figure 4.5-2	Past and Current Site Photos	4.5-7
Figure 4.5-3	Past and Current Site Photos	4.5-8
Figure 4.5-4	Past and Current Site Photos	4.5-9
Figure 4.5-5	Site Demolition Plan	4.5-17
Figure 4.5-6	Existing and Proposed Elevations for Historic Resource.....	4.5-18
Figure 4.5-7	Existing and Proposed Elevations for Historic Resource.....	4.5-19
Figure 4.5-8	Existing and Proposed Elevations for Historic Resource.....	4.5-20
Figure 4.5-9	Existing and Proposed Elevations for Historic Resource.....	4.5-21
Figure 4.5-10	Existing and Proposed Elevations for Historic Resource.....	4.5-22
Figure 4.5-11	Existing and Proposed Elevations for Historic Resource.....	4.5-23
Figure 4.6-1	Site Trenching	4.6-2
Figure 4.6-2	Grading Plan.....	4.6-12
Figure 4.6-3	Cut and Fill Plan.....	4.6-13
Figure 4.6-4	Erosion Control Plan	4.6-14
Figure 4.8-1	Stormwater Control Plan.....	4.8-6
Figure 4.8-2	Site Drainage	4.8-8
Figure 4.9-1	Dwelling Coverage.....	4.9-7
Figure 4.10-1	Noise Measurement Locations	4.10-5
Figure 4.10-2	Daily Trend in Noise Levels at Site 2H	4.10-6
Figure 4.13-1	Roadway Network.....	4.13-2
Figure 4.13-2	Intersection Levels of Service Summary Table	4.13-8
Figure 4.13-3	Road Segment Levels of Service Table	4.13-9
Figure 4.13-4	Historic Site Trip Generation	4.13-14
Figure 4.13-5	Project Trip Distribution and Assignment.....	4.13-15
Figure 4.13-6	Project Site Plan	4.13-18
Figure 4.13-7	Routing Plan.....	4.13-20
Figure 4.13-8	Cumulative Projects	4.13-24
Figure 4.13-9	Cumulative Trip Generation.....	4.13-25
Figure 4.13-10A	Cumulative Conditions.....	4.13-26
Figure 4.13-10B	Cumulative Conditions.....	4.13-27

Figure 4.13-10C	Cumulative Conditions.....	4.13-28
Figure 4.14-1	Utility Plan	4.14-3

LIST OF TABLES

Table 2.5-1	Summary of Significant Environmental Impacts and Mitigations	2-4
Table 3.5-1	Residential Types and Square Footage	3-5
Table 3.5-2	Unit Count by Type and Location.....	3-6
Table 4.3-1	Overview of Key Pollutants in the Project Area	4.3-3
Table 4.3-2	Federal and State Ambient Air Quality Standards	4.3-4
Table 4.3-3	2006 Estimated Annual Average Emissions of Selected Air Pollutants for the NCAAB and Monterey County (NCCAB Portion)	4.3-10
Table 4.3-4	2004 Estimated Daily Average Emissions of Selected Toxic Air Contaminants for Monterey County	4.3-11
Table 4.3-5	Highest Measured Air Pollutant Concentrations.....	4.3-12
Table 4.3-6	Worst Case Construction Emission Estimates	4.3-20
Table 4.3-7	Project Operational Emissions - Summer and Winter	4.3-24
Table 4.3-8	Worst-Case Operational Project Emissions of Greenhouse Gases and Carbon Dioxide Equivalents	4.3-27
Table 4.4-1	Tree Impact Table	4.4-21
Table 4.9-1	Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan Policies	4.9-9
Table 4.10-1	Typical Noise Levels in the Environment.....	4.10-2
Table 4.10-2	Summary of Short-Term Noise Measurement Data.....	4.10-4
Table 4.10-3	Land Use Compatibility Criteria for External Noise.....	4.10-8
Table 4.10-4	Typical Noise Level Range at 50 Feet from Construction Community Sites	4.10-12
Table 4.11-1	Current and Projected Population Summary by Jurisdiction	4.11-1
Table 4.11-2	Housing Stock In Monterey County.....	4.11-2
Table 4.11-3	Residential Potential for Villas de Carmelo Under Current and Proposed Zoning...	4.11-3
Table 4.12-1	Project Student Generation.....	4.12-6
Table 4.14-1	Potential Water Use Credit for Convalescent Hospital Site Estimated by MPWMD Under Rule 25.5	4.14-9
Table 4.14-2	Water Demand Projections for Housing and Gym.....	4.14-10
Table 4.14-3	Water Credit Summary Under MPWMD Rule 25.5 and Monterey County Ordinance 3310	4.14-11
Table 5.2-1	Probable Future Projects Located in the Project Vicinity to be Considered in the Cumulative Analysis	5-3
Table 6.4-1	Comparison of Impacts – Project Alternatives.....	6-18

VOLUME II: APPENDICES

- Appendix A. Notice of Preparation and Comments on the Notice of Preparation (July 11, 2008).
- Appendix B. The Warner Group (September 9, 2008) Building Elevations.
- Appendix C. Air Quality Documents
- C-1. AMBAG (October 18, 2008) Air Quality Consistency Letter.
 - C-2. Denise Duffy & Associates (December 5, 2008) Urbemis 2007 v 9.2.4 model run, California Climate Action Registry, General Reporting Protocol, version 3, April 2008.
- Appendix D. Biological Documents
- D-1. Zander Associates (December 2007) Biological Resources Assessment Former Carmel Convalescent Hospital Site, Carmel, California.
 - D-2. Zander Associates (July 29, 2008) Additional Information Biological Resources Assessment Carmel Convalescent Hospital Site, Carmel, California.
 - D-3. Zander Associates (May 14, 2008) Spring Plant Survey Carmel Convalescent Hospital, Carmel, California.
 - D-4. Forest City Consulting (August 28, 2008) Forest Management Plan for Parcels APNs 009-061-002, 009-061-003, 009-061-005.
 - D-5. Zander Associates (September 24, 2008) ESHA Evaluation at Villas de Carmelo.
 - D-6. Forest City Consulting (September 15, 2008) Letter: Response to Coastal Commission Comment.
- Appendix E. Archaeological Consulting (November 20, 2006) Preliminary Archaeological Reconnaissance of Assessor's Parcels 009-061-002, -003, & -005 in Carmel, Monterey County, California.
- Appendix F. Historical Resources Documents
- F-1. JRP Historical Consulting, LLC (September 6, 2008) CEQA Impacts Analysis and Proposed Mitigation Report for the former Peninsula Community Hospital, Monterey County, California.
 - F-2. JRP Historical Consulting, LLC (November 19, 2008) Letter to Denise Duffy.
- Appendix G. Geotechnical Documents
- G-1. O'Brien & Gere (November 2007) Geotechnical Assessment, Proposed Villas de Carmelo Valley Way and Highway 1 Carmel, California.
 - G-2. O'Brien & Gere (December 2007) Geological Fault Investigation, Proposed Villas de Carmelo Valley Way and Highway 1 Carmel, California.
 - G-3. O'Brien & Gere (August 29, 2008) Geologic Peer Review Response Supplemental Investigation Report.
- Appendix H. CapRock Geology, Inc. (October 13, 2006) Phase I Environmental Site Assessment Former Carmel Convalescent Hospital 24945 Valley Way Carmel, CA APN 009061-02,-03,-05.
- Appendix I. Drainage Documents
- I-1. WWD Engineering (September 30, 2008) Preliminary Drainage Report for Villas de Carmelo, Carmel, CA 93921, 4th Revision.
 - I-2. WWD Engineering (August 18, 2008) Clarifications to Preliminary Drainage Report.

Appendix J. Noise Documents

- J-1. Brown & Buntin Associates, Inc (September 16, 2008) Revised Acoustical Analysis Villas de Carmelo, Monterey County, California.
- J-2. Illingworth & Rodkin, Inc (January 29, 2009) Villas de Carmelo, Monterey County, CA, Environmental Noise Assessment (Revised).

Appendix K. Higgins Associates, (September 4, 2008) Villas de Carmelo Monterey County, California, Traffic Impact Analysis, Draft Report.

Appendix L. Water Usage Documents

- L-1. MPWMD (February 6, 2008) Potential Water Use Credit for Carmel Convalescent Hospital.
- L-2. MPWMD Water Release Forms and Water Permit Applications.

Appendix M. City of Carmel-by-the-Sea (January 2007) Initial Study and Negative Declaration Leidig/Carmel Convalescent Hospital Annexation Project.

Appendix N. Applicant's Modified Design Project.

- N-1. WWD Engineering (October 8, 2008) Alternative Plan, Site Plan.
- N-2. WWD Engineering (October 8, 2008) Alternative Plan, Grading Plan.
- N-3. WWD Engineering (October 8, 2008) Alternative Plan, Demolition Plan.
- N-4. The Warner Group (October 27, 2008) Alternative Plan, Units 1-8, 12-13 Concept Floor Plans.
- N-5. The Warner Group (October 27, 2008) Alternative Plan, Units 1-8, 12-13 Concept Elevations, North and East.
- N-6. The Warner Group (October 27, 2008) Alternative Plan, Units 1-8, 12-13 Concept Elevations, South and West.
- N-7. WWD Engineering (October 20, 2008) Preliminary Drainage Report for Redesigned Affordable Housing Alternative Villas de Carmelo, Carmel, CA.

LIST OF ACRONYMS

AADT	Average Annual Daily Traffic	DBH	Diameter at Breast Height
ACM	Asbestos Containing Material	DD&A	Denise Duffy & Associates
ACOE	Army Corps of Engineers	DEIR	Draft Environmental Impact Report
ADT	Average Daily Traffic	DOF	Department of Finance
AFY	Acre-feet per year	DOT	Department of Transportation
AMBAG	Association of Monterey Bay Area Governments	DPM	Diesel Particulate Matter
AQMP	Air Quality Management Plan	DRRP	Diesel Risk Reduction Plan
AST	Above-ground Storage Tank	EIR	Environmental Impact Report
ATCM	Air Toxic Control Measures	EPA	Environmental Protection Agency
		ESA	Endangered Species Act
BACT	Best Available Control Technology	ESHA	Environmentally Sensitive Habitat Areas
BMPs	Best Management Practices		
CAA	Federal Clean Air Act	FEIR	Final Environmental Impact Report
CAAQS	California Ambient Air Quality Standards	Fisheries	National Oceanic and Atmospheric Administration
CAL FIRE	California Department of Forestry and Fire Protection	FMMP	Farmland Mapping and Monitoring Program
Cal-Am	California American Water Company	FMP	Forest Management Plan
CAPCOA	California Air Pollution Control Officers Association	ft	feet
CAR	California Climate Action Registry	GCC	Global Climate Change
CARB	California Air Resources Board	GHG	Greenhouse Gases
CAT	Climate Action Team	gpm	Gallons per minute
CDFG	California Department of Fish & Game	HABS	Historic American Building Survey
CEC	California Energy Commission	HAER	Historic American Engineering Record
CEQA	California Environmental Quality Act	HAPS	Hazardous Air Pollutants
CERCLA	Comprehensive Environmental Response Compensation and Liability Act	HCM	Highway Capacity Manual
CESA	California Endangered Species Act	HDR	High Density Residential
CFPD	Cypress Fire Protection District	hp	horsepower
CFR	Code of Federal Regulations	HSC	Health and Safety Code
cfs	cubic feet per second	IPCC	Intergovernmental Panel on Climate Change
CIP	Coastal Implementation Plan	IS	Initial Study
CNDDB	California Natural Diversity Database	ITE	Institute of Transportation Engineers
CNFS	California Native Plant Society	IUCN	International Union for Conservation of Nature
CO	Carbon monoxide		
CO ₂ e	Carbon dioxide equivalents	lbs	pounds
CUSD	Carmel Unified School District	LUST	Leaking Underground Storage Tank
CWA	Clean Water Act		
CY	Cubic Yards	MBTA	Migratory Bird Treaty Act

MBUAPCD	Monterey Bay Unified Air Pollution Control District	RWQCB	Regional Water Quality Control Board
MCPD	Monterey County Planning Department	SOI	Secretary of Interior
MDR	Medium Density Residential	SWPPP	Storm Water Pollution Prevention Plan
MRSWMP	Monterey Regional Storm Water Management Program		
MRWPCA	Monterey Regional Water Pollution Control Agency	TACS	Toxic Air Contaminants
MS4s	Municipal Separate Storm Sewer Systems	TAMC	Transportation Agency of Monterey County
		TIRE	Traffic Infusion on Residential Environment
NAAQS	National Ambient Air Quality Standards	TRU	Transportation Refrigeration Units
NCCAB	North Central Coast Air Basin	TSD	Technical Support Document
NESHAP	National Emissions Standards for Hazardous Air Pollutants	TWSC	Two-way stop-controlled
NESHAPS	National Emissions Standards for Hazardous Air Pollutants	USDA	U.S. Department of Agriculture
NOAA		USFWS	U.S. Fish and Wildlife Service
NOP	Notice of Preparation	USGS	U.S. Geological Survey
NO _x	Nitrogen oxides	UST	Underground Storage Tank
NPDES	National Pollutant Discharge Elimination System	V/C	Volume to Capacity
NPPA	California Native Plant Protection Act	VOC	Volatile Organic Compounds
NRCS	Natural Resources Conservation Service	µg/m ³	micrograms per cubic meter
O ₃	Ozone		
OEHHA	Office of Environmental Health Hazard Assessment		
OHW	Ordinary High Water		
OPR	Office of Planning and Research		
OSHA	Occupational Safety & Health Administration		
PM ₁₀	Respirable Particulate Matter		
PM _{2.5}	Fine Particulate Matter		
PMP	Preservation and Monitoring Plan		
ppm	parts per million		
PUC	Public Utilities Commission		
RCRA	Resources Conservation & Recovery Act		
RELs	Reference Exposure Levels		
ROG	Reactive Organic Gases		
RRP	Risk Reduction Plan		
RTP	Regional Transportation Plan		
RWQCB	Regional Water Quality Control Board		

1.0 INTRODUCTION

1.1 AUTHORIZATION AND PURPOSE

This document is an Environmental Impact Report (EIR) for the proposed Villas de Carmelo project (project), prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 and CEQA Guidelines, as amended. This Draft EIR (or DEIR) has been prepared by Denise Duffy and Associates, Inc. (DD&A) for Monterey County (County) as the "Lead Agency," in consultation with the appropriate local, regional, and state agencies.

The purpose of the Draft EIR is to inform the public and decision makers of the significant environmental effects/impacts of the project, identify possible ways to minimize the significant effects, and describe reasonable alternatives that support the objectives of the project. As defined by the CEQA Guidelines, Section 15382, "significant effect on the environment" means:

“... a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”

This Draft EIR addresses implementation of the Villas de Carmelo project on a 3.68-acre property at 24945 Valley Way in the unincorporated Coastal Zone of Monterey County, bordered by the city of Carmel-by-the-Sea. The project site is bounded to the east by Highway 1 and to the west by Valley Way. Areas of unincorporated Monterey County border the northern and southern boundaries of the project site. The easternmost boundary of Carmel-by-the-Sea abuts the western portion of the project site. The project consists of the redevelopment of the former Carmel Convalescent Hospital site, proposing the rehabilitation and adaptive reuse of most of the existing hospital structure and demolition of two existing ancillary structures. Implementation of the project would involve a standard subdivision to convert 10,350 square feet of the existing hospital structure into nine (9) condominium units and construction of 37 additional condominium units in 10 to-be-constructed buildings, for a total of 46 condominium units. The project would include common space for underground and surface parking, a recreation room, gym, and storage facilities. The project entitlements will include, but not be limited to, Local Coastal Program/Land Use Plan Amendment, Zoning Amendment, Coastal Development Permit, and Tentative Subdivision Map approval.

1.2 EIR PROCESS

CEQA Guidelines require preparation of an EIR when a Lead Agency determines that there is evidence that a project may have a significant effect on the environment. The need to prepare an EIR for the project was established by Monterey County as a result of preliminary evaluation of the likely environmental effects of the project. This Draft EIR was prepared to inform the public of the significant environmental effects of the proposed project, identify possible ways to minimize the significant effects, and describe a reasonable range of project alternatives.

The County of Monterey, as Lead Agency, notified all responsible and trustee agencies, interested groups, and individuals that an EIR was required for the proposed project. The County of Monterey used the following methods to solicit input during the preparation of the DEIR:

- A Notice of Preparation (NOP) was filed with the State Clearinghouse on July 11, 2008. The California State Clearinghouse assigned the proposed EIR Clearinghouse Number #2008071058.

- In addition to state agency distribution through the Clearinghouse and in accordance with the requirements of CEQA, Monterey County, acting through the Monterey County Planning Department, circulated the NOP from July 11-August 11, 2008 for the required 30-day review period to responsible and trustee agencies, as well as interested groups, organizations, and individuals.
- The County also conducted a public scoping meeting on July 23, 2008 to solicit input on the EIR. All comments received were considered during the preparation of this DEIR. The NOP and comments received in response to the NOP are presented in **Appendix A**.

This DEIR will be circulated for agency and public review during a 45-day public review period (see **Figure 1.1 Public Comment Instructions**). Comments received by the County on the DEIR will be reviewed and responses to comments will be provided in the Final EIR (FEIR). Written responses to comments will be sent to those public agencies that provided timely comments on the DEIR at least 10 days prior to the certification hearing, at which the Lead Agency will consider whether or not to certify the FEIR and approve the proposed project.

The County of Monterey, as Lead Agency, will review and consider the FEIR. If the County finds that the FEIR reflects the County's independent judgment and has been prepared in accordance with CEQA and the CEQA Guidelines, the County will certify the adequacy and completeness of the FEIR. Although the EIR does not control the Lead Agency's ultimate decision on the project, the County must consider the information in the EIR and respond to each significant effect identified in the EIR. A decision to approve the project would be accompanied by written findings prepared in accordance with CEQA Guidelines Section 15091, and if applicable, Section 15093¹. For each significant effect identified in the FEIR, the findings will describe whether it can be reduced to a less-than-significant level through feasible mitigation measures and if not, why there are no feasible mitigation measures or alternatives to reduce the effect to a less-than-significant level. No aspect of the proposed project will be approved until after the FEIR is considered.

State law requires that a public agency adopt a monitoring program for mitigation measures that have been incorporated into the approved project to reduce or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program (MMRP), as required by Section 15097 of the CEQA Guidelines, describes how each of the mitigation measures will be implemented and provides a mechanism for monitoring and/or reporting on their implementation. The purpose of the MMRP is to ensure compliance with environmental mitigation during project implementation and operation. A monitoring program will be included in the FEIR.

If the lead agency approves the project with associated significant effects on the environment that cannot be feasibly avoided or reduced to less-than-significant levels, the County must also adopt a Statement of Overriding Considerations that explain the benefits that outweigh the significant unavoidable environmental effects, in accordance with Section 15093 of the CEQA Guidelines.

¹ If significant adverse environmental effects identified in the EIR, approval of the project must be accompanied by written findings, as follows:

- A. Changes or alterations have been required in, or incorporated into, such project that mitigate or avoid the significant environmental effects thereof as identified in the completed EIR.
- B. Such changes or alterations are within the responsibility and jurisdictions of another public agency and such changes have been adopted by such other agency, or can and should be adopted by such other agency.
- C. Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

ENVIRONMENTAL IMPACT REPORTS

This Draft EIR has been distributed to responsible and trustee agencies, other affected agencies, surrounding cities, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b). The Notice of Completion of the Draft EIR has also been distributed as required by CEQA. During the 45-day public review period, the Draft EIR, including the technical appendices, is available for review at the County of Monterey.

All written comments on the Draft EIR should be addressed to:

County of Monterey
Resource Management Agency – Planning Department
Attn: Mike Novo, Director of Planning
168 West Alisal, 2nd Floor
Salinas, CA 93901

We welcome your comments during the 45-day public review period. You may submit your comments in hard copy to the name and address above. The Department also accepts comments via e-mail or facsimile but requests you follow these instructions to ensure that the Department has received your comments.

To submit your comments by e-mail, please send a complete document including all attachments to:

ceqacomment@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 a 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 comments, then please submit a hard copy of your comments to ensure inclusion in the environmental record or contact the Department to ensure the Department 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 Department to confirm that the entire document was received.

Upon completion of the 45-day public review period, written responses to all significant environmental issues raised will be addressed in the Final EIR. The Final EIR will be made available for review at least 10 days prior to the public hearing before the final decision-making body, at which time the certification of the Final EIR will be considered. These environmental comments and their responses will be included as part of the environmental record for consideration by decision-makers for the project.

Public Comment Instructions

Figure
1-1

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2.0 SUMMARY

2.1 INTRODUCTION

This summary provides a brief description of the proposed project, project alternatives, and the significant impacts identified during the environmental analysis. Responsibility for implementation of mitigation measures is with the project applicant, unless otherwise noted. This summary is intended as an overview and should be used in conjunction with a thorough review of the DEIR. The text of this DEIR, including figures, tables, and appendices, serves as the basis for this summary.

2.2 SUMMARY OF PROJECT DESCRIPTION

The Villas de Carmelo project would be located at 24945 Valley Way on a 3.68-acre site in the unincorporated Coastal Zone of Monterey County bordered by the city of Carmel-by-the-Sea (See **Figure 3-2, Vicinity Map**). The project site is located roughly 90 miles south of San Francisco. The project site is bounded to the southwest by Valley Way and to the east by State Route 1 (Highway 1) and southeast by a private drive leading to a four-building apartment complex. Single-family homes are located on the northern and northwestern borders of the property.

Full implementation of the Villas de Carmelo project would introduce a new residential village community consisting of 46 condominium units with a mix of market rate and affordable housing. New housing would include 33 market rate condominiums, 9 affordable housing units, and 4 workforce housing units. The proposed project would create a residential village on the 3.68-acre project site with the existing hospital structure as the focal point of the project. Implementation of the project would involve a standard subdivision to convert 10,350 square feet of the existing hospital structure into 9 condominium units and construction of 37 additional condominium units in 10 to-be-constructed buildings, for a total of 46 condominium units. The project would include common residential village space for underground and surface parking, a recreation room, and storage facilities. The project entitlements will include, but not be limited to, Local Coastal Plan Designation Amendment, Zoning Amendment, Coastal Development Permit, Housing Element Amendment, Tentative Subdivision Map, and Development Agreement approval to allow for the proposed development. A full project description is provided in **Section 3.0** of this DEIR.

2.3 ALTERNATIVES EVALUATED IN THIS DEIR

CEQA Guidelines require that an EIR describe and evaluate a range of project alternatives that could eliminate significant adverse project impacts or reduce them to a less-than-significant level. The alternatives to the proposed project that are analyzed in the Draft EIR are summarized below. The **Alternatives** Section in the Draft EIR fully describes the alternative and discusses whether the alternative meets the identified project objectives.

In compliance with CEQA, this Draft EIR evaluates the comparative advantages and disadvantages of the following five alternatives:

- No Project
- Alternative Land Use – Visitor Serving Development
- Existing Zoning Project Alternative
- Applicant’s Modified Design Project Alternative
- Reduced Density Project Alternative

- Higher Percentage Low Income Project Alternative

No Project: The No Project/No Development Alternative consists of the environmental conditions that currently exist with no future development on the project site; this represents a “no development” scenario in which the site is left in its current condition (per CEQA Guidelines Section 15126.6(e)(3)). The project site would remain as currently described in the existing setting under each issue area discussed in this DEIR.

Alternative Land Use – Visitor Serving Development: The Alternative Land Use – Visitor Serving Development consists of expanding visitor serving development with the state’s coastal zone. It could be reasonably assumed that a visitor serving development on the project site would consist of the establishment of a hotel complex on the property.

Existing Zoning: The Existing Zoning Alternative consists of developing the project site with residential uses as proposed; however, under the existing zoning for the site of MDR/2. This alternative would result in the construction of 7 single-family residences consistent with the current land use plan and zoning designation for the project site.

Alternate Design: As proposed by the Project Applicant, the Modified Design Alternative for the Villas de Carmelo Project would consist of the development of 46 units with the same mix of affordable moderate income, workforce, and market rate. This alternative consists of modifying the project design to relocate Units 5-8 and 12-13, currently located in the southeast corner of the project site along Highway 1. These units would be placed within a building located in the northeast portion of the site, along Highway 1 in the area proposed under the existing site plan for Units 1-4.

Reduced Density: The Reduced Density Alternative consists of reducing development on the project site to avoid or lessen the proposed project’s significant unmitigable visual impacts. The Reduced Project Alternative consists of reducing the project to a residential multi-family development of 37 units.

Increased Percentage of Low Income Housing: Under this Alternative, the project would provide a higher percentage of affordable units resulting in 35% of the total development offering affordable moderate income housing. This Alternative would result in:

- 16 Units: Affordable moderate income including workforce units and
- 30 Units: market rate residences.

In addition to the six alternatives listed above, two other alternatives were considered but not analyzed in detail due to their infeasibility, and the alternatives were subsequently rejected from further consideration. These alternatives included an alternative location and development under an annexation to the city of Carmel-by-the-Sea.

2.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative to the proposed project be specified, if one is identified. In general, the environmentally superior alternative is supposed to minimize adverse impacts to the project site and surrounding environment while achieving the basic objectives of the project. The "No Project" alternative could be considered the environmentally superior alternative because all adverse impacts associated with project construction and operation would be avoided. However, CEQA Guidelines section 15126.6(e)(2) states: “If the environmentally superior alternative is the “no project”

alternative, the DEIR shall also identify an environmentally superior alternative among the other alternatives.

Based on the analysis in the alternatives discussion, several design changes could reduce the environmental impacts of the project as proposed. The Alternative Land Use – Visitor Serving Development Alternative would involve the construction of a hotel facility on the project site. This Alternative would have similar impacts as the proposed project in all areas aside from its significant increase to traffic in the project site's vicinity. This Alternative would also be inconsistent with the surrounding land use of the project site and would not meet a primary project objective of the establishment of a residential community on the project site. The Modified Design alternative would avoid the significant unavoidable impact associated with the development of buildings within the Highway 1 scenic corridor that would adversely impact this scenic resource, however would result in impacts similar to the project as proposed. The Existing Zoning Alternative consists of developing the project site with residential uses as proposed, but under the existing zoning for the site of MDR/2. This Alternative would avoid the unmitigable impact of the proposed project to a scenic resource. However, this Alternative would not be capable of meeting the majority of the project objectives, including a principal project objective of the adaptive re-use of a historic building and the establishment of a residential community on the project site. The Increased Percentage of Low and Moderate Income Units Alternative would increase the amount of low and moderate income units amongst the residential units proposed for construction on the project site; however, would otherwise result in the same impacts as the proposed project. The Reduced Project Alternative would not only avoid the unmitigable impact upon a scenic resource by reducing construction within the Highway 1 viewshed but would also reduce impacts in most other areas by decreasing the development density and building footprint on the project site.

Therefore, the environmentally superior alternative would be the Reduced Project Alternative since this alternative would reduce impacts in most areas by decreasing the development densities and footprint on the project site. For further discussion of alternatives to the proposed project see **Section 6-0 Alternatives**.

2.5 SUMMARY OF PROJECT IMPACTS

A summary of significant project impacts and mitigation measures are provided in **Table 2.5-1**. Mitigation measures have been identified to either avoid the impact or reduce the level of significance. The significance after mitigation implementation is also stated.

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Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
4.1 Aesthetics		
Development of the proposed project would result in the removal of existing trees and alteration of the natural landscaping of the project site and the creation of new light sources, resulting in a potential impact to a scenic vista.	<p><i>4.1-1</i> In order to minimize potential aesthetic-related impacts due to the removal of existing trees and vegetation and the creation of light sources, the project proponent shall submit a detailed Replanting and Landscaping Plan that provides adequate screening along the borders of the project site prior to the issuance of any grading and/or building permit. The project site's historic landscaping shall be retained to the maximum extent feasible. The Replanting and Landscaping Plan shall be in accordance with mitigation measures 4.4-1 and 4.4-2 as defined in Section 4.4 Biological Resources of this DEIR. All replanting and landscaping shall be in conformance with the design and implementation measures contained in the Carmel Area Land Use Plan and the Monterey County Coastal Implementation Plan. The Replanting and Landscaping plan shall include specific planting recommendations (species, size, placement, etc.), prescribe care and maintenance for all plantings, require periodic monitoring of the site for a minimum of three years, and require annual reporting during the three year period on replanting success. The landscape architect shall submit bi-annual monitoring reports to the Monterey County Planning Department after each six months detailing the condition of the project site's landscaping. Adaptive management techniques and/or an extension of the monitoring period shall be required in the event that replanting is not successful during the initial (five year) monitoring period. If during the course of monitoring it is determined that re-planting has not been successful, the project applicant shall be required to provide replacement planting as deemed necessary by the Monterey County Planning Department. The Replanting and Landscaping Plan shall be subject to the approval of the Monterey County Planning Department.</p> <p><i>4.1-2</i> In order to minimize tree removal and associated visual impacts, final design-level improvement plans shall retain existing trees to the greatest extent possible. Final design-level plans shall be prepared in consultation with a registered arborist/forester to minimize tree removal and ensure the health of remaining trees. In addition, final design plans for the proposed development shall utilize natural landforms and vegetation for screening structures, access roads, building foundations, cut and fill slopes, and exterior lighting. Roads, parking, and utilities shall be designed to minimize visual impacts. In order to further guarantee minimized alteration of the existing character of the project site, the applicant shall submit evidence (site plans, building elevations, landscape plans, etc.) demonstrating that landscaped buffers, setbacks, and screening will be provided along public roadways that border the project area.</p>	Less than Significant.

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>Prior to issuance of any grading and/or building permits, final plans shall be subject to the review and approval of the Monterey County Planning Department. If the removal of existing trees is required, the applicant shall submit evidence demonstrating that there are no feasible design alternatives to avoid tree removal. In the event that tree removal is required, the project applicant/project arborist shall prepare a tree removal and replacement plan for each phase of construction, subject to the review and approval of the Monterey County Planning Department. Any tree removal and/or tree replanting shall be in accordance with mitigation measures 4.4-1 and 4.4-2 as defined in Section 4.4 Biological Resources of this DEIR. The tree removal and replacement plan shall identify specific grading limits and building footprint siting that minimizes tree removal, as well as appropriate tree replacement ratios (minimum of 1:1 for trees > 12 inches DBH; 3:1 replacement for trees 6-11 inches DBH) and replanting locations. Buildings, roadway, parking areas, and other proposed structures shall be adjusted to the greatest extent possible to reduce tree removal. All ground disturbing activities shall be monitored by the project arborist/forester to ensure impacts to retained trees are minimized.</p>	
<p>The project would result in the removal of existing mature vegetation adjacent to Highway 1 to accommodate buildout of the project site into a residential condominium complex. Existing vegetation, particularly mature pine and oak trees, located west of Highway 1 is considered a scenic resource that is an important component of the visual integrity of the Highway 1 corridor. Removal of vegetation and construction of two buildings of the overall complex as close as 30 feet from the highway would impact views from Highway 1 looking west towards</p>	<p><i>4.1-1</i> See mitigation regarding potential impacts to a Scenic Vista.</p> <p><i>4.1-2</i> See mitigation regarding potential impacts to a Scenic Vista.</p> <p><i>4.1-3</i> In order to assure that impacts to a scenic resource, the Highway 1 corridor, are minimized, the two buildings housing Units 1-8 located adjacent to Highway 1 on the proposed project site plan shall be constructed with a maximum elevation of 28 feet. This maximum elevation shall be uniform for both of the buildings and shall be recorded on the project's final map, subject to approval by the County of Monterey.</p> <p><i>4.1-4</i> In order to assure that impacts to scenic resources as viewed from the Highway 1 corridor are minimized, the project applicant/developer shall ensure that at no time shall any development, including project signage, parking, or construction-related activities, be permitted within the 10' property-line setback. All existing mature trees within the 10' setback shall be retained to the extent possible consistent with mitigation measures 4.1-1 and 4.1-2. This measure shall be recorded on the project's final map, subject to approval by the County of Monterey.</p>	Significant and Unavoidable.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
the project site.		
Development of the proposed project would result in the rehabilitation and adaptive reuse of the existing hospital structure and garage/shop building and construction of 10 additional detached buildings on the project site, to accommodate a total of 46 condominium units. The proposed project would include common space for underground and surface parking, a recreation room, gym, and storage facilities. Implementation of the proposed project would have an overall impact of improving upon existing site conditions and would include landscape screening; the project would thus alter the existing visual character of the site through the introduction of new urban features.	<p>4.1-5 In order to minimize the contrast between built elements and the surrounding environment, all buildings shall be designed with colors and materials that effectively reflect the architectural style of the main hospital building, blending the structures with the on-site landscape. Building applications for new structures shall include color and material sample photo sheets and shall be approved by the Monterey County Planning Department prior to the issuance of building permits. Reflective building material shall not be allowed, unless otherwise approved by the County.</p> <p>4.1-6 Prior to the issuance of any building permit for development within the project site area, the project applicant shall submit detailed plans, including elevations, site plans, and/or other documentation detailing compliance with applicable development standards, subject to the review and approval of the Monterey County Planning Department.</p>	Less than Significant.
The project would create a new source of light or glare that would adversely affect day or nighttime views in the area.	<p>4.1-7 In order to minimize glare and lighting, the project proponent shall submit a detailed lighting plan subject to the review and approval of the Monterey County Planning Department prior to issuance of any grading and/or building permit. The lighting plan shall implement the following standards:</p> <ul style="list-style-type: none"> ▪ Maximum Height: Outdoor street/road/parking light fixtures shall not exceed 12 feet in height or the height of the nearest structure, whichever is less. ▪ Energy-Efficiency: Outdoor lighting shall utilize energy-efficient (high pressure sodium, low pressure sodium, hard-wired compact fluorescent, or lighting technology that is of equal or greater efficiency) fixtures and lamps. 	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<ul style="list-style-type: none"> ▪ Exterior building lights shall be installed with timers and/or sensors. ▪ Positioning: Fixtures shall be properly directed, recessed, and/or shielded (e.g., downward and away from adjoining properties) to reduce light bleed and glare onto adjacent properties or public rights-of-way, by: <ol style="list-style-type: none"> 1. Ensuring that the light source (e.g., bulb, etc.) is not visible from off the site; and 2. Confining glare and reflections within the boundaries of the subject site to the maximum extent feasible. ▪ Maximum Illumination: No lighting on private property shall produce an illumination level greater than one footcandle on any property within a residential zone except on the site of the light source. No flood lighting shall be allowed on the project site. ▪ No glare or lighting shall be directed towards Highway 1. ▪ No permanently installed lighting shall blink, flash, or be of unusually high intensity or brightness. <p>Landscaping shall be designed to the maximum extent feasible in order to screen project site lighting.</p>	
4.2 Agricultural Resources		
No impacts requiring mitigation.		
4.3 Air Quality		
Construction activities, including clearing, excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed ground would generate dust and particulate matter emissions that may exceed MBUAPCD thresholds.	<p>4.3-1 In order to reduce particulate matter emissions during construction, the project applicant or contractor shall submit a Construction Management Plan that includes a dust control plan to the Monterey County Planning and Building Inspection Department for review and approval prior to issuance of any grading permits. The dust control plan shall: 1) specify the methods of dust control to be utilized, 2) demonstrate the availability of needed equipment, materials, and personnel, 3) require the use reclaimed water for dust control, and 4) identify a responsible individual or individuals who can authorize and monitor implementation of the measures and any additional measures as needed. The plan shall be implemented by all relevant contractors at the site and shall be monitored daily by the Monterey County Planning and Building Inspection Department during demolition and grading</p>	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>activities at the site. The dust control plan shall, at a minimum, include the following measures:</p> <ul style="list-style-type: none"> ▪ Water all active construction areas, including haul roads, at least twice daily and more often during windy periods. Active areas adjacent to existing businesses should be kept damp at all times. If necessary, during windy periods, watering is to occur on all days of the week regardless of onsite activities (reduces fugitive dust PM₁₀ from wind blown dust from active areas and unpaved road sources by 55%). ▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (reduces PM₁₀ from inactive areas of 84%). ▪ Limit traffic speeds on unpaved roads and areas to 15 mph (reduces PM₁₀ from travel on unpaved haul roads by 44%). ▪ Cover all trucks hauling trucks or maintain at least two feet of freeboard. ▪ Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. ▪ Sweep daily all paved access roads, parking areas, and staging areas at construction sites. ▪ Sweep streets daily if visible soil material is deposited onto the adjacent roads. ▪ Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles. ▪ Replant vegetation in disturbed areas as quickly as possible. ▪ Suspend excavation and grading activity when hourly-average winds exceed 15 mph and visible dust clouds cannot be contained within the site. ▪ Residences within 300 feet of a construction area shall be notified of the construction schedule in writing prior to commencement of construction. The contractor and Monterey County Planning and Building Inspection Department shall designate an air quality disturbance coordinator who would be responsible for responding to complaints during construction. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the air quality disturbance coordinator shall be conspicuously placed on the construction site and written into the construction notification schedule sent to nearby residences. 	

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
Construction activities would involve use of the heavy-duty off-road equipment and large trucks that would generate diesel particulate exhaust and NOx emissions.	<p>4-3.2 Prior to the issuance of any grading permits, a diesel risk reduction plan (DRRP) shall be developed in consultation with the MBUAPCD submitted to the Monterey County Planning Department (MCPD). The DRRP shall demonstrate that adverse health effects are reduced to an acceptable level (i.e., below MBUAPCD thresholds) through the measures below or others to the satisfaction of the MCPD. The DRRP shall be implemented at the site throughout the construction period, during which diesel-fueled vehicles and equipment are utilized. MCPD shall monitor the implementation of the DRRP by conducting site inspections on a weekly basis throughout the construction period, during which diesel-fueled vehicles and equipment are utilized. Contractors shall maintain all records of purchases and maintenance of diesel oxidation catalysts, diesel particulate matter filters, and any other emission control measures implemented. MBUAPCD shall have the right to inspect the records and the construction and demolition equipment and vehicles throughout the construction period. The following guidelines shall be included in the DRRP:</p> <ul style="list-style-type: none"> ▪ The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors). ▪ Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite and staged away from residential areas. ▪ Properly tune and maintain equipment for low emissions. ▪ Stage large diesel powered equipment at least 200 feet from any active land uses (e.g., residences). ▪ Limit the pieces of equipment used at any one time. ▪ Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled loader, roller) by using gasoline-powered equipment. ▪ Limit the daily hours of operation for heavy-duty equipment. ▪ Use designated truck-haul routes to avoid sensitive receptors. <p>4.3-3 All of the following specifications shall be included in the DRRP referenced in mitigation measure 4.3-2 and implemented at the site subject to the inspection, monitoring, and records requirements in</p>	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>mitigation measure 4.3-2:</p> <p>No engines greater than 750 HP shall be used without control devices or additional mitigation measures. The following equipment may be used without control devices or additional mitigation measures:</p> <ul style="list-style-type: none"> Engines between 501 HP and 750 HP that are model years 2002 and newer; Engines between 251 HP and 500 HP that are model years 1996 or newer; and Engines between 175 HP and 250 HP that are model years 1985 or newer. <p>The following equipment may be used, if retrofitted with a catalyzed diesel particulate filter:</p> <ul style="list-style-type: none"> Engines greater than 750 HP, if model year 2006 and newer; and All engines less than 749 HP, regardless of model year. <p>If construction equipment uses B99 biodiesel, the following could be utilized without control devices or additional mitigation measures:</p> <ul style="list-style-type: none"> Engines between 501 HP and 750 HP, if model years 2002 or newer; Engines between 250 HP and 500 HP, if model years 1996 and newer; and Any engine less than 250 HP. <p>Alternatively, the project shall implement a combination of other emission reduction measures, if they can be demonstrated to reduce the acute and long-term cancer risk to below relevant MBUAPCD thresholds.</p>	
Construction activities would involve earthmoving, use of the heavy-duty off-road equipment and large trucks that would generate	Implementation of mitigation measures 4.3-1, 4.3-2, and 4.3-3 above.	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
diesel exhaust, volatile organic compounds, and particulate matter emissions that may result in unacceptable nuisances or odors to nearby sensitive receptors.		
4.4 Biological Resources		
The proposed project would represent temporary and permanent impacts to on-site vegetation, and will result in the removal of 3 or more Monterey pine and/or Coast live oak trees. Temporary impacts to vegetation include grubbing and grading associated with development of the site; permanent impacts include the placement of structures, roads, driveways, etc.	<p>4.4-1 A Forest Management Plan was prepared for the site according to County standards contained in Title 20.146.00; all measures presented in the FMP for the protection of on-site trees shall be implemented as conditions of the project (see Sections 6.1 - 6.7 of FMP in Appendix D).</p> <p>4.4-2 The applicant shall contract a qualified landscape architect to prepare a Replanting and Landscaping Plan for the site to be approved by Monterey County prior to issuance of a grading permit for the proposed project. The plan shall be reviewed by a qualified arborist/registered professional forester. All replanting and landscaping shall be in conformance with the design and implementation measures contained in the Carmel Area Land Use Plan and the Monterey County Coastal Implementation Plan. The landscaping plan shall utilize the native species palette presented in the FMP and/or other native species with the approval by Monterey County. The approved plan shall also specify the specific placement of replacement oaks and pines at the ratios prescribed in mitigation measure # 4.4-4 below. Seeds, seedlings, and/or relocated/transplanted Monterey pine and Coast live oak tree must be free of disease (i.e., pitch canker) and derived from native genetic stock. The plan shall include specific measures for the management and eradication of invasive/non-native species as recommended in the FMP, and shall include care/maintenance, monitoring requirements and duration, success criteria, reporting requirements, and adaptive management techniques (i.e., additional replanting, extension of monitoring, etc.) in the event that success is not achieved in the first monitoring period for all proposed replanting and landscaping.</p> <p>4.4-3 Trees and vegetation not planned for removal shall be protected during construction to the maximum extent feasible. This shall include the use of exclusionary fencing of herbaceous and woody vegetation to prevent unauthorized access by personnel and equipment.</p>	Less than Significant.
The proposed construction of 46 new residences at the Carmel Convalescent Home site will 105 of	4.4-4 Each of the twenty-one (21) coast live oaks greater than twelve inches DBH proposed for removal will be replaced at a 1:1 ratio. Although most of the Monterey pines slated for removal appear to have been planted and therefore do not require mitigation, two (2) Monterey pines greater than twelve	Less than Significant.

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
<p>126 on-site trees >12 inches diameter at DBH (21 coast live oak, 76 Monterey pines, and eight miscellaneous species). The removal of native trees for development is subject to the policies contained within the Carmel Area LUP and CIP. Requirements for replacement are 1:1 for each native tree 12 inches DBH or larger that is removed.</p> <p>This also includes removal of 52 of 87 on-site trees between 6-11 inches diameter at DBH (33 Coast live oak, 5 Monterey pine, and 14 “others” (horticultural species including olive, acacia, pittosporum, cedar, etc.). Although the Carmel Area LUP does not require mitigation for native tree removals less than 12 inches DBH, removal of these trees will further degrade the site from a wildlife habitat perspective.</p>	<p>inches DBH scheduled for removal appear to have seeded in from adjacent native trees and shall be replaced at a 1:1 ratio (see FMP). In addition, 11 multi-stemmed trees (generally oaks) that have cumulative stem diameters equivalent to 12 inches DBH are proposed for removal; these trees will likewise be replaced at a 1:1 ratio (see FMP). All replacement trees shall be pitch canker free and derived from local genetic stock.</p> <p>Each of the Coast live oak and Monterey pine trees at the site between 6-11 inches DBH proposed for removal shall be replaced at a 3:1 ratio. All replacement trees shall be pitch canker free and derived from local genetic stock.</p>	
<p>The project would require grading, excavation, tree limbing and removal, and other activities that may result in the loss or abandonment of on-site raptor nests and/or other native/migratory bird species nests.</p>	<p>4.4-5 If project activities including grading, excavation, or tree-limbing/removal will initiate during the typical avian nesting season (February 15– August 1), a qualified biologist shall conduct preconstruction nesting avian surveys no more than 14 days prior to initiation of construction activities; surveys should be conducted in all areas that may provide suitable nesting habitat on-site or within 300 feet of proposed construction activities. If active nests are found, a suitable construction buffer shall be established by a qualified biologist, and no work shall occur within that buffer until August 1 when young are assumed fledged.</p>	<p>Less than Significant.</p>

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>Alternatively, a qualified biologist can conduct weekly nest checks to gauge nestling/fledgling status, and construction may proceed once fledglings have dispersed from the nest provided written concurrence from CDFG. No active nest shall be impacted or removed without a depredation permit from CDFG; a depredation permit will not be issued for impacts to Fully Protected Species.</p> <p>For activities that occur outside of the nesting season (generally August 2 - February 14), preconstruction surveys are not required. If construction is initiated outside of the nesting season and continues into the nesting season, preconstruction surveys are required if construction will occur in areas not previously accessed and/or disturbed (>300 feet from previous construction activities).</p>	
<p>The project would require tree limbing and removal and modification of on-site buildings that may result in direct take of special status bats and/or bat roosting habitat. Bats and their roosts are protected under CDFG code and provided planning consideration under CEQA for any special status species.</p>	<p>4.4-6 A qualified bat specialist shall conduct site surveys to characterize bat utilization of the site and potential species present (techniques utilized to be determined by the biologist). Based on the results of these initial surveys, one or more of the following shall occur.</p> <ul style="list-style-type: none"> ▪ If it is determined that bats are not present at the site, no additional mitigation is required. ▪ If it is determined that bats are utilizing the site and may be impacted by the proposed project, preconstruction surveys shall be conducted no more than 30 days prior to modification, demolition, or removal of on-site buildings and/or limbing and removal of on-site trees (or any other occupied habitat). If according the to bat specialist no bats or bat sign are observed in the course of preconstruction surveys, demolition/removal of buildings and trees may proceed. If bats and/or bat sign are observed during the preconstruction surveys, the biologists shall determine if disturbance will jeopardize a maternity roost, or another type of roost (foraging, day, night). ▪ If a single bat and/or only adult bats are roosting, demolition or removal of the structure can proceed after the bats have been safely excluded from the roost. Exclusion techniques shall be determined by the biologist and depend on the roost type; the biologist shall prepare a mitigation plan for provision of alternative habitat to be approved by CDFG. ▪ If an active maternity roost is detected, avoidance is preferred. Work in the vicinity of the roost (buffer to be determined by bat specialist) shall be postponed until the qualified biologist monitoring the roost(s) determines that the young have fledged and are no longer dependent on the roost. The monitor shall ensure that all bats have left the building and or area of disturbance prior to initiation of construction and/or demolition activities. If disruption of a maternity roost cannot be avoided, a depredation permit would be required prior to “take” of the roost. 	<p>Less than Significant.</p>

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
<p>The project proposes placement of new light sources throughout the site (see Conceptual Lighting Plan in Aesthetics section). New light sources may further reduce on-site habitat quality for any wildlife utilizing the site, including special status bats and raptors. Artificial light disrupts the natural habits of many indigenous wildlife species.</p>	<p>4.4-7 Minimize outdoor lighting features (i.e., streetlights, directed flood lights, and/or decorative lights) which are directed away from on-site development. Floodlights, in particular, should avoid on-site trees and/or mature vegetation (also see lighting-related mitigation in the Aesthetics Section of this DEIR).</p>	<p>Less than Significant.</p>
4.5 Cultural Resources		
<p>Development of the project and the resulting rehabilitation and renovation of the two historic resources on the project site would cause a substantial, adverse change to a historical structure eligible for listing in the California Register on the site.</p>	<p>4.5-1 In order to ensure continuation of historical integrity of the resources on site, rehabilitation activities shall be conducted in accordance with all applicable federal, state, and local regulations, including the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings</i> and the <i>Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings</i> published by Weeks and Grimmer in 1995 for the National Park Service. All building modifications shall comply with these standards, and modifications shall be constructed in a manner similar yet distinguishable from the original structure. All activities regarding historical architectural resources and historic preservation carried out as part of this project shall be carried out by, or under the direct supervision of, persons meeting the Secretary of the Interior's professional qualifications standards (48 FR 44738-9) in these disciplines. Evidence of compliance shall be provided to Monterey County Planning Department upon completion of rehabilitation activities by the project applicant/developer.</p> <p>4.5-2 Prior to the issuance of any permits, the project applicant/developer shall prepare a Preservation and Monitoring Plan (PMP) that will act as a work plan for the restoration of the historic resources on the site. In general, the PMP should identify changes to the property that could reasonably be expected to occur and detail protective actions so that the changes would not disrupt the historical integrity of the resource. The PMP would be prepared by a qualified professional, as required by Mitigation Measure 4.5-1, above. The purpose of the PMP is to provide practical guidance to the construction and</p>	<p>Less than Significant.</p>

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>restoration teams for the Villas de Carmelo project. The PMP shall contain the following features:</p> <ul style="list-style-type: none"> • A detailed history of the Carmel Convalescent Hospital; • A discussion of the structures' historical significance (i.e., why the building is listed in the National Register); • A comprehensive list of both character-defining historic features and non-historic elements of the two historic buildings and surrounding landscaping that contribute to the structures' historical significance, as well as materials to be retained, preserved, salvaged, and/or reused; • A detailed description of the current condition of the buildings and their integrity relative to the National Register criteria; • A discussion of the Secretary of the Interior's Standards for the Treatment of Historic Properties, including relevant standards as outlined by the Secretary of Interior and the Secretary's guidelines in applying these standards; • Specific work to take place on during the implementation of the project, based on elevation-by-elevation architectural, demolition, and construction plans and to-scale drawings, and detail how that work will be conducted in accordance with the SOI Standards; • Specific preservation treatments, standards, and requirements for care during all aspects of the project, including, but not limited to, treatments for the following: historic windows and doors, fountain and landscaping features, modifications to the rear wing addition, modification of the garage/shop building, and excavation and modification activities for the underground parking garage addition; and • Specific use and applications of the extensive technical guidance available from the NPS regarding the rehabilitation and adaptive re-use of historic buildings. Preservation, repair, and appropriate replacement activities shall be consisted with SOI Standards and other National Park Service Technical Preservation Services guidance, including the following where appropriate: • "Inappropriate Replacement Doors," <i>ITS Bulletin No. 4</i>, by Anne Grimmer (July 1999) • "New Exterior Additions to Historic Buildings, Preservation Concerns," <i>Preservation Brief No. 14</i>, by Kay D. Weeks (1986) • "The Preservation and Repair of Historic Clay Tile Roofs," <i>Preservation Brief No. 30</i>, by Anne 	

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>Grimmer and Paul Williams (1992)</p> <ul style="list-style-type: none"> • “The Preservation and Repair of Historic Stucco,” <i>Preservation Brief No. 22</i>, by Anne Grimmer (1990) • “Protecting a Historic Structure during Adjacent Construction,” <i>Preservation Technical Note No. 3</i>, by Chad Randl (July 2001) • “Repair and Thermal Upgrading of Historic Steel Windows,” <i>Preservation Brief No. 13</i>, by Sharon C. Park (1984) • “Selecting New Windows to Replace Non-Historic Windows,” <i>ITS Bulletin No. 23</i>, by Claire Kelly (October 2001) <p>The PMP shall be incorporated in the Mitigation Monitoring and Reporting Plan (MMRP) for the project. The Preservation Plan shall be subject to Monterey County Historic Resources Review Board and Monterey County Planning Department review and approval.</p> <p>4.5-3 Prior to the start of any project work, the project applicant/developer shall ensure that the main hospital building, its surrounding terraced landscaping, and the garage/shop building is recorded and documented in accordance with the Level II recordation standards of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) program. This level of recordation shall include:</p> <ul style="list-style-type: none"> • archival reproduction of any existing historic images of the resources; • archival reproduction of any existing maps, sketches, or drawings of the resources; • production of measured architectural plans and drawings of the resources; • production of large-format photographs of exterior and interior views of the resources, and views of the setting of the resources, including relationship to landscape features; • narrative history and description of the property based on the narrative included in the evaluation of the property (Appendix F), and the Monterey County survey(s) of similar properties, if any. <p>The original archival set of recordation documents and photographic prints shall be submitted to the Monterey County Historical Society (or its designee), and archival quality photocopies of the documentation set shall be provided to the following interested parties and local repositories: Monterey County Libraries (Carmel and Monterey branches) and UC Santa Cruz Library Special</p>	

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>Collections Department. The project proponent shall ensure that this recordation documentation is prepared prior to any construction activities or treatments and shall make the content of the document available for other mitigation measures, such as the preparation of interpretive material.</p> <p>4.5-4 At least 30 days prior to commencing any work on the property, the project applicant/developer shall produce video documentation of the main hospital building with its surrounding landscaping, and the garage/shop building. This video documentation shall include footage of the exterior and interior of the building, as well as the grounds of the property. The video documentation shall be submitted to the Monterey County Historical Society (or its designee), and a copy of the video documentation shall be provided to interested parties upon request. The project proponent shall make the videography available for other mitigation measures described in this section.</p> <p>4.5-5 The project applicant/developer shall develop and implement protective measures to safeguard the character-defining features of the main hospital building, its surrounding landscaping, and the garage/shop building from damage by the implementation of the project. The features include, but are not limited to tile roofing, decorative chimney tops, tower, arched window and passageway openings, the original footprint of the building, the fountain, the landmark oak tree, stone stairways, terrace, and retaining walls. The original fenestration and doors shall be retained, repaired, or replaced in kind. Preservation, repair, and appropriate replacement activities shall be consisted with SOI Standards and other National Park Service Technical Preservation Services guidance, such as <i>ITS Bulletin No. 4</i>, "Inappropriate Replacement Doors," by Anne Grimmer (July 1999) and <i>Preservation Brief No. 13</i>, "Repair and Thermal Upgrading of Historic Steel Windows," by Sharon C. Park (1984). Replacement of non-historic windows and doors shall be sensitive to the appearance of the original fenestration design. Selection of new windows and doors shall be conducted in accordance with NPS guidance, such as <i>ITS Bulletin No. 23</i>, "Selecting New Windows to Replace Non- Historic Windows," by Claire Kelly (October 2001). Protective measures shall be conducted in accordance with NPS <i>Preservation Technical Note No. 3</i>, "Protecting a Historic Structure during Adjacent Construction," by Chad Randl (July 2001).</p> <p>4.5-6 The project applicant/developer shall ensure that any inadvertent damage to the character-defining features of the main hospital building, garage/shop building, and historic landscaping resulting from the rehabilitation project was repaired in accordance with guidance listed above, as well as the <i>Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings</i> (U.S. Department of the Interior, National Park Service 1992), California Historical</p>	

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>Building Code, and the MMRP for the project. The existing condition of the building as documented by HABS recordation prior to the initiation of the relocation scenario shall be the established the baseline condition for assessing and repairing inadvertent damage. A record of all inadvertent damage and the completed repairs shall be submitted to the Monterey County Historical Society (or its designee) and included into the historic record of the resources on site.</p> <p>4.5-7 The project applicant/developer shall coordinate with and inform interested parties, including, but not limited to the Monterey County Historical Society, Monterey County Historical Advisory Commission, Monterey County Historic Resources Review Board, and Monterey County Historical Society, regarding the status of its compliance with the mitigation measures set forth in the MMRP, as necessary.</p> <p>4.5-8 The project applicant/developer shall consult with interested parties concerning funding and creation of permanent or temporary interpretive exhibits describing the history of the metabolic clinic and the Peninsula Community Hospital. Interested parties to be consulted include, but are not limited to, Monterey County Historical Society, Monterey County Historical Advisory Commission, Monterey County Historic Resources Review Board, and Monterey County Historical Society. If consultation results in agreement between the project proponent and these parties concerning the nature and extent of the exhibits, the project proponent shall produce and install the exhibits. The interpretive exhibit shall utilize the images, narrative history, drawings, video, or other material produced for the mitigation described above. The interpretive exhibits may be in the form of, but are not necessarily limited to the following: plaques or markers, interpretive display panels, and or printed material for dissemination to the public. If consultation does not result in agreement between the project proponent and the interested parties, the project proponent could seek an alternative Monterey County location for the interpretive exhibits. Appropriate alternative locations shall be determined at that time.</p>	
Construction of the project may result in the discovery and disturbance of unknown archaeological resources and/or human remains.	4.5-9 The project applicant/developer shall monitor the construction site. If, during the course of construction, human remains or cultural, archaeological, historical, or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. The Monterey County Resource Management Agency - Planning Department and a qualified archaeologist (i.e., an archaeologist registered with the Society of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.	
4.6 Geology, Soils, and Mineral Resources		
The project would be exposed to potential adverse effects from strong seismic ground shaking that may result in damage to proposed structures.	<p>4.6-1 In order to minimize the potential effects from strong seismic ground shaking on project components, all recommendations from the project's Geotechnical Assessment Report prepared by O'Brien & Gere Engineers (November 2007), and subsequent peer review (September 2008), shall be incorporated by the project proponent into final design plans, subject to review by the Monterey County Planning Department prior to construction activities.</p> <p>4.6-2 The project engineer shall ensure that all structures are designed to the most current standards of the California Building Code, at a minimum. Adherence into final design plans shall be reviewed by the Monterey County Planning Department prior to construction activities.</p>	Less than Significant.
The historic hospital may be adversely affected by the grading on the project site.	<p>4.6-3 In order to minimize the potential effects from grading on the project site, all recommendations from the project's Geotechnical Assessment Report prepared by O'Brien & Gere Engineers (November 2007) shall be incorporated by the project proponent into final grading and erosion control plans, subject to review by the Monterey County Planning Department prior to construction activities.</p> <p>4.6-4 In order to reduce on-site erosion due to project construction and operation, an Erosion Control Plan and Storm Water Pollution Prevention Plan shall be prepared for site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The Erosion Control Plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System. The erosion component of the plan must at least meet the requirements of the Storm Water Pollution Prevention Plan required by the California State Water Resources Control Board. In order to minimize the potential effects from grading on the project site, all recommendations from the project's Erosion Control Plan shall be implemented into construction activities on the project site. This mitigation measure shall be placed as a note on the grading plans. Erosion control measures may include, but not be limited to, the following:</p> <ul style="list-style-type: none"> a. Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with the initial grading operations and maintained through the development process to remove sediment and run-off waters. All sediment shall be retained onsite. b. Native vegetation cover, temporary vegetation, seeding, mulching, or other suitable stabilization 	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as soon as possible through planting of native annual grasses and shrubs, appropriate non-native plants, or with approved landscaping practices.</p> <p>c. Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. On-site drainage devices shall be designed to accommodate increased run-off resulting from site modification. Where appropriate, on-site retention of storm water shall be required.</p> <p>4.6-5 In order to minimize the potential effects from grading on the project site, all grading requiring a County permit, which would occur on slopes steeper than 15 percent, shall be restricted to the dry season of the year.</p>	
4.7 Hazards and Hazardous Materials		
<p>Development of the proposed project, including site grading, excavation, demolition, and other land-disturbing activities, may result in the exposure of construction personnel and site occupants to health and safety risks.</p>	<p>4.7-1 In order to reduce human health risks to construction personnel and future site occupants, the project proponent shall retain a qualified consultant to survey all buildings for asbestos under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to the issuance of any permit. If asbestos containing material is documented within existing on-site structures, all potentially friable asbestos shall be removed prior to building demolition in accordance with NESHAP guidelines. Prior to the issuance of a demolition permit, the project proponent shall submit written evidence to Monterey County Division of Environmental Health from a qualified consultant demonstrating that all asbestos containing material has been properly removed and demolition activities may proceed without exposing construction personnel to asbestos-related hazards.</p> <p>4.7-2 In order to reduce human health risks to construction personnel and future site occupants, the project proponent shall retain a qualified consultant to conduct a lead-based paint and Title 22 metal surveys to evaluate the presence of lead-based paint, silver, or other toxic metals prior to the issuance of any permit. If lead-based paint is observed within existing buildings and the surrounding area, all peeling and flaking lead-based paint shall be removed and properly disposed of separately from building debris, in accordance with current Department of Toxic Substances Control policies and California Code of Regulation Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and mandates good worker practices by workers exposed to lead. All site soils contaminated by lead-based paint shall be removed and properly disposed of prior to any construction</p>	<p>Less than Significant.</p>

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>activities. Contractors performing lead-based paint removal shall provide evidence to Monterey County Division of Environmental Health of certified training for lead-related construction work. Prior to the issuance of a demolition permit, the project proponent shall submit written evidence to Monterey County Division of Environmental Health from a qualified consultant demonstrating that all lead-based paint has been properly removed and that no further health hazards related to lead-based paint exist on site.</p> <p>4.7-3 An Operations, Maintenance, and Remediation Plan shall be prepared and implemented for asbestos, lead, and any other toxic material discovered on site to reduce contamination to acceptable levels, maintain the safety of construction workers and future site users, and assure proper management of contaminated materials in accordance with state and local regulatory requirements. This plan shall include, but not be limited to, a detailed accounting of contaminated materials found on site, standards and requirements for construction personnel for handling contaminated materials, and required procedures and industry standards for removal and remediation of contaminated materials. This plan shall be subject to review and approval by Monterey County Division of Environmental Health. Evidence shall be provided to Monterey County, prior to the issuance of any grading permit, demonstrating that all necessary remedial actions have been completed pursuant to the approved Remediation Plan.</p> <p>4.7-4 If hazardous chemicals, such as paints, photo-processing wastes, chemical sterilants, disinfectants, paint-related chemicals, or cleaning chemicals are discovered on the site during the demolition of the outlying buildings, the restoration of the former hospital and garage, or construction of the proposed residential structures, the applicant shall ensure that the chemicals shall be disposed of at an appropriate permitted facility. Once removed, any and all exposed surfaces shall be visually observed to confirm the presence/absence of staining. Should staining be observed, the stained surface, including concrete or asphalt, shall be removed and disposed of at an approved landfill and the underlying soils visually observed to confirm the vertical extent of contamination. If staining is observed, stained soils shall be tested to identify appropriate remedial activities.</p> <p>4.7-5 In order to ensure that future construction personnel are not exposed to previously unknown environmental hazards or if suspected hazardous materials are discovered prior to or during construction, the contractor shall:</p> <ol style="list-style-type: none"> 1. Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area; 	

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>2. Notify the Project Engineer of the implementing agency;</p> <p>3. Secure the area as directed by the Project Engineer; and</p> <p>4. Notify the implementing agency's Hazardous Waste/Materials Coordinator.</p> <p>A qualified consultant shall then be retained to determine the nature of the potential hazards. The consultant findings shall be subject to review and approval by Monterey County Division of Environmental Health. Evidence shall be provided to Monterey County Division of Environmental Health, prior to continuation of demolition in the specified area, demonstrating that all necessary remedial actions have been completed pursuant to the approved recommendations of the qualified consultant.</p> <p>4.7-6 In order to ensure that all existing boilers, generators, and fuel tanks are properly disposed of, the project proponent will administer a quality check for the propane tank and diesel generator located on the west end of the property prior to use or removal. If the proponent plans to retain any of the existing fuel tanks or generators on site, the project applicant shall properly register these items with Monterey County Division of Environmental Health. If the project proponent plans to remove any of these items, then the proponent and/or contractor shall properly dispose of any or all existing heating boilers, generators, and fuel tanks off site at an appropriate permitted landfill facility. All materials shall be removed in accordance with applicable local, state, and federal requirements and will be subject to review and approval of Monterey County Division of Environmental Health. Once the boilers and tanks are removed, a visual inspection of the areas beneath and around the removed boilers shall be performed by a qualified consultant. Any stained soils observed underneath the boilers shall be sampled and removed in accordance with industry standards. Prior to the issuance of any permit, the project proponent shall submit evidence to Monterey County Division of Environmental Health demonstrating that all boilers, generators, and fuel tanks have been properly removed or recorded.</p>	
4.8 Hydrology and Water Quality		
The proposed project has the potential to increase stormwater run-off from the project site.	<p>4.8-1 In order to ensure that increased levels of stormwater run-off are detained onsite, the project's Geotechnical Engineer shall provide evidence to the Monterey County Planning Department that recommendations contained within the project's Preliminary Drainage Report have been adhered to regarding the project's proposed on-site drainage storage facility prior to the issuance of building permits.</p>	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
Construction and operation of the proposed project could result in an impact to surface water quality.	4.8-2 In order to avoid potential impacts to water quality during construction activities, the applicant shall obtain a National Pollution Discharge Elimination System Program Construction General Permit from the State Water Resources Control Board and prepare an erosion control plan, prior to the issuance of a grading permit. Specific requirements regarding erosion control are detailed in mitigations 4.6-3, 4, and 5 in Section 4.6 Geology, Soils, and Mineral Resources of this DEIR .	Less than Significant.
4.9 Land Use		
No impacts requiring mitigation.		
4.10 Noise		
Residential uses developed at portions of the project site would be exposed to exterior noise levels exceeding the “normally acceptable” noise and land use compatibility standards presented in the County’s General Plan for multiple-family residential land uses. Interior noise levels would exceed acceptable levels at portions of the project site without the incorporation of noise insulation features into the project’s design.	<p>4.10-1 In order to reduce exterior noise levels to the applicable standards set forth by Monterey County, the project applicant/developer shall construct a minimum 10-foot noise barrier (relative to the finished floor elevations of Units 4 and 5) between Units 4 and 5 to maintain noise levels at private and common outdoor use areas to 60 dBA CNEL or less. The noise barrier shall be airtight over the surface and at the base. The minimum surface weight of the proposed noise barrier materials shall be 3 lbs/ft². Suitable construction materials include masonry block, concrete, and minimum one-inch thick wood boards. Evidence to demonstrate provisions for this measure shall be submitted by the project applicant/developer to the Monterey County Planning Department prior to building permit issuance.</p> <p>4.10-2 In order to reduce interior noise levels to applicable standards set forth by Monterey County of 45 dBA CNEL or lower within each unit on the project site, the project applicant/developer shall submit evidence to demonstrate provisions for following measures prior to building permit issuance from the Monterey County Planning Department:</p> <ul style="list-style-type: none"> a. Installation of forced-air mechanical ventilation in each unit; b. Exterior wall finish of stucco or an approved acoustical equivalent ; c. Exterior doors, excluding glass doors, shall be solid-core wood or insulated steel with perimeter weather-stripping and threshold seals; d. Acoustic baffles shall be installed on the interior side of roof vents that face (or partially face) Highway 1 in the first row of buildings along the roadway; and e. Project-specific acoustical analyses, as required by Chapter 12, Appendix Section 1207.11.2 of the 	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	California Building Code to determine each unit will meet interior noise levels as set forth by Monterey County. Further treatments may be needed to meet acceptable noise levels, treatments could include sound rated windows and doors, sound rated wall constructions, acoustical caulking, protected ventilation openings, etc.	
Noise generated by construction activities would substantially increase noise levels at adjacent residential land uses.	<p>4-10.3 The project applicant/developer shall develop a construction noise reduction plan with the following listed plan controls, standards and actions. The Plan shall be developed in close coordination with adjacent noise-sensitive land uses so that construction activities can be scheduled to minimize noise disturbance. The plan shall be submitted to the Monterey County Planning Department for review and approval prior to the initiation of construction activities. The construction noise reduction plan shall incorporate the following controls with the goal of reducing construction noise levels to less-than-significant:</p> <ul style="list-style-type: none"> • Noise-generating activities at the construction site or in areas adjacent to the construction site shall be restricted to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. Construction shall be prohibited on weekends and holidays. • No individual device shall produce a noise level more than 85 dBA at a distance of 50 feet. • Solid plywood fences (minimum 8 feet in height) shall be constructed around the construction site to shield adjacent residences or other noise-sensitive land uses. • ‘Quiet’ models of air compressors and other stationary noise sources where technology exists shall be utilized. • All internal combustion engine-driven equipment shall be equipped with mufflers that are in good condition and appropriate for the equipment. • All stationary noise-generating equipment, such as air compressors and portable power generators, shall be located to maximize distances to residences/noise sensitive uses. • Staging areas and construction material shall be located to maximize distances to residences or noise-sensitive land uses. • All construction traffic shall be routed to and from the project site via designated truck routes where possible and prohibit construction related heavy truck traffic in residential areas where feasible. 	Less than Significant.

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
	<ul style="list-style-type: none"> Noise from construction workers' radios shall be controlled to a point that they are not audible at existing residences bordering the project site. All unnecessary idling of internal combustion engines shall be prohibited. All adjacent noise-sensitive receptors shall be notified of the construction schedule in writing prior to the initiation of construction activities; The project contractor shall designate a "disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The disturbance coordinator shall conspicuously post a sign that is publicly visible that specifies the project construction noise mitigation measures, the telephone number of the onsite contractor, and the telephone number of the person to contact (the disturbance coordinator) regarding noise complaints. The disturbance coordinator shall respond to complaints and take corrective action within 24 hours. The plan shall be implemented by all relevant contractors at the site and shall be monitored by the Monterey County Planning and Building Inspection Department during demolition and grading activities at the site. 	
4.11 Population & Housing		
No impacts requiring mitigation.		
4.12 Public Service and Recreation		
The project would result in an increased demand for educational services.	<i>4-12.1</i> In order to minimize impacts to educational services, the applicant/developer shall pay a school impact fee for multi-family residential development pursuant to the criteria set forth within California Government Code Section 65995, \$1.93 per square foot assessable space. Assessable space shall be considered the entire square footage within the perimeter of a residential structure, not including carport, walkway, garage, overhand, patio, enclosed patio, detached accessory structure, or similar area. Prior to the issuance of building permits, the applicant shall pay required school mitigation fees to the Carmel Unified School District. As indicated above, the fees set forth in Government Code	Less than Significant.

Table 2.5-1
Summary of Significant Environmental Impacts and Mitigation

Environmental Impact	Mitigation	Level of Significance After Mitigation
	Section 65996 constitute the exclusive means of both “considering” and “mitigating” school facilities impacts of projects [Government Code Section 65996(a)]. They are “deemed to provide full and complete school facilities mitigation” [Government Code Section 65996(b)].	
4.13 Traffic and Circulation		
The proposed project would add an estimated 269 total daily trips to the local street system and Highway 1, which have been identified as deficient in LOS standards.	<p>4.13-1 Prior to recordation of the proposed project’s Final Map, the project applicant/developer shall provide evidence of having paid a pro-rata share to the responsible agency of the future costs of the following improvements to the Monterey County Planning Department:</p> <ul style="list-style-type: none"> • Widening of the southbound shoulder at the Carpenter Street / Valley Way intersection to allow vehicles to pass other vehicles waiting to turn left onto Carpenter Street. • Increasing the radius at the northwest triangular ‘corner’ of the Highway 1/Valley Way intersection by providing a painted island to improve maneuverability for the southbound right turns onto Valley Way. • Removal and/or trimming of any trees or shrubs remaining on the triangular corner of Highway 1 / Valley Way that interfere with the sight distance from Valley Way to Highway 1. <p>Providing an appropriate right-turn lane/flare for the Highway 1 southbound approach to Valley Way for safe deceleration for vehicles turning right from Highway 1 to Valley Way.</p>	Less than Significant.
The project has the potential to result in unsafe conditions for immediate driveway access to Highway 1.	4.13-2 Prior to issuance of any project-related permits, the applicant/developer shall submit to the Monterey County Planning Department evidence provided by the California Department of Transportation that access to the existing driveway on Highway 1 that serves the project site has been closed to vehicular traffic due to significant sight distance and traffic operational deficiencies.	Less than Significant.
The project would result in increased traffic loads in the project vicinity due to construction related traffic.	<p>4.13-3 Prior to commencement of construction activities, the contractor will prepare a Construction Management Plan, which will include, but not be limited to, a traffic construction management plan with the following conditions and shall be subject to review and approval by Monterey County Public Works Department and California Department of Transportation prior to issuance of any encroachment permits. The traffic construction management plans shall, at a minimum, include the following measures:</p> <ul style="list-style-type: none"> • In order to minimize impacts from construction-related traffic, the project contractor shall ensure that the exportation of earth materials from the project site only occur between the hours of 7:30 	Less than Significant.

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
	<p>AM and 3:30 PM.</p> <ul style="list-style-type: none"> The project contractor shall implement truck haul other routes for construction trucks deemed acceptable by the County, designed to help mitigate traffic congestion during the peak traffic hours. The truck haul routes shall be limited to the roadways and accesses to the project site which will avoid commuter and special event traffic to the maximum extent. Additionally, signs shall be posted along roads identifying construction traffic access or flow limitations on one-way road or single lane conditions during periods of truck traffic during the peak hour. Signs shall be placed: (a) at the intersection preceding the traffic access limitation; and (b) not more than 50 feet before such traffic access limitation as necessary during the hauling of materials. Construction equipment shall be stored on the project site and construction vehicles shall not be allowed to park in front of residential homes within the residential neighborhood during the construction phase of the project. The plan shall be implemented by all relevant contractors at the site and shall be monitored by the Monterey County Planning and Building Inspection Department during demolition and grading activities at the site. 	
All of the study intersections and road segments would contribute an increase to the total trips generated by all cumulative projects, resulting in unacceptable LOS ratings for one study intersection and one road segment under cumulative plus project conditions.	4.13-4 The project applicant/developer shall pay the Transportation Agency of Monterey County (TAMC) Regional Development Fee in order to mitigate the proposed project's incremental contribution to cumulative impacts to the regional highway system. Evidence of payment shall be submitted to the Monterey County Planning Department Prior to the issuance of any building permits.	Less than Significant.
4.14 Utilities and Service Systems		
The proposed project will be using an incremental amount of water compared to existing conditions at the time of the initiation of the EIR	4.14-1 The project applicant/developer shall provide evidence to the Monterey County Planning Department and the Monterey County Water Resources Agency that the water credit to serve the proposed project is available for the site through the MPWMD and that the available water credit under Rule 25.5 has been obtained for the property. Documentation of the water use credits to be	

Table 2.5-1 Summary of Significant Environmental Impacts and Mitigation		
Environmental Impact	Mitigation	Level of Significance After Mitigation
for this project, specifically water from the Cal-Am system that have not been accessed in the recent past. This incremental increase in water demand in comparison to current conditions has the potential to impact water supply.	applied to the site will also require verification by the MPWMD of permanent abandonment of use and final determination of the water use credit for the site. Evidence shall include written verification of 8.226 AFY and a letter from the MPWMD District Manager that the water credit is consistent with previous use of the Carmel Convalescent Hospital as applied under Rule 25.5 and that the application of the water credit would not impact the Monterey County Water Allocation. The project applicant/developer shall provide further evidence to the Monterey County Planning Department that water use on the site shall reduce the water demand on the site in comparison with historic use of the Carmel Convalescent Hospital by 10% in accordance with Monterey County Ordinance 3310 (Code 18.46) requirements.. This evidence shall be provided for review and approval by the Monterey County Planning Department and Monterey County Water Resources Agency for review and approval prior to recordation of the proposed project's final map.	
5.0 CEQA Considerations		
Development of the proposed project would contribute to a potentially significant cumulative impact upon traffic and circulation within the vicinity of the project site.	4.13-4 See mitigation regarding potential cumulative traffic impact.	Less than Significant.

3.0 PROJECT DESCRIPTION

This section presents the project description as required by CEQA Guidelines Section 15124. The project, called the Villas de Carmelo, proposes infill development as redevelopment and rehabilitation of existing structures as well as new residential development on a 3.68-acre site. The proposed project would increase the development intensity of an underutilized lot. The project is located in the unincorporated Coastal Zone of Monterey County, bordering the City of Carmel-by-the-Sea in an urbanized area. The project site is the site of the former Carmel Hospital and is currently developed with three buildings, parking lots, driveways, and paved pathways. Two of the buildings are considered historically significant: the former hospital building and a garage/shop building. The existing hospital building and garage/shop building would be preserved by the proposed project and additional new buildings will be constructed on the site to accommodate the proposed forty-six (46) residential units, as well as ancillary uses such as underground parking, a recreational room, gym, and storage. The project site is currently designated as Medium Density Residential, and existing zoning allows two (2) units per acre. The project proposes a Local Coastal Plan Amendment to change the land use designation of the project site to high density residential allowing for twelve and a half (12.5) units per acre on the project site. Additionally, the project proposes modification to the requirements of the County Inclusionary Ordinance #04185 to allow the required onsite inclusionary units all to be designated at the moderate income level. The project entitlements will include, but not be limited to, Carmel Area Land Use Plan and Zoning Amendments, Coastal Development Permit, and Tentative Subdivision Map approval.

3.1 PROJECT LOCATION AND AREA

The Villas de Carmelo project site is located at 24945 Valley Way in the unincorporated Coastal Zone of Monterey County. The site is bordered by the City of Carmel-by-the-Sea on its western boundary and is within the City's Sphere of Influence boundary as determined by the Monterey County Local Agency Formation Commission. (See **Figure 3-1, Regional Map** and **Figure 3-2 Vicinity Map**). Areas of unincorporated Coastal Zone of Monterey County border the project site to the north and south.

The project site is bounded to the southwest by Valley Way, a County-maintained road, to the east by Highway 1 (State-maintained), and southeast by a private drive known as Hatton Lane leading to a four-building apartment complex that contains 14 units. The site's southern border is located 400 feet from the intersection of Valley Way and Highway 1. Single-family homes are located on the northern and northwestern borders of the property. The project site is currently accessed via Highway 1 and via Valley Way. The property is made up of three legal lots of record. The Assessor's Parcel Numbers are 009-061-002, 009-061-003, and 009-061-005.

The project parcel is located in the Hatton Fields area of the Carmel Area Land Use Plan. The Hatton Fields area has generally been developed to the extent that the natural environment has been significantly altered and that the residential use is perceived as the primary use of the land. The size, density, and character of this residential area vary, but in general, single-family residential parcels in this area average from 3,000 square feet to approximately one quarter of an acre. In general, this area has adequate public services and facilities and has access to commercial services located in the City of Carmel-by-the-Sea or at the mouth of Carmel Valley.

3.2 EXISTING CONDITIONS AND PROJECT BACKGROUND

The site is almost entirely covered with parking lots, driveways, paved pathways, two out-buildings, and the hospital building itself. The portions of the project site that are not paved have been extensively landscaped with numerous ornamental tree, shrub, vine, and herbaceous species. Site vegetation can be

characterized primarily as areas of mixed Monterey pine and coast live oak woodland with an understory of landscaped shrubs and groundcover. The site's topography consists of a raised northern area gently sloping southwards. Elevation ranges from 445 feet above sea level at its southern border to 505 feet in the northern extent of the project site. Storm water flows from the site drains as overland flow to localized depressions and/or ditches adjacent to Valley Way and Highway 1.

The project site currently contains three buildings: the hospital building, constructed between 1928 and 1930; a garage/shop building; and a separated one-story building known as the nurses' quarters. The hospital building and garage/shop building were designed by master architect Gardner A. Dailey in the Spanish Eclectic architectural style. The hospital and garage/shop buildings are considered historically significant. The nurses' quarters is a separate one-story building and is not considered to be historically significant. The site was originally developed as a clinic, later became a general hospital serving the Monterey Peninsula, and was most recently occupied by a 78-bed convalescent hospital, Alzheimer's clinic, and pre-school. Other than use of the nurses' quarters, the site has been essentially abandoned since 2005. The existing buildings are in decline and require extensive renovation and rehabilitation.

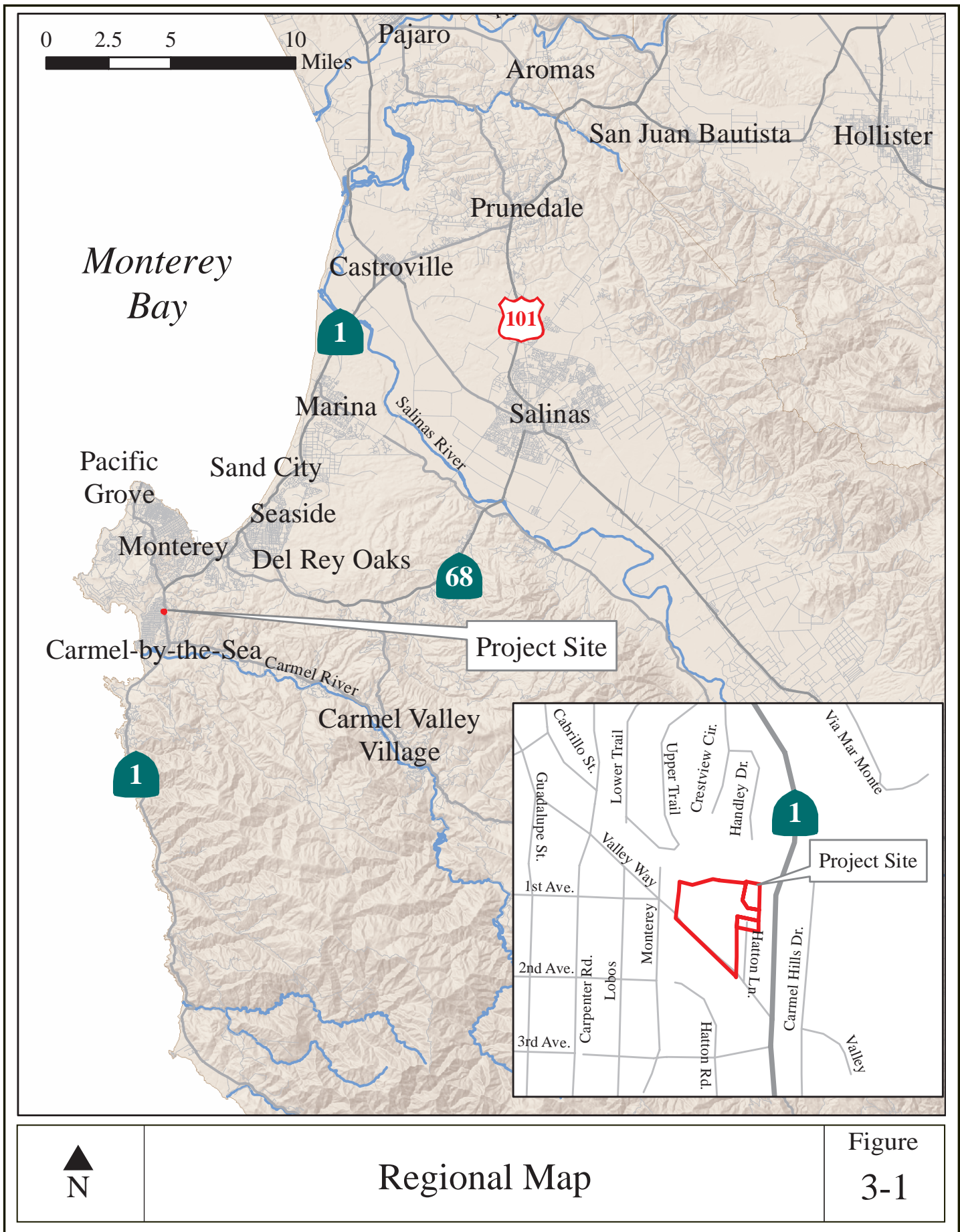
3.3 PROJECT SITE HISTORY

The original buildings, the main hospital building and the garage/shop, were constructed between 1928 and 1930. The structures were constructed to provide facilities for a clinic to study metabolic diseases, which opened as the Grace Velie Harris Metabolic Clinic in 1930 with 25 patient rooms. The original clinic facility consisted of the main hospital building and the garage/shop building, surrounded by stone terraced landscaping and driveways near the buildings with a large lawn and gardens to the south of the property. The clinic was reorganized and opened as a new general hospital, the Peninsula Community Hospital, in 1934. In 1938, the nurses' quarters building was constructed on the southern portion of the property, and the main hospital building was extended eastward with add-on construction. In 1962, new facilities for the Peninsula Community Hospital opened north of the original location. With the closing of the original hospital, extensive interior alterations were conducted to the main hospital building in order to be reopened in 1963 as the Carmel Convalescent Hospital. The former nurses' quarters building was later used for an alcoholism treatment program and for the care of Alzheimer's disease patients. The garage/shop building began to be periodically used to house a nursery school. In 2005, the Carmel Convalescent Hospital was closed, and the project site has largely been abandoned since this time. A men's support group currently utilizes, on a temporary basis, the former nurse's quarters building for weekly and monthly meetings.

3.4 PROJECT OBJECTIVES

The applicants have identified the purpose of the project as adaptive reuse of two historic buildings and installation of a residential community of market rate and affordable residences. The project objectives are as follows:

- Rehabilitate and preserve a historic community institution;
- Establish a high quality residential village community to house future residents within the County;
- Provide market rate, affordable, and work force housing stock to the Monterey Peninsula with 20% designated as affordable and workforce housing; and
- Reuse of vacated buildings on a site with infill development.





3.5 PROJECT CHARACTERISTICS – VILLAS DE CARMELO PROJECT

The project proposes the establishment of a residential condominium community on a 3.68-acre project site. The proposed project would construct 46 condominium units and involve adaptive reuse and rehabilitation of the existing historic hospital structure. The project also proposes underground parking, a recreation room, gym, and storage. The Villas de Carmelo project is based upon a Tentative Map, which displays proposed lots and infrastructure improvements (see **Figure 3-3, Layout Plan**). **Table 3.5-1** below identifies the residential components of the project by square footage.

Table 3.5-1 Residential Types and Square Footage		
Type	Residential Units	Square Footage
Affordable	9 (19.5%)	10,150 sq ft
Work Force	4 (8.5%)	5,500 sq ft
Market Rate	33 (72%)	61,550 sq ft
TOTAL	46	77,200 sq ft
Note: This is considered “liveable” area and does not include garages or exterior areas.		

Project Components: The proposed project consists of the rehabilitation and adaptive reuse of two of the three existing buildings on the site and the demolition of the nurses’ quarters building. In addition, a small semi-attached shed located on the northern extent of the hospital building will be demolished. Refer to **Figure 3-4, Existing Project Site** for the locations of these buildings on the site and **Table 3.5-2** for the identification of unit types. The following outlines the rehabilitation and redevelopment of the existing structures, the new construction, and proposed demolition on the project site:

Existing Hospital Building: The proposed project consists of the rehabilitation and adaptive reuse of 90% of the existing 11,500 square-foot hospital structure. This would result in the renovation and conversion of 10,350 square feet of the existing hospital structure into 9 condominium units. The renovated hospital building will also house a recreation room and gym located in the building’s basement.

Garage/Shop Building: The original garage/shop building will be converted into 3 residential units including one affordable unit and two workforce units.

Proposed New Construction: The proposed project would result in the construction of ten new buildings situated throughout the site. These buildings would house a total of 34 newly constructed condominium units.

Demolition: The project would involve demolition of the nurses’ quarters building and demolition of a semi-attached shed located on the northern extent of the hospital building. The demolition of these structures allows for the new construction of the new buildings on the project site with the hospital building proposed as the focal point of the residential village.

The average maximum building height proposed for the structures is between 25 and 35 feet above median grade. The newly-built structures would be two to three stories in height. The project would also include common space for underground and surface parking, a recreation room, gym, and storage facilities. Total parking provided on the project site would be 108 spaces, with 90 covered spaces and 18 uncovered spaces. Project development would result in the construction of 46 residential units proposed, with a mix of market rate and affordable housing including: 33 market rate condominiums (1,350-2,550 square feet), 9 affordable housing units (1,100-1,350 square feet), and 4 workforce housing units (1,350-1,450 square feet). These units are identified in **Table 3.5-2**.

Table 3.5-2 Unit Count By Type and Location				
Unit Number	Unit Type/Category	Size of Unit (Square Feet)	Rehab or New Unit	Number of Units
Affordable				
1-8	Affordable moderate-income, 2 bedroom/1 bath units	1100	New	8
11*	Affordable moderate-income, 2 bedroom/2 bath units	1350	Rehab*	1
SUBTOTAL Affordable				9
Workforce				
9, 10*	Workforce 2 bedroom/2 bath	1350-1450	Rehab*	2
12,13	Workforce, 2 bedroom units	1350-1400	New	2
SUBTOTAL Workforce				4
Market Rate				
14-23, 26, 27	2 bedroom/2-2.5 bath units	1350-1700	New	12
24-25, 28, 29	3 bedroom/2.5 bath units	2550	New	4
30-34	3 bedroom/2.5 bath units	2000-2500	New	4
35, 37-40, 42*	3 bedroom/2.5 bath units	1700-2100	Rehab*	7
36, 41*	2 bedroom/2 bath units	1400-1600	Rehab*	2
43-46	3 bedroom/2.5 bath units	2000	New	4
SUBTOTAL Market Rate				33
TOTAL				46
Note: * Units 9-11 located in converted original garage/shop building; * Units 34-42 located in converted hospital building				

Land Use: The project site is currently designated as Medium Density Residential (MDR) and zoned for Medium Density Residential, 2 units per acre in a design overlay district in the Coastal Zone (MDR/2-D(CZ)). (See **Figure 3-5, Land Use Zoning Map**). Existing zoning allows 2 units per acre. Development of the proposed project requires amendment of the Carmel Area Land Use Plan/Local Coastal Program to: 1) include HDR designation and 2) amend the land use designation on the project site from existing Medium Density Residential to proposed High Density Residential. The project also proposes rezoning from the existing designation of MDR/2 (Medium Density Residential/2 units per acre) to proposed HDR/12.5 (High Density Residential/12.5 units per acre) in the Coastal Zone.



Source: Earthform Design, 2007



Project Layout Plan

Figure
3-3



Existing Project Site

Figure
3-4

In order to develop the site at the density proposed, a new zoning designation is required for the Carmel Area Land Use Plan. The County has provided a description of the proposed zoning language for the proposed zoning district (High Density Residential Zoning District “HDR (CZ)”. A summary of the text is provided below.

High Density Residential (HDR): High Density Residential areas are appropriate for a broad range of higher intensity residential uses (5-20 units/acre) and a blend of housing types. Recreational, public/quasi-public, and other uses are incidental and subordinate to the residential use and character of the area. High density use is allowed in accordance with the site-specific evaluation of resource and public facility constraints, and where urban services - i.e., public water, sewer, roads, public transit, fire protection - are available. New development in these areas is designated at densities to allow a mix of housing types, including moderate to low income housing, in order to facilitate a comprehensively planned project. Direct access from Highway One shall not be allowed where alternative access is possible.

The project would also require an amendment to the Carmel Area Coastal Implementation Plan (CIP) to add the zoning designation category of High Density Residential District to the CIP. The full text of the proposed land use plan amendment is presented in the **Land Use Section** of this DEIR.

Access: The project site is currently accessed via Highway 1 and via Valley Way. Implementation of the proposed project would result in closure of the Highway 1 access, and direct access to the project site would be provided via Valley Way. The existing entrance to the site from Valley Way would be moved approximately 180 feet south on Valley Way; however, the existing entrance would remain accessible for fire and/or emergency response. One individual unit, Unit 23, would have a direct access driveway off of Valley Way.

Grading: The project will require grading on the site to facilitate construction of proposed uses. The project site would be graded to utilize the existing topography, including grading of slopes for parking garages, and to minimize the height and visibility of the buildings. Proposed grading would involve approximately 13,242 cubic yards (CY) of cut/fill, including the creation of underground parking through excavation activities. The proposed grading and earthwork volume analysis are stated in the Cut and Fill Plan which was submitted to the County and dated September 8, 2008. The grading is proposed to occur throughout most of the site as identified on the proposed master grading plan submitted by the applicants and presented in **Figure 4.6-1** within **Section 4.6 Geology, Soils, and Mineral Resources**.

Building Construction: New structures would be designed in a Spanish/Mediterranean style that is complementary to the existing hospital building. Roofing material would be clay tiles and the exterior skin of the buildings would be stucco. The proposed new condominium buildings would be two and three-story structures with the three story structures placed in locations that can take advantage of the topography to minimize building heights. Building heights would not exceed 35 feet. The proposed 10 new buildings would be constructed in a scattered design on the project site. The proposed project would be constructed in two phases. Phase 1 would include all planned demolition and grading activities on the project site, as well as all utility access infrastructure extensions. Additionally, Phase 1 would involve construction of thirty of the proposed forty-six units on the project site (units 1-13 and units 30-46). Phase 2 would involve construction of the remaining proposed sixteen units on the project site (units 14-29). A total of eighteen months has been estimated for the entire project construction period with components that would generate the greatest noise impacts occurring within a period of eleven months.

Street System: The project proposes a Y-shaped road system, to be named Via Carmelo, to serve the project site. The road would be constructed with permeable materials. Access to the project site would be provided via Valley Way, a Monterey County and City of Carmel-by-the-Sea maintained road. The

existing entrance will remain accessible for emergency response services, and a new entrance is proposed south of the existing entrance on Valley Way. Highway 1 and Ocean Avenue are considered arterials and provide the backbone circulation within the project area. Carpenter Street, a collector street, passes near the project site while Valley Way, a local street, adjoins the perimeter and provides access to the project site. Ocean Avenue and Carpenter Streets are City of Carmel-by-the-Sea maintained roads. The aforementioned roadways would be impacted by the proposed project. Other local streets are located throughout the residential neighborhood surrounding the project site. There is no pedestrian sidewalk on Valley Way. Existing access to the project site via Highway 1 would be abandoned.

Storm Drainage System: The proposed project would result in increased impervious area (paved surfaces and buildings) on the project site. Buildout of the proposed project would result in a total of 41,945 square feet of additional building coverage and 2,689 square feet of additional paved areas. Current run-off from the project is directed to Highway 1 and Valley Way. The project proposes to accommodate storm water run-off onsite with storm-water retention facilities. Storm water runoff is proposed to be routed as surface flow to a proposed underground facility that would release into existing drainages. The proposed Stormwater Control Plan is discussed in **Section 4.8 Hydrology and Water Quality** and is included as **Figure 4.8-1**.

Sanitary Sewer System: Carmel Area Wastewater District (CAWD) provides wastewater collection, treatment, and disposal services to the project area, and access to the District's system exists on the project site. Wastewater from the project area is pumped to the CAWD Wastewater Treatment Facility, located 1.5 miles south of the project site on Highway 1. The CAWD Wastewater Treatment Facility is a tertiary plant that provides reclaimed water for landscape irrigation during the dry season, and when irrigation demand is low during the wet season, the treated effluent is discharged into the Pacific Ocean via an existing permitted outfall. Buildout of the project would generate approximately 0.061 to 0.063 million gallons per day (MGD) of wastewater (personal correspondence, Sanford Veile, August 6, 2008). The sanitary sewer system is evaluated in **Section 4.14 Utilities and Service Systems**.

Water System: The proposed project is located in a water service area provided for by the California American Water Company (Cal-Am), and currently water service and infrastructure serve the project site. The project site has an existing water allocation of 8.226 acre-feet per year (AFY) according to the Monterey Peninsula Water Management District under its Rule 25.5. As stated in the Initial Water Use/Nitrate Impact Questionnaire dated February 6, 2008 submitted as part of the project application materials, the proposed project has a water demand of 6.865 AFY. The project would be served water from existing water mains and connections at the former entrance and near the proposed entrance to the project site from Valley Way. The water system is evaluated in **Section 4.14 Utilities and Service Systems**.

Solid Waste: Within the project area, solid waste services are provided by Waste Management, Inc. on an operational agreement with the Monterey Regional Waste Management District, which serves the greater Monterey Peninsula area and owns and operates the Monterey Peninsula Landfill in Marina, CA. Solid waste generation from the project site could be as high as 333.27 pounds per day, or 60.8 tons annually based upon California Integrated Waste Management Board factors for multi-family residential units. Further analysis of solid waste generation estimates and evaluation of impacts are evaluated in **Section 4.14 Utilities and Service Systems**.

Public Improvements: The project would provide public improvements, including the following: an internal access road, curbs, and on-site stormwater-detention facilities, and streetlights. In addition, intersection modifications would be provided to include mitigation improvements and accommodate project traffic volumes (refer to **Section 4.13 Traffic and Circulation**).

Energy and Communications: All new public utilities and equipment within the project area will be placed underground. It is anticipated that the following utility services will be provided for the project: 1) natural gas lines and facilities – PG&E; 2) electricity – PG&E; 3) cable television – Comcast Communications; and 4) telephone – AT&T. System connections exist either on the project site or immediately adjacent to the project site for all of the listed utility providers.

Construction Schedule: Project development would occur over a 17-month construction schedule. A preliminary construction management plan was submitted as part of the project application materials.

3.6 REQUIRED PERMITS AND APPROVALS

This Draft EIR is an informational document for both agency decision-makers and the public. Monterey County is the lead agency responsible for certification of the Final EIR and approval of potential future project permits. The following is a listing of permits and approvals under the County and other jurisdictions that would be required for the proposed project's implementation.

Monterey County

- Certification of the EIR and Adoption of Mitigation Monitoring Program;
- Amendment of the Carmel Area Land Use Plan/Local Coastal Program including new and amended policies to incorporate the High Density Residential land use designation and tree removal;
- Amendment of the Coastal Implementation Plan to add the zoning designation of "High Density Residential/12.5" within the project area;
- Modification to Inclusionary Ordinance #04185 pursuant to Section 18.40.050B2 for approval of all onsite inclusionary housing units of the proposed project to be designated as moderate income level housing;
- Approval of Site Plan and Design Review;
- Tentative Subdivision Map Review and Approval consistent with the proposed design and zoning standards;
- Approval of Final Maps and Improvement Plans; and
- Review and approval of all required permits that include, but are not limited to, tree removal, building, grading, encroachment, and occupancy permits.

Agencies

- California Coastal Commission – Certification of Amendment to the Carmel Area Land Use Plan/Local Coastal Program
- Monterey Peninsula Water Management District – Water Release Form
- Carmel Area Wastewater District – Utility Connections.
- Regional Water Quality Control Board – NPDES Permit.
- Caltrans – Encroachment Permits for abandonment of access, infrastructure improvements, landscaping, etc.
- Other agencies with permit or review authority over some aspect of the project include the Monterey Regional Waste Management District, Monterey Regional Water Pollution Control Agency, Monterey Bay Unified Air Pollution Control District, Carmel Unified School District, and the California Department of Fish & Game.

4.0 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

This section describes each of the environmental categories affected by the proposed project. Each category consists of three parts: Introduction, Environmental Setting, and Impacts and Mitigation Measures. Environmental impacts can be described as: less-than-significant impacts, potentially significant, significant adverse impacts, and unavoidable significant impacts. The specific criteria for determining the significance of a particular impact are identified prior to the impact discussion in each issue section and are consistent with significance criteria set forth in CEQA Guidelines and local, regional, state, or federal standards. Although not required by CEQA, mitigation measures may be identified for less-than-significant impacts to further reduce potential effects.

Each section of this Draft EIR identifies applicable policies from the Monterey County General Plan and Carmel Area Land Use Plan. Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

A separate Mitigation Monitoring Program (as required by Public Resources Code §21081.6) will be developed in conjunction with the Final EIR, which outlines the mitigation measures and the monitoring and reporting methods that would be employed. The Mitigation Monitoring Program will be considered for adoption by the County of Monterey at the time the Final EIR is certified.

Under CEQA, a significant impact is defined as a substantial, or potentially substantial, adverse change in the environment (Public Resources Code §21068). The guidelines implementing CEQA direct that this determination be based on scientific and factual data. The specific criteria for determining the significance of a particular impact are identified prior to the impact discussion in each section and are consistent with significance criteria set forth in the guidelines implementing CEQA.

According to Section 15125 of the CEQA Guidelines, an EIR is to include a description of the existing physical environmental conditions in the vicinity of the project to provide the “baseline physical conditions” against which project-related changes can be compared. Normally, the baseline condition is the physical condition that exists at the start of the environmental review process or when the Notice of Preparation (NOP) is published. This Draft EIR therefore considers the proposed project’s impacts compared to the existing conditions on the site at the time of submittal of the NOP for the Draft EIR. The NOP for this Draft EIR was published on July 11, 2008. It should be noted for the analysis in the Draft EIR analyzing water availability, the EIR recognizes that current conditions allow for water service and availability to the site due to the history of use of the site, current entitlements and water credits allowed under existing permits and regulations of the area’s water management entity (Monterey Peninsula Water Management District). Therefore, although publication of the NOP for this Draft EIR occurred in 2008, three years after the closure of the operation of the convalescent hospital, certain water credits remain available for the site under baseline conditions subject to the rules and regulations of the water district. This is discussed in the Public Utilities Section of this EIR. For all other sections of the EIR, although past use of the site is acknowledged, the proposed project’s potential environmental impacts are measured against the physical conditions on the project site at the start of the NOP.

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4.1 AESTHETICS

Introduction

This section assesses the existing visual quality of the project site and potential changes to the visual and aesthetic environment that would result from the proposed development. Proposed architectural building elevations are included as **Appendix B**. The project site was ‘staked and flagged’ to the approval of Monterey County in order to provide a visual representation of the proposed development by outlining buildings and additions to buildings on the project property. The visual analysis assesses the potential for the proposed project to alter the existing visual character of the site and surrounding areas. The visual analysis is based on field surveys conducted by the EIR consultant as well as photos of the project site from selected vantage points and circulation routes. The photo vantage points were selected based upon field survey and consultations with County staff. After confirmation of viewing locations, County staff required preparation of visual simulations to be prepared by the project architect. The visual simulations of the proposed development prepared by the project architect were also reviewed by County staff and the EIR consultant. Prior to the site visit, aerial photographs and maps were also studied, and areas of special interest or potential scenic value were noted for assessment during the field survey.

A visual assessment was conducted by the EIR consultant, and **Figure 4.1-1** identifies the locations of the visual assessment’s viewpoints. The visual analysis also considered applicable data in the project’s application, including proposed design guidelines, setbacks and height limits, and zoning. In assessing the visual quality of a site, it is important to consider that visual quality is not determined solely by the physical attributes of a project, but also by the relationship between the project and the total visual environment.

Methodology

As part of the visual analysis, the visual character and quality of the project site and adjacent areas located in the Highway 1 corridor were characterized using the criteria for visual impact assessments developed by the Federal Highway Administration (FHWA). Although these criteria were developed to evaluate the potential visual impacts associated with individual highway projects, the terminology developed by FHWA to describe the existing visual quality and character of a particular area is still useful for the purposes of CEQA review. As a result, the following analysis was guided by specific terminology developed by FHWA to describe the existing visual environment of a project site and its surrounding area. The following is a brief description of each of the respective visual criteria:

- Vividness is defined as the visual power of landscape components as they combine in striking or distinctive visual patterns. Typical characteristics representative of vividness include distinctive visual elements, such as trees, distant mountain ranges, scenic vistas, or other prominent visual landmarks.
- Intactness is defined as the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, as well as natural settings.
- Unity is defined as the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the artificial landscape.

According to the U.S. Forest Service and FHWA, these elements are the basic components used to describe visual character. In addition to the criteria described above, other important factors utilized as

part of a visual assessment include the ability to determine the relative importance of existing views and scenic resources. Although the importance of an existing view may be subject to the perspective of the viewer, CEQA identifies that certain visual elements, such as scenic vistas, warrant consideration and impacts to these resources should be identified and mitigated where appropriate. As a result, it is important that a visual assessment also consider a project's potential to limit and/or otherwise obstruct existing views as perceived from the project site and surrounding area. Accordingly, the following visual analysis identifies the existing visual character of the site, as well as visually sensitive locations immediately adjacent to the project site in the Highway 1 corridor.

Setting

The proposed project would be located on a 3.68-acre site in the unincorporated Coastal Zone of Monterey County bordered by the city of Carmel-by-the-Sea. Prominent visual resources in the project vicinity include the Monterey Peninsula, Highway 1, Carmel Beach, Carmel Valley, Del Monte Forest, Point Lobos, and the Pacific Ocean. The project site is bounded by Valley Way to the southwest, Highway 1 to the east, and a private drive known as Hatton Lane to the southeast. Single-family homes are located on the northern and northwestern borders of the property, and a four-building apartment complex is located to the southeast.

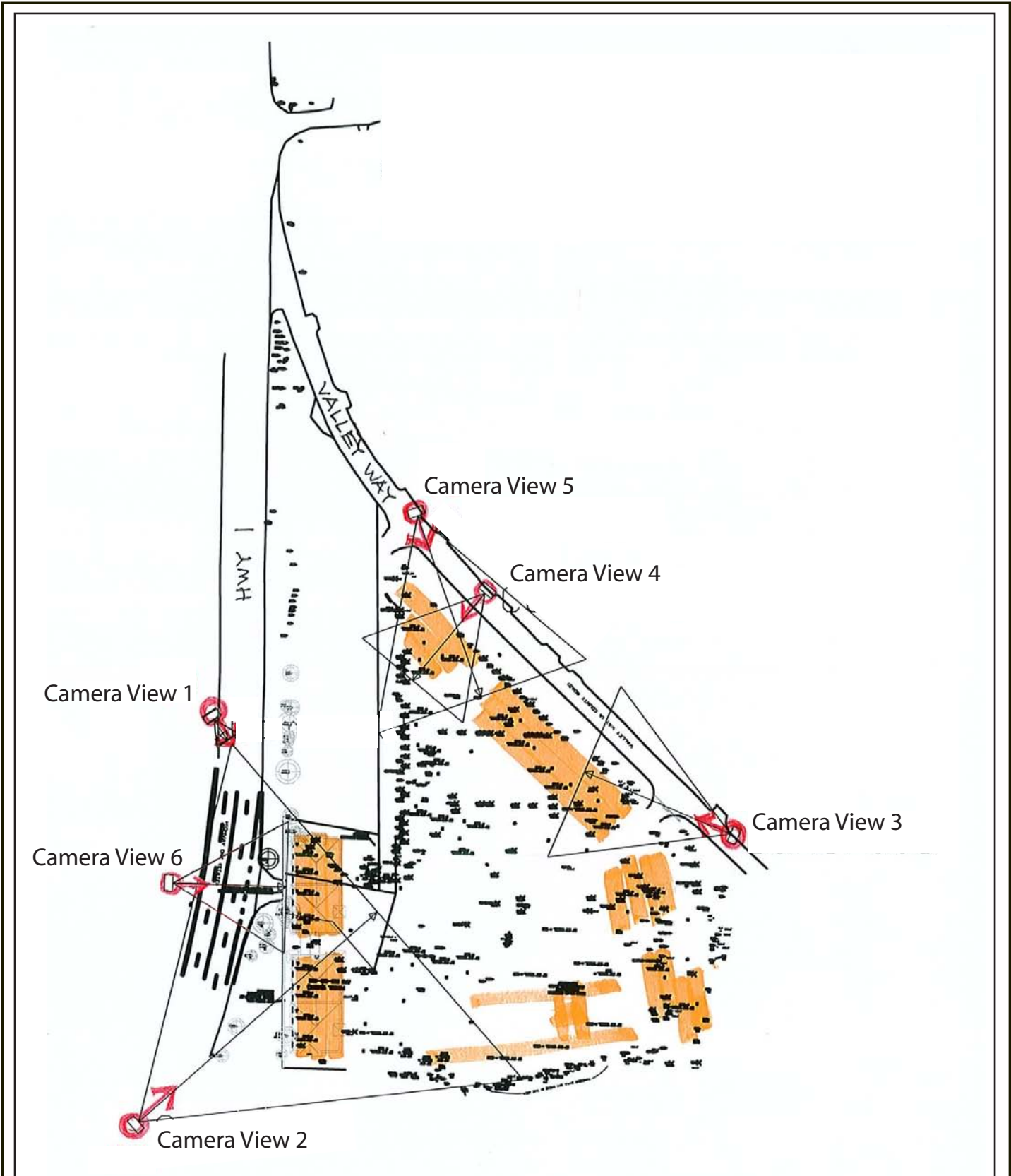
The existing visual character of the site consists of three buildings in various states of disrepair or abandonment. The buildings were originally used as a hospital, garage/shop, and nurses' quarters. Approximately 50% of the project site is occupied with these buildings and paved areas. The portions of the project site that are not paved have been extensively landscaped with numerous ornamental tree, shrub, vine, and herbaceous species. Site vegetation can be characterized primarily as areas of mixed Monterey pine and coast live oak woodland with an understory of landscaped shrubs and groundcover.

The project site is visible from multiple viewpoints on Highway 1 east of the project site. Additionally, the project site is visible from Valley Way south and west of the project site, from single family residences located west and north of the project site, and from the apartment complex located south of the project site. **Figures 4.1-2A, 4.1-2B, 4.1-2C, and 4.1-2D** display photographs of the existing project site from surrounding viewpoints with the flagging of proposed buildings as components of the project outlined that would be visible from these viewpoints. Additionally, the project site is partially visible from private residences located in the neighborhood areas accessed via High Meadow Drive.

Regulatory Environment

National Scenic Byways Program. Highway 1 from Carmel south to Big Sur (and beyond) is designated as an "All American Road" under the Federal Highway Administration's National Scenic Byways Program. All roads nationally designated are considered part of America's Byways collection and must possess at least one of these six intrinsic qualities: historic, cultural, natural, scenic, recreational, and/or archaeological. To receive an All-American Road designation, a road must possess multiple intrinsic qualities that are nationally significant and contain one-of-a-kind features that do not exist elsewhere. The road must also be considered a "destination unto itself," and must provide an exceptional travel experience.

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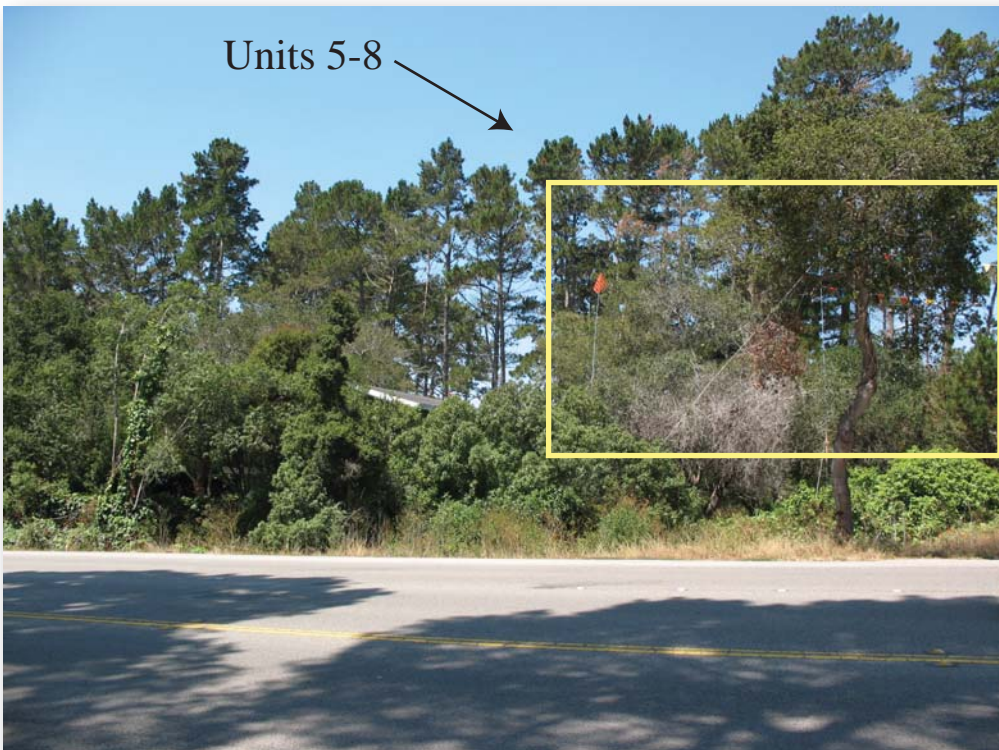


Visual Assessment Locations

Figure
4.1-1



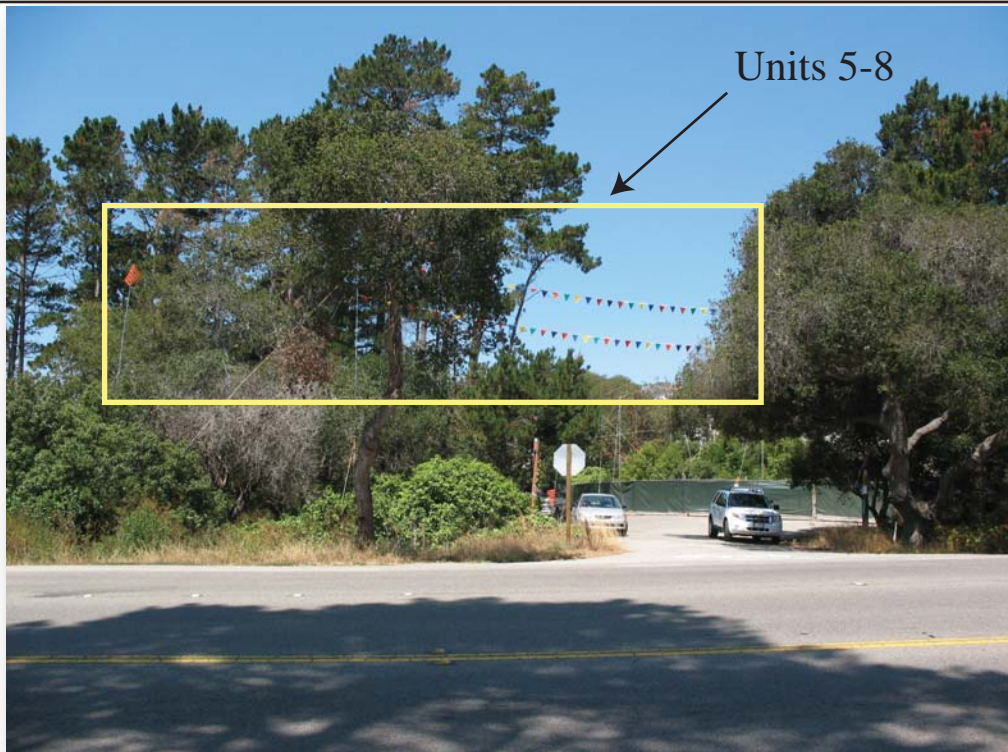
1. Camera View 1 - Site viewed from southeast on opposite side of Highway 1.



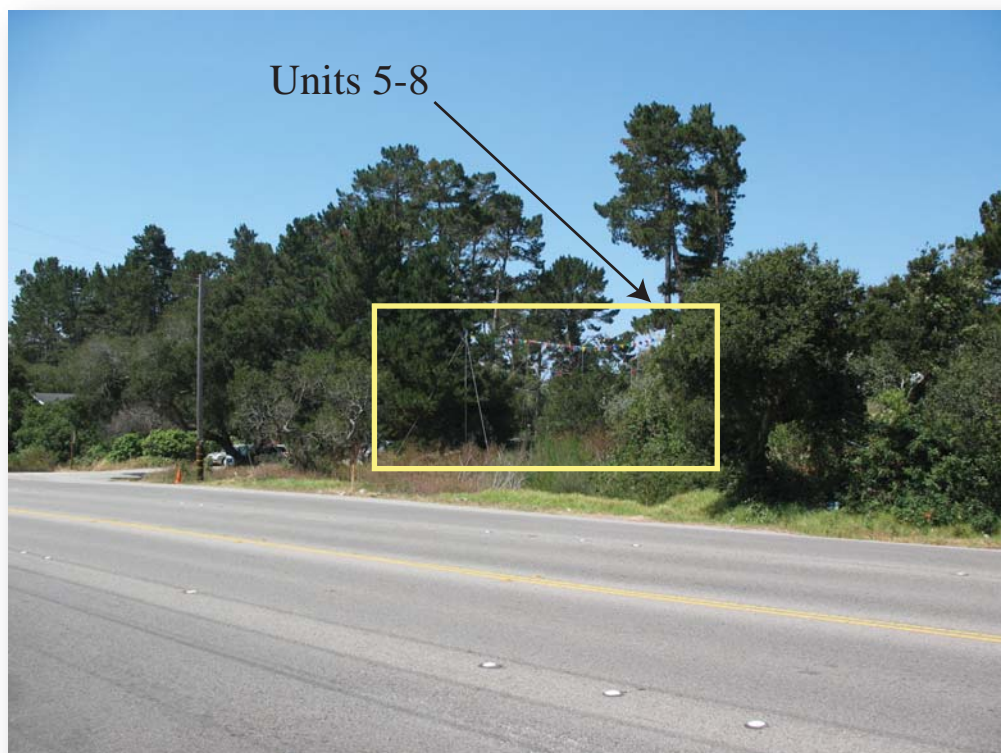
2. Camera View 6 - Site viewed from east across Highway 1, north of Highway 1 entrance.

Site Photos

Figure
4.1-2A



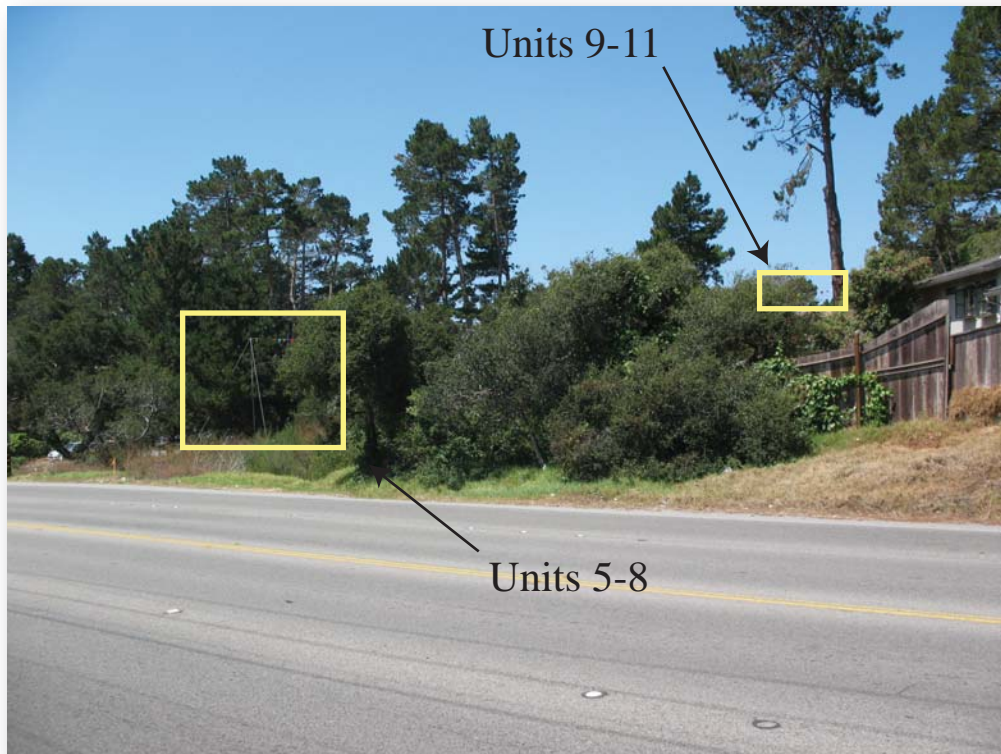
3. Camera View 6 - Site viewed from existing Highway 1 entrance.



4. Camera View 2 - Site viewed from northeast on opposite side of Highway 1.

Site Photos

Figure
4.1-2B



5. Camera View 2 - Site viewed from northeast on opposite side of Highway 1.



6. Camera View 3 - Site viewed from west at existing Valley Way entrance.

Site Photos

Figure
4.1-2C



7. Camera View 4 - Site viewed from southwest from Valley Way.



8. Camera View 5 - Site viewed from southwest from Valley Way.

Site Photos

Figure
4.1-2D

California State Scenic Highway Program. The California State Scenic Highway program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The program includes a list of highways that are either designated or eligible for designation as a scenic highway. Portions of Highway 1 along the California coastline are either designated as a State Scenic Highway or eligible for State Scenic Highway's designation. The section of Highway 1 adjacent to the project site is a designated State Scenic Highway. This section of Highway 1 traverses a series of hills, offering views of Carmel-by-the-Sea, Carmel Valley, Point Lobos, and the Pacific Ocean.

Monterey County General Plan. The Monterey County General Plan provides policies for protection of scenic resources. The following policies are applicable to the project site and its scenic resources:

Policy 26.1.6 Development which preserves and enhances the County's scenic qualities shall be encouraged.

Policy 26.1.8 Development in scenic road and highway corridors shall be governed by policies located in the transportation section of this General Plan.

Policy 26.1.20 All exterior lighting shall be unobtrusive and constructed or located so that only the intended area is illuminated, long range visibility is reduced, and offsite glare is fully controlled.

Policy 40.2.1 Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.

Policy 40.2.2 Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density which, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.

Carmel Area Land Use Plan / Local Coastal Program. The Carmel Area Land Use Plan provides policies for protection of scenic resources. The following policies are applicable to the project site and its potential scenic resources:

Policy 2.2.2 To protect scenic resources of the Carmel area in perpetuity, all future development within the viewshed must harmonize and be clearly subordinate to the natural scenic character of the area. All categories of public and private land use development including all structures, the construction of public and private roads, utilities, and lighting must conform to the basic viewshed policy of minimum visibility except where otherwise stated in the plan.

Policy 2.2.3.6 Structures shall be subordinate to and blended into the environment, using appropriate materials to that effect. Where necessary, modification of plans shall be required for siting, structural design, color, texture, building materials, access, and screening.

Policy 2.2.3.7 Structures shall be located and designed to minimize tree removal and grading for the building site and access road. Where earth movement would result in extensive slope disturbance or scarring visible from public viewing points and corridors, such activity will not be allowed. Extensive landform alteration shall not be permitted.

Policy 2.2.3.8 Landscape screening and restoration shall consist of plant and tree species consistent with the surrounding vegetation. Screening on open grassy slopes and ridges should be avoided.

Policy 2.2.4.1 All applications for development within the viewshed shall require individual on-site investigations. The dimensions, height, and rooflines of proposed buildings shall be accurately indicated by poles and access roads by stakes with flags.

Policy 2.2.4.6 The existing forested corridor along Highway 1 shall be maintained as a scenic resource and natural screen for existing and new development. New development along Highway 1 shall be sufficiently set back to preserve the forested corridor effect and minimize visual impact.

Policy 2.2.4.10 The following siting and design control measures shall be applied to new development to ensure protection of the Carmel area's scenic resources, including shoreline and ocean views:

- a. On ridges, buildings shall be sufficiently set back from the precipice to avoid silhouetting and to be as visually unobtrusive as possible. Buildings located on slopes shall be sited on existing level areas and sufficiently set back from the frontal face. Buildings should not be located on slopes exceeding 30 percent, except when all other plan guides are met and siting on slopes over 30 percent better achieves siting consistent with the policies of the plan.
- b. Where clustering of new residential or visitor-serving development will preserve desirable scenic and open space areas or enable structures to be sited out of the viewshed, it shall be preferred to more dispersed building site plans.
- c. Structures located in the viewshed shall be designed so that they blend into the site and surroundings. The exterior of buildings must give the general appearance of natural materials (e.g., buildings should be of weathered wood or painted in "earth" tones). The height and bulk of buildings shall be modified as necessary to protect the viewshed.
- d. Exterior lighting shall be adequately shielded or shall be designed at near-ground level and directed downwards to reduce its long-range visibility.
- e. Existing trees and other native vegetation should be retained to the maximum extent possible both during the construction process and after the development is completed. Landscape screening may be used wherever a moderate extension of native forested and chaparral areas is appropriate. All new landscaping must be compatible with the scenic character of the area and should retain existing shoreline and ocean views.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Relevant Project Characteristics

The project site is the former Carmel Hospital site, which is located on 3.68 acres between Highway 1 and Valley Way in the unincorporated Coastal Zone of Monterey County. The Villas de Carmelo project proposes the rehabilitation and adaptive reuse of most of the existing 11,500 square-foot hospital structure. Demolition on the project site would include the former nurses' quarters building, an extension of the original hospital building, and a semi-attached shed located on the northern extent of the hospital building. The proposed project's implementation would consist of conversion of 10,350 square feet of the existing hospital structure into 9 condominium units and construction of 37 additional condominium units in 10 to-be-constructed buildings, for a total of 46 condominium units. The proposed residential design is a Spanish/Mediterranean style. Additionally, the project proposes a "day one" mature landscaping plan utilizing large box trees and hedging designed to provide extensive screening of buildings to be constructed on the project site as part of the construction phase on the site.

The project site currently contains three buildings: the hospital building, a garage/shop building, and a separated former nurses' housing one-story building. The site has largely been abandoned since 2005, and the buildings are in various states of disrepair. The western edge of the project site fronts Valley Way and is visible at various vantage points along Valley Way. The proposed building housing Units 24-29 that would be constructed along the site's border with Valley Way would be prominently visible from Valley Way. Unit 32 would be located directly adjacent to an existing single family residence northwest of the project site.

The eastern edge of the project site borders Highway 1 and is visible at various vantage points along this highway. As previously mentioned, this segment of Highway 1 is a designated scenic corridor. Additionally, the project site is visible from private residences located around the project site and partially visible from private residences accessed via High Meadow Drive. Views of the project site from these locations include the existing hospital building structure and two outbuildings, as well as views of existing trees. Two buildings are proposed to house Units 1-8 adjacent to Highway 1. The flagging and staking conducted on the site identify two height elevations on the project site for these two buildings. However, the lower flagging with a maximum height of 28 feet is the maximum height that corresponds to the proposed project's site plan as depicted in the visual simulations of the proposed project.

Thresholds of Significance

In accordance with the California Environmental Quality Act (CEQA) Guidelines, a project impact would be considered significant if the project 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 view from 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 that would adversely affect day or nighttime views in the area.

Impacts and Mitigation

Scenic Vista

For the purposes of CEQA, a scenic vista is an area of particular scenic quality and beauty that offers landscape-scale views of distant scenic resources, such as mountain ranges, the Pacific Ocean, or similar features. A scenic vista is an important visual element that contributes to the vividness of a particular area or region. In general, a project would impact a scenic vista if the project would obstruct and/or otherwise degrade existing views as perceived from a vista. The project site is visible from Highway 1, Valley Way, and private properties in the project site's vicinity.

Development of the proposed project would result in the construction of urban features, including condominium buildings of varying height, and their associated uses that would require the removal of existing trees and other vegetation. Removal of trees from the project site for construction of the project would affect the forested character of the project site both from within and adjacent to the project site; however, site design, including proposed landscaping which would include replanting of mature growth trees, would minimize the impact of the implementation upon scenic vistas. This is shown in the visual simulations of the proposed development, which are included as **Figures 4.1-3A through 4.1-3L**, displaying the project site with and without proposed landscaping. *Therefore, removal of 213 existing*

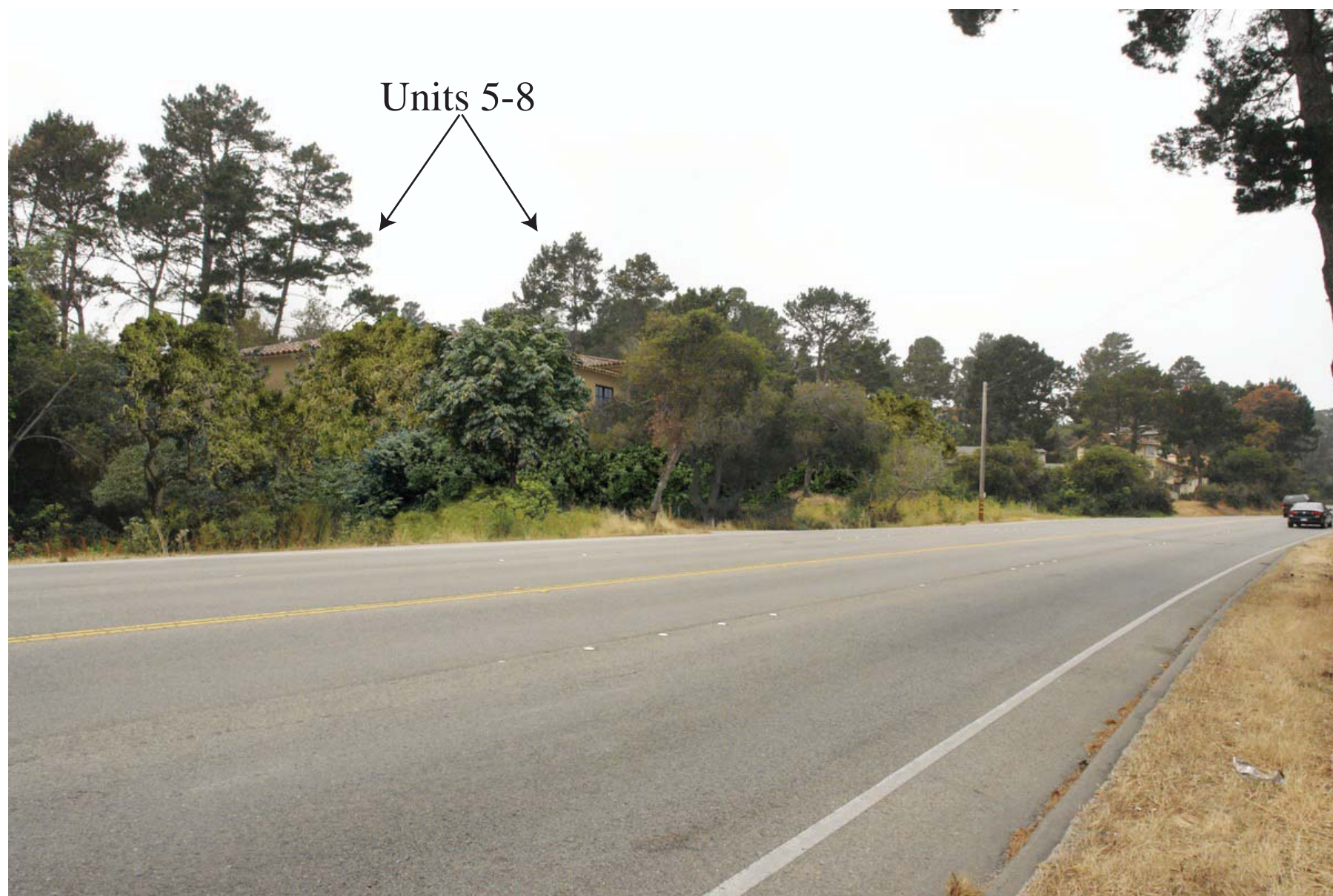
trees, as proposed by the project, would constitute a potentially significant impact to a portion of the scenic vista along Highway 1; however, the impact is reduced to a less-than-significant level with consideration that a total of 148 replacement trees would be planted on the project site as a component of the project's Replanting and Landscaping Plan (see **Figures 4.1-4A through 4.1-4D, Conceptual Landscape Plan**). In addition, the proposed planting of the Highway 1 corridor as planned and incorporation of mitigation measures would ensure that development of the proposed project retains the existing forested character to the maximum extent feasible. Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this DEIR.

Impact **Development of the proposed project would result in the removal of existing trees and alteration of the natural landscaping of the project site, resulting in a potential impact to a scenic vista. This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.**

Mitigation

- 4.1-1 In order to minimize potential aesthetic-related impacts due to the removal of existing trees and vegetation and the creation of light sources, the project proponent shall submit a detailed Replanting and Landscaping Plan that provides adequate screening along the borders of the project site prior to the issuance of any grading and/or building permit. The project site's historic landscaping shall be retained to the maximum extent feasible. The Replanting and Landscaping Plan shall be in accordance with mitigation measures 4.4-1 and 4.4-2 as defined in **Section 4.4 Biological Resources** of this DEIR. All replanting and landscaping shall be in conformance with the design and implementation measures contained in the Carmel Area Land Use Plan and the Monterey County Coastal Implementation Plan. The Replanting and Landscaping plan shall include specific planting recommendations (species, size, placement, etc.), prescribe care and maintenance for all plantings, require periodic monitoring of the site for a minimum of three years, and require annual reporting during the three year period on replanting success. The landscape architect shall submit bi-annual monitoring reports to the Monterey County Planning Department after each six months detailing the condition of the project site's landscaping. Adaptive management techniques and/or an extension of the monitoring period shall be required in the event that replanting is not successful during the initial (five year) monitoring period. If during the course of monitoring it is determined that re-planting has not been successful, the project applicant shall be required to provide replacement planting as deemed necessary by the Monterey County Planning Department. The Replanting and Landscaping Plan shall be subject to the approval of the Monterey County Planning Department.

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Site viewed from southeast on opposite side of Highway 1.

Source: The Warner Group, 2008

Visual Assessment View One With Proposed Landscaping

Figure
4.1-3A

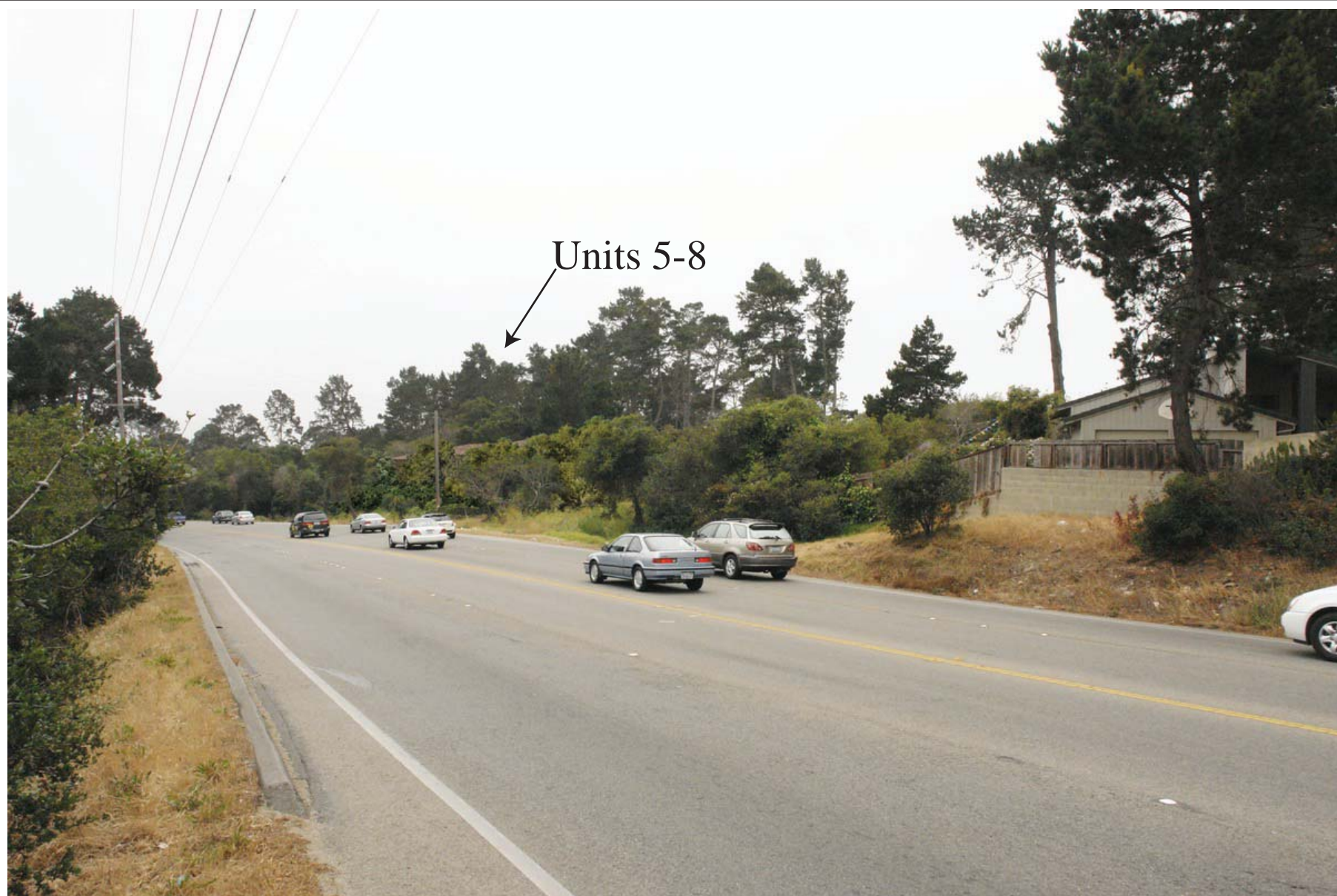


Site viewed from southeast on opposite side of Highway 1.

Source: The Warner Group, 2008

Visual Assessment View One Without Proposed Landscaping

Figure
4.1-3B



Site viewed from northeast on opposite side of Highway 1.

Source: The Warner Group, 2008

Visual Assessment View Two With Proposed Landscaping

Figure
4.1-3C



Site viewed from northeast on opposite side of Highway 1.

Source: The Warner Group, 2008

Visual Assessment View Two Without Proposed Landscaping

Figure
4.1-3D



Site viewed from west at proposed Valley Way entrance.

Source: The WarnerGroup, 2008

Visual Assessment View Three With Proposed Landscaping

Figure
4.1-3E



Site viewed from west at proposed Valley Way entrance.

Source: The Warner Group, 2008

Visual Assessment View Three Without Proposed Landscaping

Figure
4.1-3F



Site viewed from southwest from Valley Way.

Source: The Warner Group, 2008

Visual Assessment View Four With Proposed Landscaping

Figure
4.1-3G



Site viewed from the southwest along Valley Way

Source: The Warner Group, 2008

Visual Assessment View Four Without Proposed Landscaping

Figure
4.1-3H



Site viewed from southwest from Valley Way.

Source: The Warner Group, 2008

Visual Assessment View Five With Proposed Landscaping

Figure
4.1-3I



Site viewed from southwest from Valley Way.

Source: The Warner Group, 2008

Visual Assessment View Five Without Proposed Landscaping

Figure
4.1-3J



Site viewed from existing Highway 1 entrance.

Source: The Warner Group, 2008

Visual Assessment View Six With Proposed Landscaping

Figure
4.1-3K



Site viewed from existing Highway 1 entrance.

Source: The Warner Group, 2008

Visual Assessment View Six Without Proposed Landscaping

Figure
4.1-3L



Source: Earthform Design, 2008



Conceptual Landscaping Plan

Figure
4.1-4A



GRAPHIC SCALE

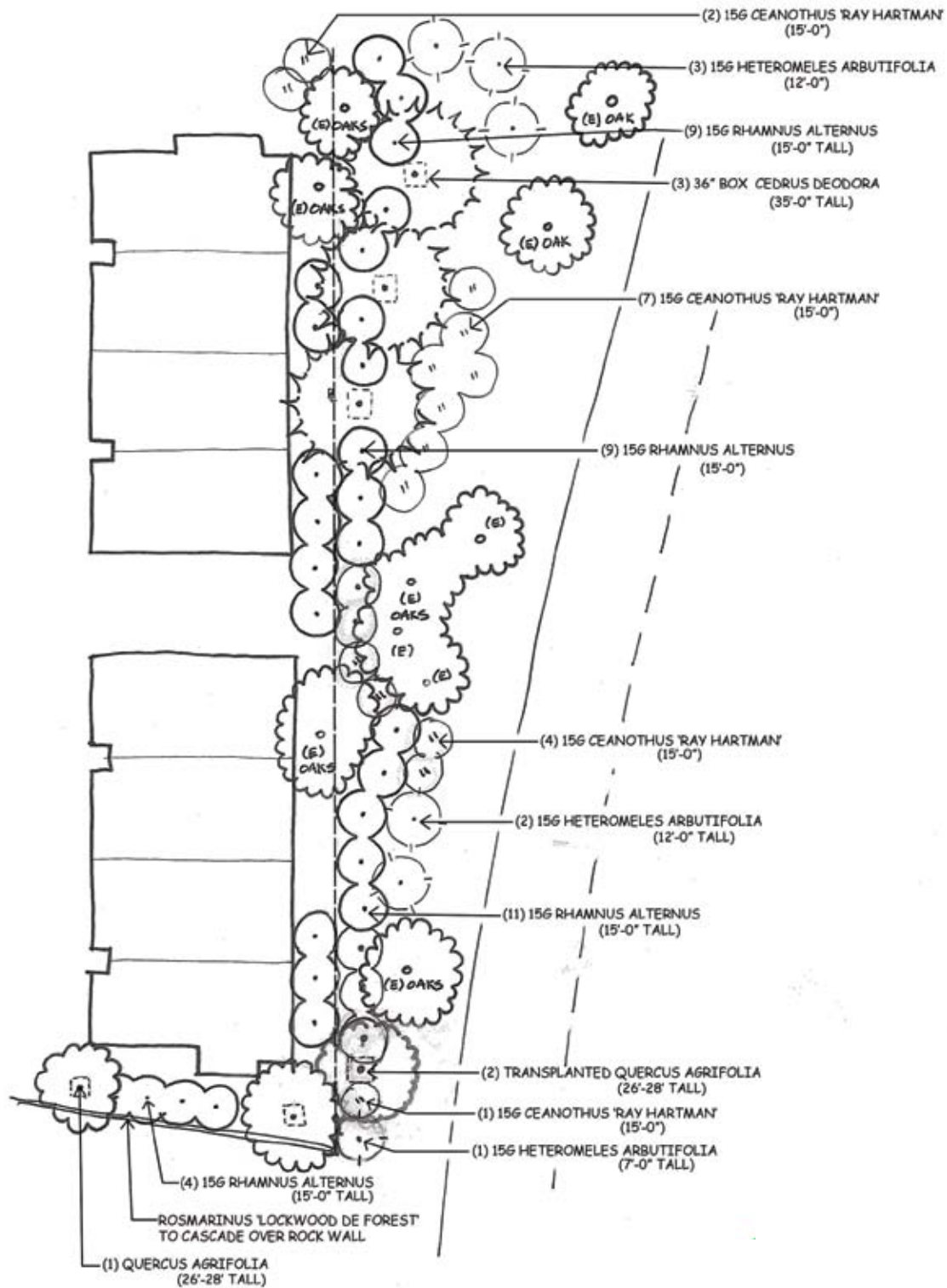
(IN FEET)
1 inch = 20 ft.

Source: Earthform Design, 2008



Proposed Landscaping Screening

Figure
4.1-4B

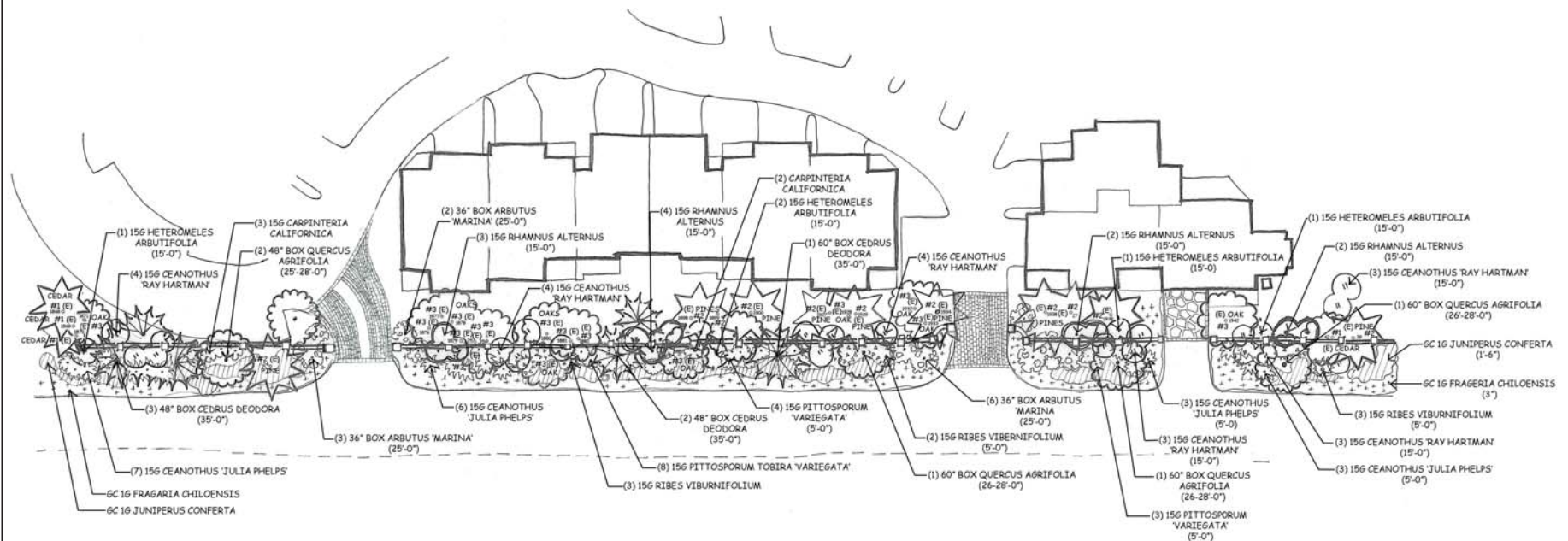


Source: Earthform, 2008



Highway 1 Landscaping

Figure
4.1-4C



PLANT SCHEDULE

SYM	QNTY	SIZE	BOTANICAL NAME	COMMON NAME	QNTY	SIZE	BOTANICAL NAME	COMMON NAME
<u>EXISTING TREES:</u>								
#1	4	(E)	Cedrus atlantica	Atlas Cedar	5	15g	Carpenteria californica	Bush Anemone
#2	10	(E)	Pinus radiata	Monterey Pine	19	15g	Ceanothus 'Julia Phelps'	Julia Phelps Ceanothus
#3	15	(E)	Quercus agrifolia	Coast Live Oak	21	15g	Ceanothus 'Ray Hartman'	Ray Hartman Ceanothus
<u>NEW TREES:</u>								
4	60"	Box	Cedrus deodora	Deodar Cedar	5	15g	Heteromeles arbutifolia	Tayon
5	48"	Box	Cedrus deodora	Deodar Cedar	15	15g	Pittosporum tobira 'Variegata'	Variegated Tabira
11	36"	Box	Arbutus 'Marina'	NA	11	15g	Rhamnus alternus	Italian Buckhorn
3	60"		Quercus agrifolia	Coast Live Oak	8	15g	Ribes viburnifolium	Evergreen Currant
2	48"		Quercus agrifolia	Coast Live Oak	<u>GROUNDCOVERS:</u>			
					6C	1g	Fragaria chiloensis	Beach Strawberry
					6C	1g	Juniperus conferta	Shore Juniper

0 20 40 60 80 100 Feet

Source: Earthform Design, 2008



Valley Way Landscaping

Figure
4.1-4D

- 4.1-2 In order to minimize tree removal and associated visual impacts, final design-level improvement plans shall retain existing trees to the greatest extent possible. Final design-level plans shall be prepared in consultation with a registered arborist/forester to minimize tree removal and ensure the health of remaining trees. In addition, final design plans for the proposed development shall utilize natural landforms and vegetation for screening structures, access roads, building foundations, cut and fill slopes, and exterior lighting. Roads, parking, and utilities shall be designed to minimize visual impacts. In order to further guarantee minimized alteration of the existing character of the project site, the applicant shall submit evidence (site plans, building elevations, landscape plans, etc.) demonstrating that landscaped buffers, setbacks, and screening will be provided along public roadways that border the project area.

Prior to issuance of any grading and/or building permits, final plans shall be subject to the review and approval of the Monterey County Planning Department. If the removal of existing trees is required, the applicant shall submit evidence demonstrating that there are no feasible design alternatives to avoid tree removal. In the event that tree removal is required, the project applicant/project arborist shall prepare a tree removal and replacement plan for each phase of construction, subject to the review and approval of the Monterey County Planning Department. Any tree removal and/or tree replanting shall be in accordance with mitigation measures 4.4-1 and 4.4-2 as defined in **Section 4.4 Biological Resources** of this DEIR. The tree removal and replacement plan shall identify specific grading limits and building footprint siting that minimizes tree removal, as well as appropriate tree replacement ratios (minimum of 1:1 for trees > 12 inches DBH; 3:1 replacement for trees 6-11 inches DBH) and replanting locations. Buildings, roadway, parking areas, and other proposed structures shall be adjusted to the greatest extent possible to reduce tree removal. All ground disturbing activities shall be monitored by the project arborist/forester to ensure impacts to retained trees are minimized.

Scenic Resources

The project site is located adjacent to Highway 1, which is a designated State Scenic Highway and an All American Road. Areas visible from the Highway 1 corridor are within the public viewshed. The scenic quality of Highway 1 and its preservation are identified in numerous planning documents, including the Carmel Area Land Use Plan and the Monterey County Coastal Implementation Plan. For instance, according to the Carmel Area Land Use Plan, preservation of the area's visual resources, including the viewshed from the Highway 1 corridor, is a priority. The Scenic Highway designation itself does not restrict improvements on scenic highways or preclude development, but the various policies identify the importance of the scenic quality of the Highway 1 corridor and call for quality development that does not degrade the scenic value of the area. Scenic resources visible from Highway 1 include existing mature forested canopy, an important component of the visual quality of the corridor, the residential neighborhoods of the unincorporated coastal zone to the west, including the project site, and the City of Carmel-by-the-Sea. As discussed below, development of the proposed project has the potential to impact scenic resources in the form of mature pine and oak trees within view of Highway 1 looking west. As the proposed project site is located west of Highway 1, project development would not affect views of scenic resources as viewed from Highway 1 looking east. Therefore, the following section, only addresses project-related impacts to scenic resources west of Highway 1.

The project site, which is currently occupied by the existing hospital structure and two other buildings, is characterized by existing mature Monterey pines, coast live oaks, and other native and non-native tree species. As perceived from Highway 1 looking west, the project site is partially obstructed by existing vegetation located along the project boundaries. Development of the proposed project would result in the build-out of the proposed site into a residential condominium complex. Existing vegetation would be removed in order to accommodate the project. The removal of existing on-site vegetation, specifically

mature pine and oak trees, could constitute a significant impact to a scenic resource. To the extent feasible, vegetation would be retained along the project boundaries through design and implementation measures identified in the project's Forest Management Plan. The introduction of new residential features onto the site and the removal of existing vegetation would, however, transform the existing visual character of the site and potentially degrade views from the Highway 1 corridor looking west. Specifically, the proposed project would include construction of two buildings along Highway 1 that would both be 28 feet in height, 100 feet in length, and 50 feet in width. Although the height of the two buildings would not be out of character in when compared to other single family residences in the project's vicinity or to the apartment complex located directly south of the project site, the overall mass of the two buildings themselves would be inconsistent with surrounding buildings. The two structures would be visible from both a northern and southern directional heading along Highway 1, which is considered to be a scenic resource; this is therefore considered to be a significant impact.

In order to minimize potential visual impacts from Highway 1 and Valley Way, the project's design identifies specific design measures to be incorporated into final design-level plans to provide screening and landscaping from Highway 1 and Valley Way. As shown in the project's Visual Simulations (**Figures 4.1-3A – 4.1-3L**), the proposed landscaping and site design would assist in allowing the project to conform to the built-environment surrounding the project site that is visible from the Highway 1 corridor. Further, the project applicant has indicated that the site design for the two buildings that would have housed Units 1-8 adjoining Highway 1 were originally designed to a height of 30 feet; however, the height of these two buildings was later designed for a maximum height of 28 feet. Requiring these two buildings to be constructed with a maximum elevation of 28 feet would reduce the overall impact of the proposed project upon a scenic resource. Additionally, the project's tentative map includes a 10' setback from the property line along the project site's boundary with Highway 1. Any development, including project signage, parking, or construction-related activities, will not be permitted within the 10' setback from the property line adjoining Highway 1. Existing mature trees within the 10' setback will be retained to the extent possible consistent with mitigation measures 4.1-1 and 4.1-2. Any landscaping activities adjacent to the project site's boundary with Highway 1 within the California Department of Transportation's right-of-way will require encroachment permit approval from the California Department of Transportation (Caltrans). The Caltrans encroachment permit may include additional conditions for approval.

Implementation of the measures identified in the project plans, in addition to those in the Carmel Area Land Use Plan and the additional mitigation proposed by the applicant, would reduce project-related impacts as much as feasible however, would not reduce impacts to a less-than-significant level. Therefore a significant and unavoidable impact upon a scenic resource would occur. Although reduction to a less-than-significant level would not occur, implementation of the mitigation measures 4.1-1 and 4.1-2 in addition to the following mitigation measures are necessary in order to minimize the project's impacts upon scenic resources to the fullest extent possible. The implementation of these mitigation measures would not result in any new impacts beyond those identified in this DEIR.

Impact **The project would result in the removal of existing mature vegetation adjacent to Highway 1 to accommodate buildout of the project site into a residential condominium complex. Existing vegetation, particularly mature pine and oak trees, located west of Highway 1 is considered a scenic resource that is an important component of the visual integrity of the Highway 1 corridor. Removal of vegetation and the construction of two buildings would impact views from Highway 1 looking west towards the project site. To the extent that buildout of the proposed project would be inconsistent with its surrounding area bordering a scenic highway, this represents a significant and unavoidable impact.**

Mitigation

- 4.1-3 In order to assure that impacts to a scenic resource, the Highway 1 corridor, are minimized, the two buildings housing Units 1-8 located adjacent to Highway 1 on the proposed project site plan shall be constructed with a maximum elevation of 28 feet. This maximum elevation shall be uniform for both of the buildings and shall be recorded on the project's final map, subject to approval by the County of Monterey.
- 4.1-4 In order to assure that impacts to scenic resources as viewed from the Highway 1 corridor are minimized, the project applicant/developer shall ensure that at no time shall any development, including project signage, parking, or construction-related activities, be permitted within the 10' property-line setback. All existing mature trees within the 10' setback shall be retained to the extent possible consistent with mitigation measures 4.1-1 and 4.1-2. This measure shall be recorded on the project's final map, subject to approval by the County of Monterey.

Visual Characteristics

The project site is currently minimally used from an operational perspective and contains three existing buildings and one shed in varying states of disrepair. However, almost the entire project site is considered disturbed and/or paved with some areas supporting a mix of pines, oaks, and other native and non-native tree species and vegetation. Development of the project would result in the removal of one building and the shed and mature vegetation in order to accommodate the proposed residential condominiums. Visual simulations of the proposed development are presented in **Figures 4.1-3A through 4.1-3IL**. Additionally, a Conceptual Landscape Plan depicts the proposed landscaping (see **Figures 4.1-4A through 4.1-4D, Conceptual Landscape Plan**).

The existing visual character of the project site would be affected through the introduction of new residential features (i.e., project infrastructure, buildings of varying scale and height, parking, pavement) on a predominantly abandoned 3.68-acre site; however, proposed development of the project would improve the visual character of the site by rehabilitating existing buildings and improving the site's landscaping. Although no ridgeline development would occur with construction of the proposed project, development would occur on areas within the property on slopes exceeding 30% slope. Implementation of the project would partially but not substantially alter the existing visual character of the site as perceived from adjacent land uses as the proposed development would maintain some of the existing visual characteristics on the project site and the landscaping proposed would reduce the site visibility, as demonstrated in **Figures 4.1-3A through 4.1-3L**. The visual character of the project site would partially be retained through the adaptive reuse of two original structures on the site and by reflecting the original architectural style of these structures in the buildings to be constructed. Development of the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings although the proposed buildings would be visible from adjacent land uses. However, the majority of the buildings and interior of the project site would be screened as a result of building design and proposed landscaping and would not create a prominent visual landmark that would be observable from both adjacent and distant land uses.

In summary, the project would alter the existing visual character of the site by removing/planting vegetation and adding buildings, pavement, parking areas, and/or lighting. However, the proposed development would preserve historical structures and remove the existing deteriorated buildings on part of the project site. The siting and appearance of the proposed development would retain much the existing visual character of the project site from adjacent and surrounding land uses, however, the scale of the existing development on the site would be altered. In order to reduce the perceived scale of

development, the project has been designed to reflect the architectural style (Spanish/Mediterranean) of the existing hospital and garage/shop buildings, conform to existing terrain, and incorporate the site's historic landscaping to the maximum extent feasible in order to visually buffer the new development. In addition, landscaping would be required throughout the project site and along the project perimeter to minimize visual impacts consistent with the mitigation measures identified above. *Therefore, adherence to applicable polices and abidance of mitigation measures would reduce project-related impacts to a less-than-significant level.* Implementation of mitigation measures 4.1-1, 4.1-2, and the following mitigation measures would not result in any new environmental impacts beyond those identified in this DEIR.

Impact: **Development of the proposed project would result in the rehabilitation and adaptive reuse of the existing hospital structure and garage/shop building and construction of 10 additional detached buildings on the project site, to accommodate a total of 46 condominium units. The proposed project would include common space for underground and surface parking, a recreation room, gym, and storage facilities. The project would thus alter the existing visual character of the site through the introduction of new urban features. This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.**

Mitigation







- 4.1-5 In order to minimize the contrast between built elements and the surrounding environment, all buildings shall be designed with colors and materials that effectively reflect the architectural style of the main hospital building, blending the structures with the on-site landscape. Building applications for new structures shall include color and material sample photo sheets and shall be approved by the Monterey County Planning Department prior to the issuance of building permits. Reflective building material shall not be allowed, unless otherwise approved by the County.
- 4.1-6 Prior to the issuance of any building permit for development within the project site area, the project applicant/developer shall submit detailed plans, including elevations, site plans, and/or other documentation detailing compliance with applicable development standards, subject to the review and approval of the Monterey County Planning Department.

Light and Glare

The project site currently consists of 3.68 acres of an essentially abandoned former convalescent hospital site. Existing uses within the project vicinity provide various sources of light. The project site's vicinity is comprised of a neighborhood that is densely compacted with housing. Nearby Highway 1, traffic and roadway lighting provide a varying amount of glare and light, particularly at night. Residential housing located to the north, south, and west of the project site also contribute varying sources of lighting. During full operation of the convalescent hospital, the designated use for the project site, there would be various sources of light located on the site, including but not limited to, exterior landscaping lighting and walkway lighting. However, the project site currently is minimally used and has limited artificial lighting only in the direct vicinity of the former nurses' quarters building. Therefore, development of the project with new residential uses would represent a potentially significant impact.

The project would provide a new source of light and glare on a site that has been primarily abandoned within a residential neighborhood (see **Figure 4.1-5 Project Site Lighting Plan**).

Lighting Legend:

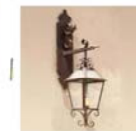
- (17)  Light Post - Sternberg - Medittera BB 2143BB on Stanton Pole - Compact Fluorescent 32W
- (69)  Wall Sconce - Illuminaries "El Socarrar Noche" Burning Night Model #01998 - 35W
- (60)  Miniature Beacon Path Light - BK Teka - MBP - 2310 - 35W
- (11)  Directional Light House - BK Teka - 7215 - 35W
- (9)  Directional Flood Light - BK Teka - DFL-51165 - 35W
- (10)  Step Light - BK - Coredrill Brickstar - GU10



Medittera BB
2143bb



Illuminaries Fine Wrought Lighting
'El Socarrar Noche' Burning Night
40"H x 12"W x 15"D
Model # 0199B



Miniature Beacon Path Light
BK Teka - MBP 2310 - 35W



Directional Light House
BK Teka - 7215 - 35W



Directional Flood Light
DFL-5116
DFL-5165



Core Drill Brick Star
(GU10)

Source: The Warner Group, 2008



Lighting Plan

Figure
4.1-5

Additionally, development of the project site would contribute to existing sources of light and glare within the project vicinity. The proposed development would include lighting for security and site recognition. These sources would include outdoor lighting of parking areas, the inner driveway, and walkways. Lighting on the project site would be in conformance with proposed tree removal and replanting on the project site, ensuring a balance between lighting and landscaping. The potential effects from night lighting would be minimized by conformance with the County's policies and goals regarding outdoor lighting, the proposed use of mature tree re-planting on the project site, and appropriate mitigation measures. These impacts would therefore be reduced to a less-than-significant level.

Overall, due to the surrounding housing density in the project site's vicinity and due to design measures that would essentially internalize nighttime lighting on the site, the proposed project would not significantly elevate the amount of artificial light on the site. Artificial lighting within the project site would be down-lit and would not impact nighttime views by altering the natural landscape and would not significantly increase lighting in the nighttime sky that would reduce the visibility of astronomical features. Further, the additional lighting within the project site would be shielded by the building design and location on the project site and would not result in spillover light that would impact surrounding land uses. Additionally, daytime glare would not be significant as proposed mature landscaping would shield development and the building design of the proposed project would internalize the majority of the project site. *Conformance to measures designed to lessen the extent of impacts associated with new sources of light or glare would minimize project-induced impacts to less-than-significant impacts.* Implementation of the following mitigations would not result in any new environmental impacts beyond those identified in this DEIR. The following mitigations would be in concurrence with mitigation measure 4.4-7 within **Section 4.4 Biological Resources**.

Impact **The project would create a new source of light or glare that would adversely affect day or nighttime views in the area. This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.**

Mitigation

4.1-7 In order to minimize glare and lighting, the project proponent shall submit a detailed lighting plan subject to the review and approval of the Monterey County Planning Department prior to issuance of any grading and/or building permit. The lighting plan shall implement the following standards:

- **Maximum Height:** Outdoor street/road/parking light fixtures shall not exceed 12 feet in height or the height of the nearest structure, whichever is less.
- **Energy-Efficiency:** Outdoor lighting shall utilize energy-efficient (high pressure sodium, low pressure sodium, hard-wired compact fluorescent, or lighting technology that is of equal or greater efficiency) fixtures and lamps.
- **Exterior building lights** shall be installed with timers and/or sensors.
- **Positioning:** Fixtures shall be properly directed, recessed, and/or shielded (e.g., downward and away from adjoining properties) to reduce light bleed and glare onto adjacent properties or public rights-of-way, by:
 1. Ensuring that the light source (e.g., bulb, etc.) is not visible from off the site; and
 2. Confining glare and reflections within the boundaries of the subject site to the maximum extent feasible.
- **Maximum Illumination:** No lighting on private property shall produce an illumination level greater than one footcandle on any property within a residential zone except on the site of the light source. No flood lighting shall be allowed on the project site.

- No glare or lighting shall be directed towards Highway 1.
- No permanently installed lighting shall blink, flash, or be of unusually high intensity or brightness.
- Landscaping shall be designed to the maximum extent feasible in order to screen project site lighting.

Cumulative Impacts

The geographic scope for this analysis is the local vicinity of the proposed project site and the area of the Highway 1 corridor adjacent to the project site within the Carmel Land Use Planning Area as designated by the Monterey County General Plan. Future cumulative development would result in visual impacts as undeveloped visually sensitive lands are converted to urban uses. The cumulative visual impacts would be most notable in areas where new development occurs outside existing urban areas. Infill development occurring within or adjacent to existing urbanized areas would result in less significant visual impacts, although it could adversely affect views from adjacent parcels by increasing density, creating glare, and decreasing open space.

Localized Area: Implementation of the proposed project would introduce new development within the neighborhood area of the project site. The project site is surrounded by single-family housing and a multi-family apartment building on its northern, southern, and western borders, while its eastern border abuts Highway 1. In consideration with the Villas de Carmelo Project, there are no other planned development projects in the project site's immediate vicinity that would result in the intensification of development in the area, thereby substantially changing the existing visual quality or character of the region. *Therefore, the proposed project would not contribute cumulative change in the visual quality to the localized Carmel Land Use Planning Area.*

Highway 1 Corridor – County wide: The Highway 1 corridor would experience cumulative visual changes from the project and County-wide development and concurrent development in the adjoining cities. Further development of residential projects, as well as commercial and other projects within the foreground and middle-ground viewshed of the highway would create the most noticeable visual change. This could potentially result in an overall change in scenic character for this important stretch of highway at the gateway to the Monterey Peninsula. These changes would also likely be of concern to local residents who value the natural landscape image of the region.

Regulations governing design, density, and preservation of open space are the responsibility of each jurisdiction. The planning policies for the Carmel Area Land Use Planning Area include design, density, and open space guidelines that reduce the visual impacts of development to a less-than-significant level. The localized Highway 1 corridor in proximity to the project site is primarily developed with very limited opportunity for substantial new development. *Considering the level of development potential in the Highway 1 corridor area within the Carmel Land Use Planning Area, the potential mitigating impacts of the planning documents for the Carmel Land Use Planning Area and mitigation provided within this Draft EIR, the proposed project would have a less-than-significant cumulative impact on aesthetics resources within the Highway 1 corridor.*

4.2 AGRICULTURAL RESOURCES

Introduction

Agricultural resources are afforded protection under various federal and state acts (such as the Williamson Act), programs, and local governance (General Plans, specific, and other types of plans, zoning ordinance, etc.). Some of the agencies involved with stewardship of agricultural resources include the U.S. Department of Agriculture (USDA), the Natural Resources Conservation Service (NRCS), and the California Department of Conservation, Division of Land Resource Protection. In California, agricultural land is also given consideration under CEQA. According to Public Resources Code §21060.1, “agricultural land” means prime farmland, farmland of statewide importance, or unique farmland, as defined by the USDA land inventory and monitoring criteria, as modified for California.

The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data that are used for analyzing impacts on California’s agricultural resources. The FMMP was established in 1982 in response to a critical need for assessing the location, quality, and quantity of agricultural lands and the conversion of these lands over time. The FMMP is a non-regulatory program and provides a consistent and impartial analysis of agricultural land use and land use changes throughout California. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California’s agricultural land resources. Under the FMMP, agricultural land is rated according to irrigation status and soil quality; the best quality land is called Prime Farmland. The FMMP produces Important Farmland Maps, which are a hybrid of resource quality (soils) and land use information.¹

Setting

The project site is located in a residential neighborhood on a 3.68-acre site in the unincorporated Coastal Zone of Monterey County bordered by the city of Carmel-by-the-Sea. The project site is bounded to the southwest by Valley Way, a County-maintained road, to the east by Highway 1, and southeast by a private drive known as Hatton Lane leading to a four-building apartment complex that contains 14 units. Single-family homes are located on the northern and northwestern borders of the property.

According to the most recent Monterey County Important Farmlands Map, the project site contains lands classified as “Urban and Built-up Land” (Department of Conservation 2006). The project site has historically been used as grounds for hospital facilities. As a former hospital located within a residential neighborhood, there are no existing agricultural uses or operations within the project boundaries or in the vicinity.

According to the California Department of Conservation Division of Land Resource Protection, “Urban and Built-up Land” land is defined as land that is not included in any of the other mapping categories (i.e., Prime Farmland, Farmland of Statewide Importance). “Urban and Built-up Land” land typically is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10 acre parcel. This land is typically used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. “Urban and Built-up Land” land does not include land previously designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance.

¹ The Important Farmland Maps can be accessed at the following website:
<http://www.consrv.ca.gov/DLRP/fmmp/index.htm>

Regulatory Environment

Monterey County General Plan. The Monterey County General Plan contains policies designated for the conservation of agricultural resources in Monterey County. However, due to the irrelevant nature of such policies to the proposed project, these policies are not listed nor addressed in this DEIR.

Carmel Area Land Use Plan / Local Coastal Plan. The Carmel Area Land Use Plan contains policies designated for the conservation of agricultural resources in the Carmel Planning Area. However, due to the irrelevant nature of such policies to the proposed project, these policies are not listed nor addressed in this DEIR.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Relevant Project Characteristics

The project site does not contain any agricultural resources.

Thresholds of Significance

A project that would convert prime agricultural land to non-agricultural use or impair the agricultural productivity could have a significant effect on the environment.

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.

Impacts and Mitigation

There are no significant agricultural resources present on the project site, which consists of “Urban and Built-up Land.” Urban and Built-up Land is not afforded protection under CEQA, as it typically consists of land that is not suitable for agricultural uses. The project site has historically been used for hospital services and is fully developed with buildings, paved areas, and landscaping. As the project site is located within a residential area, there are no existing agricultural uses or operations in the immediate project vicinity. The proposed project would not convert prime farmland, conflict with an existing agricultural use, or result in the conversion of existing farmland. Additionally, no Williamson Act contracted lands would be impacted due to the proposed project. ***The project would have no impact on agricultural resources.***

Cumulative Impacts

The geographic scope for this analysis is the Carmel Land Use Planning Area as designated by the Monterey County General Plan. Future development of the project site as proposed by the proposed project would not result in significant impacts to agricultural lands and would not contribute to significant cumulative impacts to agricultural resources in the surrounding area. Moreover, the project site does not contain any soils classified for agricultural use according to the FMMP. ***The project would not have a cumulative impact on agricultural resources.***

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4.3 AIR QUALITY

Introduction

This section is based on an air quality analysis prepared for the project by Denise Duffy & Associates. The following sources of information were used in preparing this analysis: 1) Monterey Bay Unified Air Pollution Control District (MBUAPCD), CEQA Air Quality Guidelines (July 2008), 2) MBUAPCD, 2008 Air Quality Management Plan (August 2008), and 3) MBUAPCD 2007 Federal Maintenance Plan (March 21, 2007). The air quality technical data and air quality consistency determination are provided in **Appendix C**.

Setting

The project is located within the North Central Coast Air Basin (NCCAB), one of 14 statewide basins designated by the California Air Resources Board (CARB). This basin includes Monterey, Santa Cruz, and San Benito Counties. The Monterey Bay Unified Air Pollution Control District (MBUAPCD) is responsible for local control and monitoring of criteria air pollutants.

The project site is bounded by Valley Way to the southwest, Highway 1 to the east, and a private drive known as Hatton Lane to the southeast. Single-family homes are located on the northern and northwestern borders of the property, and a four-building apartment complex is located to the southeast. The proposed project is located in the NCCAB, which includes Monterey, Santa Cruz, and San Benito counties. Although the NCCAB is in attainment of all federal air quality standards, it is designated as nonattainment with respect to the more stringent state PM₁₀ standard and the state eight-hour ozone standard. Plans to attain these standards already accommodate the future growth projections available at the time these plans were prepared. Any development project capable of generating air pollutant emissions exceeding regionally-established criteria is considered significant for purposes of CEQA analysis, whether or not such emissions have been accounted for in regional air planning. Furthermore, any project that would directly cause or substantially contribute to a localized violation of an air quality standard would generate substantial air pollution impacts. The same is true for a project that generates a substantial increase in health risks from toxic air contaminants, or introduces future occupants to a site exposed to substantial health risks associated with such contaminants.

Climate and Topography

Climatological conditions, an area's topography, and the quantity and type of pollutants released commonly determine ambient air quality. The proposed project is located in the NCCAB, which covers an area of 5,159 square miles along the central California coast. The northwest sector of the NCCAB is dominated by the Santa Cruz Mountains. The Diablo Range marks the northeastern boundary. The Santa Clara Valley extends into the northeastern tip of the basin. Further south, the Santa Clara Valley becomes the San Benito Valley, which runs northwest-southeast with the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at the northwest end to south of King City. The coastal Santa Lucia Range defines the western side of the valley.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Communities with cold climates may burn wood or other fuels for residential heating, whereas areas with hot climates may have higher emissions or some pollutants from automobiles. Topography also plays a part, as valleys often trap emissions by limiting lateral dispersal.

A semi-permanent high pressure cell in the eastern Pacific, the Pacific High, is the basic controlling factor in the climate of the NCCAB. 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 Pacific High, forming a stable temperature inversion of hot air over a cool coastal layer of air. The on-shore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air, aloft, acts as a lid to inhibit vertical air movement. The generally northwest-southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito Valleys creates a weak low pressure that intensifies the on-shore air flow during the afternoon and evening. In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The air flow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific High pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop to transport pollutants from either the San Francisco Bay Area or the Central Valley into the NCCAB.

During the winter, the Pacific High migrates southward and has less influence on the NCCAB. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. 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.

Regulatory Environment

Federal

The Federal Clean Air Act (CAA) authorized the establishment of federal air quality standards and set deadlines for their attainment. The CAA identifies specific emission reduction goals, requires both a demonstration of reasonable further progress and attainment, and incorporates more stringent sanctions for failure to meet interim milestones. The U.S. Environmental Protection Agency (EPA) is the federal agency charged with administering CAA and other air quality-related legislation. The NCCAB is identified as an attainment area for all federal ambient air quality standards. MBUAPCD's most recent Federal Implementation Plan to maintain the federal 1-hour ozone standard is the 2007 Maintenance Plan for the Monterey Bay Region

The CAA of 1970, as amended, establishes air quality standards for several pollutants. The National Ambient Air Quality Standards (NAAQS) have been established for seven major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur oxides, and lead. **Table 4.3-1** identifies the characteristics, health effects, and typical sources of these major air pollutants. The federal standards are presented in **Table 4.3-2**. These standards are designed to protect public health and welfare. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soils, water, visibility, materials, vegetation, and other aspects of general welfare.

In addition to major pollutants, the U.S. regulates Hazardous Air Pollutants (HAPs). One means by which the U.S. EPA addresses HAP exposure is through the National Emission Standards for Hazardous Air Pollutants (NESHAPS)¹ which include source-specific regulations that limit allowable emissions of such pollutants.

¹ The NESHAPS are promulgated under Title 40 of the Code of Federal Regulations (CFR), Parts 61 & 63.

Table 4.3-1
Overview of Key Pollutants in the Project Area

	Characteristics	Health Effects	Major Sources
Ozone (O ₃)	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen). Often called photochemical smog. Highest concentrations of ozone are found downwind of urban areas.	<ul style="list-style-type: none"> Respiratory function impairment. 	Sources of ozone precursors (nitrogen oxides and reactive hydrocarbons) are combustion sources, such as factories and automobiles and evaporation of solvents and fuels.
Carbon Monoxide (CO)	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels. CO concentrations are highest in the winter, when radiation inversions over large areas can limit vertical dispersion.	<ul style="list-style-type: none"> Impairment of oxygen transport in the bloodstream. Aggravation of cardiovascular disease. Fatigue, headache, confusion, dizziness. Can be fatal in the case of very high concentrations. 	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide (NO ₂)	Nitrogen dioxide is a reddish-brown gas that discolors the air, which formed during combustion. Nitrogen dioxide levels in California have decreased in recent years due to improved automobile emissions. Ambient standards are typically not exceeded in NCCAB.	<ul style="list-style-type: none"> Increased risk of acute and chronic respiratory disease. 	Automobile and diesel truck exhaust, industrial processes, and fossil-fuel powered plants. Also formed via atmospheric reactions.
Sulfur Dioxide (SO ₂)	Sulfur dioxide is a colorless gas with a pungent, irritating odor. Ambient standards for sulfur dioxide are rarely exceeded in the NCCAB.	<ul style="list-style-type: none"> Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory disease. 	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
PM ₁₀ & PM _{2.5}	Solid and liquid particles of dust, soot, aerosols and other matter that are small enough to remain suspended in the air for a long period of time. PM ₁₀ is particulate matter with diameter less than 10 microns. PM _{2.5} is particulate matter with diameter less than 2.5 microns. PM _{2.5} has been found to be more harmful to humans.	<ul style="list-style-type: none"> Aggravation of chronic disease and heart/lung disease symptoms. 	Combustion, automobiles, field burning, factories, and unpaved roads. Also, formed secondarily by photochemical processes of combustion emissions. PM _{2.5} is primarily a secondary pollutant.

Table 4.3-2 Federal and State Ambient Air Quality Standards				
Pollutant	Averaging Time	California Standards	National Standards ^(a)	
			Primary ^(b, c)	Secondary ^(b, d)
Ozone	8-hour	0.07 ppm	0.075 ppm	—
	1-hour	0.09 ppm	— ^e	Same as primary
Carbon monoxide	8-hour	9.0 ppm	9.0 ppm	—
	1-hour	20 ppm	35 ppm	—
Nitrogen dioxide	Annual	0.03 ppm	0.053 ppm	Same as primary
	1-hour	0.18 ppm	—	—
Sulfur dioxide	Annual	—	0.03 ppm	—
	24-hour	0.04 ppm	0.14 ppm	—
	3-hour	—	—	0.5 ppm
	1-hour	0.25 ppm	—	—
PM ₁₀	Annual	20 µg/m ³	-- ^f	Same as primary
	24-hour	50 µg/m ³	150 µg/m ³	Same as primary
PM _{2.5}	Annual	12 µg/m ³	15 µg/m ³	
	24-hour	—	35 µg/m ^{3 f}	
Lead	Calendar quarter	—	1.5 µg/m ³	Same as primary
	30-day average	1.5 µg/m ³	—	—
Notes: (a) Standards, other than for ozone and those based on annual averages, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one. (b) Concentrations are expressed first in units in which they were promulgated. Equivalent units given in parenthesis. (c) Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than 3 years after that state's implementation plan is approved by the EPA. (d) Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. (e) The national 1-hour ozone standard was revoked by U.S. EPA on June 15, 2005. (f) The annual PM ₁₀ standard was revoked by U.S. EPA on September 21, 2006, and a new PM _{2.5} 24-hour standard was established.				

State

The California Air Resources Board (CARB) coordinates and oversees both state and federal air pollution control programs in California. As part of this responsibility, CARB monitors existing air quality, establishes state air quality standards, and limits allowable emissions from vehicular sources. Regulatory authority within established air basins is provided by Air Pollution Control and Management Districts,

which control stationary-source and most categories of area-source emissions and develop regional air quality plans. The project is located within the jurisdiction of the Monterey Bay Unified Air Pollution Control District.

California has established its own set of ambient air quality standards (the California Ambient Air Quality Standards or CAAQS) for the seven pollutants with federal standards. In addition, California has standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. The state standards are also presented in **Table 4.3-2**. The California Clean Air Act, effective January 1, 1989, provides a planning framework for attaining the state standards. Nonattainment areas in the state were required to prepare plans for attaining these standards. Attainment plans are required to demonstrate a five percent per year reduction in the emissions of nonattainment pollutants or their precursors, unless all feasible measures are being employed. The attainment status of the NCCAB is described under the section titled “Air Pollutant Concentrations, Standards Violations and Risk Levels” below.

The state also regulates Toxic Air Contaminants (TACs) separately from those pollutants with CAAQS primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act institutes a formal procedure for designating substances as TACs. The procedure includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. CARB adopts an Airborne Toxics Control Measure for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below the threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology (BACT) to minimize emissions. For source categories under the regulatory jurisdiction of the individual air districts (as previously described), those air districts adopt and enforce the control measure locally.

Within California, the Office of Environmental Health Hazard Assessment (OEHHA) works with CARB to address health risk issues associated with TACs. The OEHHA establishes Reference Exposure Levels (RELs) as indicators of potential adverse health effects. A REL is a concentration level of a TAC at or below which no adverse health effects are anticipated. The OEHHA has published health Risk Assessment Guidelines for the Air Toxics Hotspots program. Within California, those guidelines are commonly referenced in the adoption of general health risk policies, assessment guidelines, and thresholds at the regional level.

In August 1998, CARB listed “Particulate Matter Emissions from Diesel-Fueled Vehicles” as a TAC. In 2000, CARB developed a Risk Reduction Plan (RRP) to address this source of TACs and is currently in the process of implementing this Plan. The RRP estimated cancer risk levels from diesel particulate matter (DPM) emissions associated with various source categories, including freeways, stationary engines, distribution (trucking) centers, truck stops, and locations with concentrations of school bus idling. The RRP contains the following three components:

1. New regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by 90 percent overall from 2000 levels;
2. New retrofit requirements for existing on-road, off-road, and stationary diesel-fueled engines and vehicles where determined to be technically feasible and cost-effective; and
3. New Phase 2 diesel fuel regulations to reduce the sulfur content levels of diesel fuel to no more than 15 ppm to provide the quality of diesel fuel needed by the advanced DPM emission controls.

According to the RRP, “the projected emission benefits associated with the full implementation of this plan, including proposed federal measures, are reductions in diesel PM emissions and associated cancer risks [relative to a year 2000 baseline] of 75 percent by 2010 and 85 percent by 2020.” Since adoption of the RRP, CARB has conducted regulatory activities to implement all three plan components. Examples

include the “Diesel Particulate Matter Control Measure for On-road Heavy-duty Diesel-fueled Residential and Commercial Solid Waste Collection Vehicles” and Airborne Toxic Control Measures for stationary compression ignition engines; portable engines rated at 50 horsepower and greater; in-use diesel-fueled transport refrigeration units (TRU) and TRU generator sets, and facilities where TRUs operate; and diesel-fueled commercial motor vehicle idling.

In 2005, CARB published *Air Quality and Land Use Handbook: A Community Health Perspective* (referred to hereafter as “Air Quality and Land Use Handbook”). This document includes various siting recommendations for proposed sensitive land uses relative to localized air pollution sources. Some of its recommendations are based on exposure to TACs in general and DPM in particular. The Air Quality and Land Use Handbook recommends avoiding the siting of “new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.” This recommendation is based largely on the contribution of DPM to the overall air pollution impact from such transportation sources.

In July 2007, CARB approved a new regulation to reduce emissions from existing off-road diesel vehicles in California in construction, mining, and other industries. The regulation requires vehicle fleets to either meet a set of fleet average targets for NOx and particulate matter or to turn over and apply exhaust retrofits to a certain percent of the fleets’ horsepower (hp) per year. As part of the recently signed California budget, the California legislature has directed the Air Resources Board to make several changes to the in-use off-road diesel vehicle regulation.

According to the ARB website (<http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>, accessed Feb. 27, 2009), the changes ARB has been directed to make will lessen the requirements of the regulation for many large fleets in the early years of the regulation and include the following:

- Fleets who are now using their off-road vehicles less than they did as of July 1, 2007 may take credit for this reduced fleet activity to satisfy turnover and retrofitting requirements in 2010 and 2011.
- Fleets will be given credit (both PM and NOx) for any vehicle retirements made between March 1, 2006 and March 1, 2010 as long as total fleet horsepower decreased from the previous year.
- For the total cumulative turnover and retrofit requirements for the years 2011 through 2013, fleets may complete 20 percent of the total turnover and retrofitting by March 1, 2011, an additional 20 percent by March 1, 2012, and the balance by March 1, 2013.

Regional

The MBUAPCD regulates air quality in the NCCAB and is responsible for attainment planning related to criteria air pollutants, district rule development, and enforcement. It also reviews air quality analyses prepared for CEQA assessments and has published the CEQA Air Quality Guidelines document for use in evaluation of air quality impacts.

Ozone. In accordance with the California Clean Air Act, the MBUAPCD developed the 2004 Air Quality Management Plan (AQMP). The 2004 AQMP proposes adoption of control measures for the following sources: solvent cleaning operations, spray booths (misc. coatings and cleaning solvents), degreasing operations, adhesives and sealants, natural gas-fired fan-type central furnaces, and residential water heaters. The 2004 AQMP acknowledges that, even with implementation of its recommendations, “some areas of the Basin may still not achieve the standard.” It attributes ongoing violations of the one-hour state ozone standard, in part, to “variable meteorological conditions occurring from year to year, transport of air pollution from the San Francisco Bay Area, and locally generated emissions.” MBUAPCD rules relevant to the emissions of ozone precursors (specifically, reactive organic gases or “ROG”) from

sources related to the proposed project include Rule 425 (Use of Cutback Asphalt) and Rule 426 (Architectural Coatings).

Carbon Monoxide. MBUAPCD monitoring stations have not recorded violations of the federal or state CO standard. In connection with proposed land development projects, the MBUAPCD addresses potential CO exposure issues primarily through guidance on how and under what conditions local ambient CO “hot-spot” analysis should be performed in the context of air quality assessments for documents prepared pursuant to the CEQA.

Particulate Matter. MBUAPCD planning related to attainment of the state’s PM₁₀ standard is addressed in the 2005 Report on the Attainment of the California Particulate Matter Standards in the Monterey Bay Region (Senate Bill 656 Implementation Plan, dated December 1, 2005). This plan describes the greater vulnerability of coastal locations within the NCCAB to PM₁₀ standard violations, due largely to the contribution from sea salt. It focuses primarily on controlling particles in fugitive dust and smoke related to combustion, but also addresses NOx- and ROG-related particulate matter formation. Consistent with the requirements of SB 656, and with the difficulty in estimating future ambient concentrations of particulate matter substantially influenced by fugitive dust sources (even disregarding unusual burn events), this plan concentrates on identification of and implementation scheduling for available particulate matter emission control measures.

Public Nuisances. MBUAPCD regulates the creation of air pollutant emissions that would cause public nuisances while operating within the District under Rule 402. This rule states: "No person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of people or to the public; or which endanger the comfort, repose, health or safety of any such person or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property." (HSC Section 41700)

Toxic Air Contaminants. MBUAPCD Rule 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants) addresses exposure issues for TACs in general. It applies to stationary sources for which the state has not adopted an Air Toxics Control Measure (ATCM). It considers new and modified TAC source review and risk assessment requirements. The MBUAPCD’s CEQA Air Quality Guidelines provide the following guidance to evaluate the potential significance of project-related TAC impacts:

“Construction, equipment or processes not subject to Rule 1000 that emit noncarcinogenic TACs could result in significant impacts if emissions would exceed the threshold that is based on the best available data [i.e., acute (1-hour) REL, chronic (annual) REL, permissible exposure levels (PEL)/420]. In addition, temporary emissions of a carcinogenic TAC that can result in a cancer risk greater than one incident per 100,000 population are considered significant.

Likewise, a project which would be located adjacent to a source of TACs unregulated by Rule 1000 may also result in significant impacts to air quality and human health and require modeling. Common sources of TACs include diesel-fueled internal combustion engines.”

The MBUAPCD assumes that diesel particulate matter is the key element of diesel exhaust with respect to cancer risk. In December 2008, OEHHA approved the document: “Air Toxics Hot Spots Program Technical Support Document for the Derivation of Non-Cancer Reference Exposure Levels” (hereafter, the “TSD”). The TSD presents methodology revised to reflect scientific knowledge and techniques developed since the previous guidelines were prepared and to explicitly consider effects on the health of infants, children, and other sensitive subpopulations, in accordance with the mandate of the Children’s Environmental Health Protection Act (Senate Bill 25, Escutia, chapter 731, statutes of 1999, Health and

Safety Code Sections 39669.5 et seq.). In addition to the previously defined acute and chronic RELs, the new method allows for the estimation of 8-hour RELs, which may be useful in dealing with some special circumstances in Hot Spots risk assessments. The TSD also contains proposed Reference Exposure Levels for six chemicals (acetaldehyde, acrolein, arsenic, formaldehyde, manganese, and mercury). Although it was published in the TSD, MBUAPCD does not currently enforce the acrolein REL per the MBUAPCD CEQA Guidelines page 9-1. This EIR addresses acrolein within the analysis of Diesel Particulate Matter, below. The affects of acrolein exposure above the REL were documented by the TSD to be temporary irritation of the eyes and respiratory system.

Local

At the local level, the MBUAPCD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws. Air quality is also managed through land use and development planning practices. The MBUAPCD has adopted emission thresholds to determine the level of significance of a project's emissions. The District adopted an *Air Quality Management Plan* (AQMP) in 1991 and 1994 to address attainment of the state air quality standards, recently updated this plan in 2008.

Projects directly related to population growth (i.e., residential projects) have been forecast in the AQMP using population forecasts adopted by the Association of Monterey Bay Governments (AMBAG). In general, population-related projects that are consistent with these forecasts are consistent with AQMP since emissions for projects have been accounted for in the Plan and mitigated on a regional level through implementation of control measures identified in the Plan. A formal consistency determination from the Association of Monterey Bay Area Governments (AMBAG) is required for the residential portion of the project.

Monterey County General Plan.² The Monterey County General Plan provides policies for the protection and enhancement of resident's air quality. The following policies are pertinent to the proposed project:

Policy 20.1.1 The County's land use and development policies shall be integrated and consistent with the natural limitations of the County's air basin.

Policy 20.1.3 The County should develop and implement, where appropriate, a roadside tree program and should encourage and maintain vegetated/forested areas to the maximum extent feasible, for their air purifying functions.

Policy 20.2.2 The County shall adopt and support, as a minimum, the Air Quality Plan for the Monterey Bay Region as prepared by AMBAG.

Policy 20.2.5 The County shall encourage the use of the best available control technology as defined in the most current Monterey Bay Unified Air Pollution Control District.

Policy 38.1.1 The County shall support the implementation of measures for reducing air pollution from transportation sources.

Carmel Area Land Use Plan/Local Coastal Plan. The Carmel Area Land Use Plan does not directly address air quality protection or pollution, but it does identify the significance of clean air as an important

² The applicable General Plan was as amended 1996. These policies do not include modifications reflected in the proposed/draft 2007 General Plan Update.

factor for the viability of the Carmel Area within the Plan, “In the viability of our Carmel Area, clean air, clean water, low noise level, and open space are all important factors.”

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Sensitive Receptors

Sensitive receptors or populations are more susceptible to the effects of air pollution than are the general population. Sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, and convalescent and retirement homes.

The receptors that should be considered in the analysis of carbon monoxide levels include the following, as set forth in the MBUAPCD CEQA Air Quality Guidelines:

- Sidewalks where general public has access on a continuous basis (1-hour)
- Parking lots where pedestrians have continuous access (1-hour)
- Property lines of hospitals, rest homes, schools, playgrounds (1-hour and 8-hour)
- Property lines of residences where continuous outdoor exposure is expected (1- and 8-hour)
- Setbacks of residences where continuous exposure is expected (1-hour and 8-hour)

Existing sensitive receivers in the project vicinity include are as follows as shown in **Figures 3-4** and **3-5**:

- Single-family and multi-family residences surrounding the project site, varying in distance from 10 to 100 feet from the project site.
- Carmel High School which is located 1/2 mile to the south of the site.

Emissions

Table 4.3-3 summarizes the most recent emissions inventories for Monterey County and the NCCAB as a whole. As shown in **Table 4.3-3**, on-road motor vehicles represent only one of many categories of emissions sources within the County and NCCAB. However, such vehicles account for nearly half of total human-generated CO and NO_x emissions. Both area-wide and mobile sources contribute substantially to emissions of ROG. For PM₁₀, emissions from “miscellaneous processes” are dominant. Construction-related activities also contribute to regional air pollutant emissions. Such activities account for an estimated six percent of County- and Basin-wide PM₁₀ emissions under the “Area-Wide Sources: Miscellaneous Processes” category, a large proportion of the approximately six percent of “Area-Wide Sources: Solvent Evaporation” emissions of ROG attributed to the application of architectural coatings and asphalt paving, and a small proportion of the estimated emissions in the “Mobile Sources: Other Mobile” category.

Table 4.3-3 2006 Estimated Annual Average Emissions Of Selected Air Pollutants For The NCCAB And Monterey County (NCCAB Portion)						
Emissions in NCCAB (tons per day)						
	TOG	ROG	CO	NO _x	PM ₁₀	PM _{2.5}
STATIONARY SOURCES						
Fuel Combustion	2.9	0.9	12.5	15.5	1.1	1.1
Waste Disposal	230.8	1.5	0.3	0	0	0
Cleaning and Surface Coatings	4.3	3.4	-	-	-	-
Petroleum Production and Marketing	3.2	2.5	0	0	-	-
Industrial Processes	1.1	0.9	13.3	2.6	3	0.9
<i>* TOTAL STATIONARY SOURCES</i>	<i>242.3</i>	<i>9.2</i>	<i>26.1</i>	<i>18.1</i>	<i>4.2</i>	<i>2</i>
AREA-WIDE SOURCES						
Solvent Evaporation	17.2	16.3	-	-	-	-
Miscellaneous Processes	57.6	11.2	164.4	5.7	69.1	24
<i>* TOTAL AREA-WIDE SOURCES</i>	<i>74.8</i>	<i>27.4</i>	<i>164.4</i>	<i>5.7</i>	<i>69.1</i>	<i>24</i>
MOBILE SOURCES						
On-road Motor Vehicles	21.7	19.8	203.1	44.6	1.9	1.4
Other Mobile Sources	10.8	9.9	65.8	14.5	1.1	1
<i>* TOTAL MOBILE SOURCES</i>	<i>32.5</i>	<i>29.6</i>	<i>268.9</i>	<i>59.1</i>	<i>3</i>	<i>2.4</i>
NATURAL/NON-ANTHROPOGENIC SOURCES	82	73.4	43.5	1.5	4.5	3.8
GRAND TOTAL FOR NCCAB	431.5	139.6	502.9	84.4	80.7	32.3
Emissions in Monterey County - NCCAB portion (tons per day)						
	TOG	ROG	CO	NO _x	PM ₁₀	PM _{2.5}
STATIONARY SOURCES						
Fuel Combustion	1.9	0.6	11.6	12.5	0.9	0.9
Waste Disposal	127.1	0.8	0.1	0	0	0
Cleaning and Surface Coatings	1.9	1.6	-	-	-	-
Petroleum Production and Marketing	2.3	1.8	0	0	-	-
Industrial Processes	0.4	0.4	0	0	0.9	0.3
<i>* TOTAL STATIONARY SOURCES</i>	<i>133.6</i>	<i>5</i>	<i>11.7</i>	<i>12.5</i>	<i>1.8</i>	<i>1.2</i>
AREA-WIDE SOURCES						
Solvent Evaporation	11.1	10.6	-	-	-	-
Miscellaneous Processes	33.9	6.7	106.2	3.6	42.2	15.2
<i>* TOTAL AREA-WIDE SOURCES</i>	<i>45</i>	<i>17.2</i>	<i>106.2</i>	<i>3.6</i>	<i>42.2</i>	<i>15.2</i>
MOBILE SOURCES						
On-road Motor Vehicles	11.7	10.6	117.5	24	1	0.8
Other Mobile Sources	7.9	7.2	45.2	24.9	2	1.9
<i>* TOTAL MOBILE SOURCES</i>	<i>19.6</i>	<i>17.8</i>	<i>162.7</i>	<i>49</i>	<i>3.1</i>	<i>2.7</i>

Table 4.3-3 2006 Estimated Annual Average Emissions Of Selected Air Pollutants For The NCCAB And Monterey County (NCCAB Portion)						
Emissions in NCCAB (tons per day)						
	TOG	ROG	CO	NO _x	PM ₁₀	PM _{2.5}
NATURAL/NON-ANTHROPOGENIC SOURCES	58.2	51.1	40.7	1.4	4.2	3.6
GRAND TOTAL FOR MONTEREY COUNTY	256.4	91.2	321.3	66.5	51.4	22.7
Notes: TOG = Total Organic Gases; ROG = Reactive Organic Gases						
Source: CARB, "Almanac Emission Projection Data" (http://www.arb.ca.gov/ei/maps/basins/abnccmap.htm)						

Toxic Air Contaminants. Table 4.3-4 summarizes estimated County-wide emissions of TACs relevant to the project. While Table 4.3-3 reported emissions estimates in units of tons per day, this table reports such estimates in units of tons per year. Note that "Other Mobile" sources are estimated to account for more than half of County-wide emissions of DPM, while County-wide lead emissions are attributed primarily to area-wide sources (which, for the latter, could include demolition-related activities).

Table 4.3-4 2004 Estimated Daily Average Emissions Of Selected Toxic Air Contaminants for Monterey County						
Pollutant	Emissions (tons/year) by Source Category					
	Stationary	Area-wide	On-road Mobile	Other Mobile	Natural	Total
Diesel engine exhaust, particulate matter (DPM)	21.28	--	104.76	187.64	--	313.68
Lead	0.00	2.96	0.01	0.12	--	3.10
Source: ARB, California Toxics Inventory (CTI), 2004. (http://www.arb.ca.gov/toxics/cti/cti.htm)						

Air Pollutant Concentrations, Standards Violations, and Risk Levels

Ambient air pollutant concentrations are affected by the rates and distributions of corresponding air pollutant emissions, as well as by the climactic and topographic influences discussed above. The primary determinant of concentrations of non-reactive pollutants, such as CO and PM₁₀, is proximity to major sources. As previously discussed, ambient CO levels usually closely follow the spatial and temporal distributions of vehicular traffic.

CARB (occasionally with the assistance of private sector partners) and relevant air pollution control districts operate a number of ambient air quality monitoring stations throughout the County and the remainder of the NCCAB. For each of the previous three years, Table 4.3-5 summarizes the highest measured concentrations of selected key state air quality standards recorded at each of the applicable monitoring stations. (As previously discussed, the NCCAB is designated as Unclassified/Attainment with respect to the less stringent federal air quality standards for the key criteria air pollutants, and violations of those standards are not recently an issue within the NCCAB.)

The MBUAPCD monitors air quality at 10 monitoring stations in the NCCAB. The National Park Service also operates a station at Pinnacles National Monument. Two monitoring stations are located

within the project vicinity, one located in Carmel Valley (34 Ford Road) and the other located in Salinas (855 E. Laurel Dr.). Pollutants monitored on a continuous basis at the Carmel site include ozone and PM₁₀, and pollutants at the Salinas site include ozone, PM₁₀ and PM_{2.5}, CO, and NO_x – NO₂.

Table 4.3-5				
Highest Measured Air Pollutant Concentrations				
Pollutant	Average Time	Measured Air Pollutant Levels		
		2004	2005	2006
Carmel Valley				
Ozone (O ₃)	1-Hour	0.09 ppm	0.07 ppm	0.09 ppm
	8-Hour	0.08 ppm	0.07 ppm	0.07 ppm
Fine Particulate Matter (PM ₁₀)	24-Hour	31 ug/m ³	23 ug/m ³	28 ug/m ³
	Annual	NA	NA	NA
Salinas				
Ozone (O ₃)	1-Hour	0.08 ppm	0.07 ppm	0.07 ppm
	8-Hour	0.07 ppm	0.06 ppm	0.06 ppm
Fine Particulate Matter (PM ₁₀)	24-Hour	45 µg/m ³	37 µg/m ³	51 µg/m³
	Annual	17 µg/m ³	16 µg/m ³	18 µg/m ³
North Central Coast Air Basin (Basin Summary)				
Ozone (O ₃)	1-Hour	0.093 ppm	0.107 ppm	0.105 ppm
	8-Hour	0.083 ppm	0.085 ppm	0.088 ppm
Fine Particulate Matter (PM ₁₀)	24-Hour	83 µg/m³	69 µg/m³	65 µg/m³
	Annual	28 µg/m³	24 µg/m³	25 µg/m³
Source: California Air Resources Board Air Quality Data website http://www.arb.ca.gov/aqd/aqdpag.htm				
Note: ppm = parts per million and ug/m ³ = micrograms per cubic meter				
Values reported in bold exceed applicable state ambient air quality standard				
NA = data insufficient or not available.				

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged differently for each air pollutant. The NCCAB is classified as an attainment area for the federal ozone standards, as well as a non-attainment area for the state PM₁₀ and 1-hour ozone standards. For all other standards, the NCCAB is either unclassified or in attainment.

For TACs, impacts are often evaluated ultimately in terms of cancer risk or (for non-cancer effects) in terms of proportions of applicable RELs. At the present time, one can infer from the cancer risk mapping published by the ARB's Emission Inventory Branch that most areas within the Monterey County – including at least most if not all of the designated land use areas within the proposed project site – are exposed to average inhalation cancer risk levels between about 50 and 250 per million. While that is a relatively wide range, it can help put into context the incremental cancer risk thresholds that will be discussed later in this section.

Greenhouse Gas and Global Climate Change

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect (Intergovernmental Panel on Climate Change or IPCC, 2008). Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a). A byproduct of fossil fuel combustion is CO₂. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills. CO₂ accounts for approximately 85 % of total emissions from human sources, and methane and nitrous oxide account for almost 14%. Processes that absorb and accumulate CO₂, often called CO₂ "sinks," include uptake by vegetation and dissolution into the ocean.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO₂ in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (California Energy Commission 2006a). Carbon dioxide equivalents (CO₂e) are a measurement used to account for the fact that various GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Methane, for example has a global warming potential of 23 times that of CO₂, and nitrous oxide has a global warming potential of 296 times that of CO₂.

State of California Climate Change Regulatory Framework

This section describes recent state regulations that specifically address greenhouse gas emissions and global climate change. At the time of writing, there are no regulations setting ambient air quality standards or emission limits for greenhouse gases, except overall California emission limits set by Assembly Bill 32 (AB32) as described below, and there are no adopted thresholds of significance for greenhouse gas emissions.

Assembly Bill 1493. In 2002, Assembly Bill (AB) 1493 was passed requiring that the California Air Resources Board (ARB) develop and adopt regulations by January 1, 2005, that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty truck and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

Executive Order S-3-05. Executive Order S-3-05, signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snow pack, further exacerbate California's air quality problems,

and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary must also submit biannual reports to the governor and state legislature describing: 1) progress made toward reaching the emission targets; 2) impacts of global warming on California's resources; and 3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Act Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government, and community actions, as well as through state incentive and regulatory programs.

Assembly Bill 32, the California Climate Solutions Act of 2006. In September 2006, Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then ARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32. AB 32 requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

The ARB, with input from the Climate Action Team, approved a Climate Change Scoping Plan in December 2008. The Scoping Plan proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, and enhance public health while creating new jobs and enhancing the growth in California's economy. Subsequently, ARB released their *"Preliminary Draft Staff Proposal Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases"* in October 2008 (hereafter referred to as "ARB's Draft Thresholds"). With this Staff Proposal, ARB staff took the first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. ARB staff focused on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. Specifically, for residential and commercial projects that are not exempt and do not comply with a previously approved plan that addresses GHGs (as is the situation for this project), ARB staff has preliminarily recommended a combined qualitative and quantitative threshold. Specifically, projects must comply with performance standards in the areas of construction emissions, energy use, water use, waste generation, and transportation combined with a yet to be determined quantitative criteria (i.e., the project, with performance standards or equivalent mitigation, will emit no more than X metric tons CO₂e/yr).

Senate Bill 1368. SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard. Therefore, on January 25, 2007, the PUC adopted an interim GHG Emissions Performance Standard in an effort to help mitigate climate change. The

Emissions Performance Standard is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO₂ per megawatt-hour. "New long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of five years or more, or major investments by the utility in its existing baseload power plants. In addition, the California Energy Commission (CEC) established a similar standard for local publicly owned utilities that cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. On July 29, 2007, the Office of Administrative Law disapproved the Energy Commission's proposed Greenhouse Gases Emission Performance Standard rulemaking action and subsequently, the CEC revised the proposed regulations. Those regulations can be found at <http://www.energy.ca.gov/ghgstandards/documents/index.html>. SB 1368 further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

SB 97. On August 24, 2007, the governor signed this bill which advances a coordinated policy for reducing greenhouse gas emissions by directing the California Office of Planning and Research (OPR) and the California Resources Agency to develop CEQA guidelines on how state and local agencies should analyze, and when necessary, mitigate greenhouse gas emissions. Subsequently, on June 19, 2008, OPR published "CEQA & Climate Change Technical Advisory." OPR, in collaboration with the California Resources Agency, the California Environmental Protection Agency, and the California Air Resources Board, prepared this technical advisory to provide informal guidance for public agencies as they address the issue of climate change in their CEQA documents. This technical advisory provides OPR's perspective on the issue and precedes the development of draft implementing regulations for CEQA, in accordance with Senate Bill 97 (Chapter 185, Statutes of 2007).

SB 375. On September 30, 2008, Governor Schwarzenegger signed Senate Bill 375 (Steinberg; Chapter 728, Statutes of 2008), which combines regional transportation planning with sustainability strategies in order to reduce GHG emissions in California's urban areas. It also establishes new streamlining opportunities for infill, compatible projects under CEQA.

Executive Order S-13-08. On November 14, 2008, Governor Schwarzenegger issued executive order S-13-08 to enhance the state's management of climate impacts from sea level rise, increased temperatures, shifting precipitation, and extreme weather events. Key actions in the order include: 1) initiate California's first statewide climate change adaptation strategy; 2) ask the National Academy of Science for an expert panel to report on sea level rise impacts in California; 3) issue guidance to state agencies to plan for sea level rise in designated coastal and floodplain areas for new projects; and 4) initiate a report on critical existing and planned infrastructure projects vulnerable to sea level rise.

Monterey County Climate Change Regulatory Framework

The MBUAPCD does not currently regulate the emissions of GHGs. The proposed/draft Monterey County 2007 General Plan Draft EIR requires the County to complete a Greenhouse Gas Reduction Plan prior to the year 2012. With adoption of this mitigation measure and completion and implementation of the proposed Greenhouse Gas Reduction Plan, a framework would be in place to achieve substantial GHG emission reductions by 2020 that will be consistent with AB 32. Future development consistent with the currently proposed Draft Monterey County 2007 General Plan would then be also be consistent with AB32.

Relevant Project Characteristics

Implementation of the project would involve a conversion of 10,350 square feet of the existing hospital structure into 9 condominium units and construction of 37 additional condominium units in 10 to-be-constructed buildings, for a total of 46 condominium units. Approximately 8,036 square feet of the existing site structures will be demolished to accommodate development of the proposed project. Existing structures to be demolished include portions of the hospital building and garage building, the entire nurse's building and two storage sheds. The newly-built structures would be two to three stories. Each residential unit is proposed to have a wood burning fireplace. The project would include common residential village space for underground and surface parking, a recreation room, gym, and storage facilities. Total parking located on the project site would be 108 spaces, with 90 covered spaces and 18 uncovered spaces. The site's existing entrance from Highway 1 would be abandoned. The site's existing entrance on Valley Way would be relocated 180 feet south on Valley Way. The Villas de Carmelo Project is based upon a Tentative Map, which shows proposed lots and infrastructure improvements.

Construction of the project is anticipated to begin in September of 2009 and be completed by April of 2011. The proposed project would be constructed in two phases. Phase 1 would include all planned demolition and grading activities on the project site, as well as all utility access infrastructure extensions. Phase 1 would also involve construction of thirty of the proposed forty-six units on the project site (units 1-13 and units 30-46). Phase 2 would involve construction of the remaining proposed sixteen units on the project site (units 14-29). The project will require extensive grading on the site to facilitate construction of proposed uses. The site would be graded to utilize the existing topography, including grading of slopes for parking garages and to minimize the height and visibility of the buildings. The portion of the project site that borders Highway 1 would include an earth berm and a wall that will be densely landscaped in order to screen the site from Highway 1 and to minimize traffic noise from Highway 1. Proposed grading would occur throughout most of the site and would involve approximately 13,242 cubic yards (CY) of cut/fill. Total earth disturbance, has been estimated by the project applicant to be approximately 9,589 CY of cut and 3,653 CY of fill for a net export of approximately 5,936 CY. The grading will be subject to grading plan approval by the County of Monterey.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- conflict with or obstruct implementation of the applicable air quality plan;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- expose sensitive receptors to substantial pollutant concentrations; or
- create objectionable odors affecting a substantial number of people.

MBUAPCD has established thresholds of significance for air quality impacts, which the County applies. Based on criteria applied in or adapted from the MBUAPCD CEQA Air Quality Guidelines, the project's impacts on criteria air pollution would be significant if the project would:

- 1) during construction, result in direct emissions of more than 82 lb/day of PM₁₀;
- 2) during operations:
 - a) generate direct plus indirect emissions of either ROG or NO_x that exceed 137 lb/day
 - b) generate on-site emissions of PM₁₀ exceeding 82 lb/day
 - c) generate direct emissions of CO exceeding 550 lb/day;
 - d) cause or substantially contribute to a violation of PM₁₀ standard near any off-site unpaved roads along which project-generated vehicle trips would travel;
 - e) cause or substantially contribute to a violation of a CO standard; or
 - f) be inconsistent with the adopted AQMP.

Regarding item 2e, the CEQA Air Quality Guidelines indicate that the following traffic effects should be assumed to generate a significant CO impact, unless CO dispersion modeling demonstrates otherwise:

- Intersections or road segments that operate at LOS D or better that would operate at LOS E or F with the project's traffic;
- Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 (five percent) or more with the project's traffic;
- Intersections that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic;
- Unsignalized intersections which operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic (based on the turning movement with the worst reserve capacity); or
- Project would generate substantial heavy duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO.

CARB recommends a buffer of 500 feet between sensitive receptors and urban roads with an average of 100,000 vehicles or more per day.³ The proposed project is located entirely within 500 feet of State Highway 1, a state highway with less than 50,000 vehicles per day. According to the MBUAPCD CEQA Guidelines, a sensitive receptor is generally defined as a location where sensitive populations (e.g., children, seniors, sick persons) could reasonably be exposed to continuous emissions, such as residences, hospitals, and schools. Per MBUAPCD CEQA Guidelines, the required CO analysis considers the following additional sensitive receptors to analyze the short-term affects of CO inhalation on sensitive populations:

- Sidewalks where general public has access on a continuous basis (1-hour)
- Parking lots where pedestrians have continuous access (1-hour)

³ *Air Quality and Land Use Handbook: A Community Health Perspective*, California Air Resources Board, April 2005

- Property lines of hospitals, rest homes, schools, playgrounds (1-hour and 8-hour)
- Property lines of residences where continuous outdoor exposure is expected (1- and 8-hour)
- Setbacks of residences where continuous exposure is expected (1-hour and 8-hour)

Cumulative Regional Ozone Thresholds

For cumulative regional ozone impacts, the MBUAPCD recommends that the project be assessed for consistency with the 2008 Air Quality Management Plan for the NCCAB. A formal consistency determination from the Association of Monterey Bay Area Governments (AMBAG) is required for the residential portion of the project. A copy of this determination is included in **Appendix C**.

Greenhouse Gas Emissions/Global Climate Change Significance Thresholds

The state, air districts, and local jurisdictions have not adopted or approved significance thresholds for GHG emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions; although guidance documents and proposed thresholds have been prepared as described above. Under Senate Bill 97 (August 2007), OPR is to certify and adopt guidelines for evaluation of the effects of greenhouse gas emissions and mitigation of those effects by January 1, 2010. OPR's draft amendments to the CEQA guidelines became available January 9, 2009 (see: <http://opr.ca.gov/ceqa/pdfs/>).

GHG emissions do not create environmental effects; rather it is the cumulative increased concentration of CO₂ (and other GHGs) in the atmosphere that results in global climate change and associated consequences. Therefore, this issue is considered solely a cumulative impact issue and the key question for this analysis is whether a project would contribute considerably to any cumulative global climate change impact by emitting a substantial amount of new greenhouse gases. While it is possible to estimate a portion of the project's GHG emissions, it is typically not possible to determine whether those emissions (however small) would manifest into significant physical environmental impacts. The complexity of global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems preclude a meaningful determination of whether the GHGs emitted by a single project would result in a measurable or non-negligible change in climate.

In order to utilize a specific quantitative threshold of significance defining what constitutes "substantial new greenhouse gas emissions," this EIR relies upon the following key guidance documents:

- "CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act," California Air Pollution Control Officers Association (CAPCOA) January 2008 (hereafter "CAPCOA White Paper"); and
- "Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act," California Air Resources Board, October 24, 2008 (hereafter "CARB Draft Proposal").
- "Preliminary Draft CEQA Guideline Amendments for Greenhouse Gas Emissions," Office of Planning and Research (OPR), January 8 2008 (hereafter "OPR Proposed Amendments").

The CARB Draft Proposal recommends one or more of the following to determine if a residential or commercial project would emit GHGs triggering a significant impact on global climate change:

- Would the project otherwise be considered as exempt from CEQA? ⁴

⁴ Specifically, the CARB Draft Proposal (page 13) indicates that a typical project that would qualify for a statutory infill project exemption (Cal. Code Regs. Tit. 14, section 15195) would emit approximately 1,600 metric ton CO₂e/yr.

- Would the project comply with an approved and CEQA-evaluated GHG Reduction Plan satisfying CEQA Guidelines 15064(h)(3), AB 32, SB 375, and Executive Order S-3-05, and would it provide mechanism(s) for reducing, monitoring, reporting, and evaluating GHG emissions?
- Would the project propose or be required to implement performance standards listed below, and with implementation of those performance standards, would the project emit no more than an unspecified amount of GHGs?
 - Compliance with approved GHG emissions plan/Climate Action Plan and SB 375 plan;
 - CEC's Tier II Energy Efficiency (30% reduced heating/cooling/water heating beyond 2008 Title 24);
 - Green Bldg. Rating Systems (i.e., LEED, GreenPoint Rated, CA Green Bldg Code); and
 - Idling limitations, reducing grading, water conservation, material reuse and recycling.

The CARB Draft Proposal also recommends a 7,000 metric ton CO₂e/yr numeric threshold for industrial projects. That is, any industrial project that exceeds that amount of emissions would be considered to have a significant impact due to a considerable contribution to global climate change.

The OPR Proposed Amendment § 15064.7(c) states: “When adopting thresholds of significance, a lead agency may consider thresholds of significance adopted by other public agencies and recommendations of others, provided such thresholds or recommendations are supported by substantial evidence, including expert opinion based on facts.” Until state agencies, the MBUAPCD, or Monterey County adopt thresholds, Monterey County is proposing thresholds specific to this project only.

This EIR will consider a project's greenhouse gas emissions as substantial and potentially contributing considerably to global climate change impacts, if the project construction emissions would:

- Exceed 900 metric tons CO₂e/yr (source: CAPCOA White Paper, page 49, approximately emitted by a residential development of 50 units);
- Would conflict with Monterey County's policies related to climate change in the Draft 2007 General Plan Update or analysis within the Draft EIR for the General Plan;⁵ and
- Would hinder attainment of the state's goals of reducing greenhouse gas emissions to 1990 levels by 2010 (OPR Proposed Amendments §15064.4(a)(1)).

Impacts and Mitigation

Construction Period Impacts –PM₁₀ from Fugitive Dust

Construction would primarily be accomplished using diesel-powered, heavy equipment. Dust is generated from a variety of project construction activities that include grading, import/export of fill material, and vehicle travel on unpaved surfaces. Dust from construction includes PM₁₀. Soil can also be tracked-out onto paved roads where it is entrained in the air by passing cars and trucks. Additionally, dust can be generated by wind erosion of exposed areas. The rate of dust emissions is related to the type and size of the disturbance, meteorological conditions, and soil conditions. Construction activities can result in localized high concentrations of PM₁₀ and affect regional levels of PM₁₀. High levels of PM₁₀ can lead to adverse health effects, nuisance concerns, and reduced visibility.

⁵ Currently, the draft 2007 General Plan Update (draft Plan) is undergoing final environmental review, but has not been adopted by the Board of Supervisors.

The MBUAQMD CEQA Guidelines consider on-site emissions of 82 pounds per day or greater of PM₁₀ from construction activity to be significant. Due to the variables that affect the rate of construction emissions, quantification of construction period emissions is difficult. Total earth disturbance has been estimated by the project applicant to be approximately 9,589 cubic yards (CY) of cut and 3,653 CY of fill. The net amount of cut would be 5,936 CY, to be exported from the project site. Additional material would be imported to the site. This would include base rock, select soil/gravel for trenches and building pads, concrete, and asphalt for paving. Building materials would also be imported to the site.

Fugitive dust emissions would occur during the construction phase of the project. The greatest amount of dust emissions would be generated during the initial grading phase where the soil disturbance activities would be the most intense (i.e., cut and fill activities involving scrapers and other equipment). See **Table 4.3-6**. The other construction activities would generate dust emissions, but much less than during mass grading since the intensity of soil disturbance activities would be reduced.

Table 4.3-6						
Worst-Case Construction Emission Estimates (pounds per day)						
	ROG	NOx	CO	PM₁₀	PM_{2.5}	CO₂
2009						
Unmitigated	7.49	91.77	38.21	<u>219.84</u>	47.19	10,266.95
Mitigated	7.49	91.77	38.21	71.89	17.89	10,266.95
2010						
Unmitigated	17.76	28.09	21.33	1.69	1.53	3,167.37
Mitigated	17.76	28.09	21.33	1.69	1.53	3,167.37
2011						
Unmitigated	3.37	21.10	19.62	1.6	1.45	2,526.11
Mitigated	3.37	21.10	19.62	1.6	1.45	2,526.11
Threshold	137	137	550	82	NA	NA
The emissions above reflect both summer and winter results. Exceedances of MBUAPCD thresholds are shown in <u>bold underlined text</u> . NA = MBUAPCD does not have a quantified threshold for this pollutant during construction.						

Fugitive dust emissions would occur during construction. Additionally, during the initial construction phase, approximately 8,036 square feet of existing structures would be demolished, resulting in release of lead and dust particulate matter. Assumptions for the demolition activities are accounted for in the Urbemis 2007 model analysis. All demolition activities are subject to approval of a demolition permit from the MBUAPCD and adherence to the District's Rule 439, Building Removals, which contains requirements for the purpose of limiting particulate emissions, lead paint removal and asbestos during building removal to acceptable levels. The highest estimate of PM₁₀ emissions would occur during the initial construction phase when demolition and grading activities are at the highest levels.

Based on the results of the Urbemis 2007 model analysis shown in **Appendix C-2**, unmitigated emissions of PM₁₀ during the worst-case modeled summer construction day would be up to approximately 219.8 lbs per day (including up to 1.8 lbs per day of diesel particulate matter), which exceeds the relevant MBUAPCD threshold of 82 lbs/day. This worst-case emission day was expected to occur during the mass grading phase in 2009. *Therefore, the project would result in a significant impact to air quality due to PM₁₀ emissions during construction.* Mitigation is identified below for this impact. As documented in **Appendix C-2**, implementation of the first three bullets in mitigation measure 4.3-1 was estimated by

Urbemis 2007 to reduce the worst-case PM₁₀ emissions by 67% to 71.89 lbs per day, which is below the MBUAPCD threshold. Implementation of the mitigation would not result any new environmental impacts beyond those previously identified in this Draft EIR.

Impact **Construction activities, including clearing, excavation, and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed ground would generate dust and particulate matter emissions that may exceed MBUAPCD thresholds. *This is a significant impact that can be reduced to a less-than-significant level with the following mitigation measures.***

Mitigation

4.3-1 In order to reduce particulate matter emissions during construction, the project applicant or contractor shall submit a Construction Management Plan that includes a dust control plan to the Monterey County Planning and Building Inspection Department for review and approval prior to issuance of any grading permits. The dust control plan shall: 1) specify the methods of dust control to be utilized, 2) demonstrate the availability of needed equipment, materials, and personnel, 3) require the use reclaimed water for dust control, and 4) identify a responsible individual or individuals who can authorize and monitor implementation of the measures and any additional measures as needed. The plan shall be implemented by all relevant contractors at the site and shall be monitored daily by the Monterey County Planning and Building Inspection Department during demolition and grading activities at the site. The dust control plan shall, at a minimum, include the following measures:

- Water all active construction areas, including haul roads, at least twice daily and more often during windy periods. Active areas adjacent to existing businesses should be kept damp at all times. If necessary, during windy periods, watering is to occur on all days of the week regardless of onsite activities (reduces fugitive dust PM₁₀ from wind blown dust from active areas and unpaved road sources by 55%).
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (reduces PM₁₀ from inactive areas of 84%).
- Limit traffic speeds on unpaved roads and areas to 15 mph (reduces PM₁₀ from travel on unpaved haul roads by 44%).
- Cover all trucks hauling trucks or maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily if visible soil material is deposited onto the adjacent roads.
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
- Replant vegetation in disturbed areas as quickly as possible.
- Suspend excavation and grading activity when hourly-average winds exceed 15 mph and visible dust clouds cannot be contained within the site.
- Residences within 300 feet of a construction area shall be notified of the construction schedule in writing prior to commencement of construction. The contractor and Monterey County Planning and Building Inspection Department shall designate an air quality disturbance coordinator who would be responsible for responding to complaints during construction. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the air quality disturbance coordinator shall be conspicuously placed on the construction site and written into the construction notification schedule sent to nearby residences.

Construction Period Impacts –Diesel Exhaust from Equipment

CARB has identified diesel particulate matter as a toxic air contaminant. It is one of many toxic air contaminants; however, it is estimated to contribute about 70% to the overall potential inhalation cancer risk. Based upon CARB's new off-road diesel vehicle regulations described previously the diesel exhaust particulate matter, emissions will be reduced starting in 2010.

The heavy construction equipment utilized to construct this project would be diesel fueled. Grading of the site is expected to result in the highest emissions of diesel particulate matter during the construction period. Urbemis estimated a worst-case daily diesel particulate matter emission rate of 4.07 lbs/day.

There are typically two different periods of grading, a "rough" or "mass" grading phase that requires excavators and dozers and then a "fine" grading phase that may include motor graders, rollers, scrapers, and loaders. This equipment is typically used from 4 to 8 hours per day. Other phases of construction use smaller sized equipment (e.g., some loaders, forklifts, etc.), but include numerous heavy-duty truck deliveries for cement, asphalt, building materials, and landscape materials.

Diesel exhaust includes air contaminants that can cause health effects. The increased health risk from these types of emissions (i.e., increased cancer risk) is calculated over a 70-year continuous exposure period at locations of sensitive receptors. In addition, compounds within diesel exhaust, such as acrolein, have been documented to cause adverse health effects during short term exposures. The project site is directly adjacent to a residential neighborhood and less than ½ mile from the Carmel High School. Truck travel and construction equipment exhaust may result in elevated levels of diesel particulate matter for short time periods. Although construction activities at the site would occur for temporary and relatively short periods of time, the impact would be considered potentially significant due to the proximity of the sensitive receptors and the intensity of the project construction.

The impact can be reduced to a less-than-significant level provided the mitigation measures below are implemented to minimize exposure. Based on consultation with MBUAPCD, the mitigation measures provided below would reduce the diesel particulate matter emissions below the MPUAPCD threshold of cancer risk of 10 per 1,000,000 people. Specifically, addition of currently available catalytic diesel particulate filters (those emission control devices classified as "Level 3" by the Air Resources Board) on to diesel construction equipment and vehicles has been verified (demonstrated) to reduce diesel particulate matter emissions by 85% (Air Resources Board website at <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>). Implementation of these mitigation measures would not result any new environmental impacts beyond those previously identified in this Draft EIR.

Impact **Construction activities would involve use of the heavy-duty off-road equipment and large trucks that would generate diesel exhaust, compounds of which may result in unacceptable health risks to nearby sensitive receptors. *This is a significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation.***

Mitigation

- 4.3- 2 Prior to the issuance of any grading permits, a diesel risk reduction plan (DRRP) shall be developed in consultation with the MBUAPCD submitted to the Monterey County Planning Department (MCPD). The DRRP shall demonstrate that adverse health effects are reduced to an acceptable level (i.e., below MBUAPCD thresholds) through the measures below or others to the satisfaction of the MCPD. The DRRP shall be implemented at the site throughout the

construction period, during which diesel-fueled vehicles and equipment are utilized. MCPD shall monitor the implementation of the DRRP by conducting site inspections on a weekly basis throughout the construction period, during which diesel-fueled vehicles and equipment are utilized. Contractors shall maintain all records of purchases and maintenance of diesel oxidation catalysts, diesel particulate matter filters, and any other emission control measures implemented. MBUAPCD shall have the right to inspect the records and the construction and demolition equipment and vehicles throughout the construction period. The following guidelines shall be included in the DRRP:

- The contractor shall install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g., compressors).
- Diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite and staged away from residential areas.
- Properly tune and maintain equipment for low emissions.
- Stage large diesel powered equipment at least 200 feet from any active land uses (e.g., residences).
- Limit the pieces of equipment used at any one time.
- Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled loader, roller) by using gasoline-powered equipment.
- Limit the daily hours of operation for heavy-duty equipment.
- Use designated truck-haul routes to avoid sensitive receptors.

4.3-3 All of the following specifications shall be included in the DRRP referenced in mitigation measure 4.3-2 and implemented at the site subject to the inspection, monitoring, and records requirements in mitigation measure 4.3-2:

No engines greater than 750 HP shall be used without control devices or additional mitigation measures. The following equipment may be used without control devices or additional mitigation measures:

- Engines between 501 HP and 750 HP that are model years 2002 and newer;
- Engines between 251 HP and 500 HP that are model years 1996 or newer; and
- Engines between 175 HP and 250 HP that are model years 1985 or newer.

The following equipment may be used, if retrofitted with a catalyzed diesel particulate filter:

- Engines greater than 750 HP, if model year 2006 and newer; and
- All engines less than 749 HP, regardless of model year.

If construction equipment uses B99 biodiesel, the following could be utilized without control devices or additional mitigation measures:

- Engines between 501 HP and 750 HP, if model years 2002 or newer;
- Engines between 250 HP and 500 HP, if model years 1996 and newer; and
- Any engine less than 250 HP.

Alternatively, the project shall implement a combination of other emission reduction measures, if they can be demonstrated to reduce the acute and long-term cancer risk to below relevant MBUAPCD thresholds.

Operational Impacts

Regional Pollutants

The Villas de Carmelo Project proposes development of a 46-unit condominium residential neighborhood. The project's traffic analysis (Higgins, 2008) estimated that the Villas de Carmelo would generate 269 weekday vehicle trips. Emissions from these trips would affect regional air quality by contributing to possible exceedances of ambient air quality standards for ozone. Direct and indirect emissions from buildout of the proposed project were calculated using the latest available version of the Urbemis model (Urbemis 2007, ver. 9.2.4 distributed by Rimpo Associates) through www.urbemis.com and the updated model patch provided through the MBUAPCD website.

The model predicts daily and annual emissions associated with the project, including construction (as provided above), operational, and area sources of emissions. For indirect operational emissions, the model inputs include daily traffic activity associated with the various land use types, emission factors from the State's mobile emission factor model, and regional data about travel behavior, temperatures, and vehicle fleet mix. The Urbemis 2007 model predicts daily emissions of ROG, CO, NO_x, SO₂, PM₁₀, PM_{2.5}, and CO₂. As requested by the MBUAPCD in their CEQA Guidelines, emissions of ROG/VOCs, NO_x, and PM₁₀ were predicted for summer, and the on-site emissions of CO were predicted for winter. In addition, emission of ROG, NO_x, PM₁₀, and PM_{2.5} are reported for winter due to the proposed inclusion of wood burning fireplaces in each residential unit. Trip rates and trip generation for the weekday provided in the traffic study were used in the analysis since they represent the worst-case emission days. Daily emissions of the Villas de Carmelo Project are presented in **Table 4.3-7**. Model output is provided in **Appendix C**.

Table 4.3-7										
Project Operational Emissions – Summer and Winter (in pounds per day)										
Scenario	ROG		NO_x		CO	PM₁₀		PM_{2.5}		CO₂
	Summer	Winter	Summer	Winter	Winter	Summer	Winter	Summer	Winter	Winter*
Area (direct, on-site)	2.81	46.88	0.29	0.77	48.87	0.00	6.68	0.00	6.43	996
Operational (indirect)	3.00	3.35	4.42	5.46	38.81	0.27	0.27	0.18	0.18	2293
Total	5.81	50.23	4.71	6.23	87.68	0.27	6.95	0.18	6.61	3259
<i>MBUAPCD Thresholds</i>	<i>137</i>	<i>137</i>	<i>137</i>	<i>137</i>	<i>550**</i>	<i>82**</i>	<i>82**</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>
Source: URBEMIS2007 Air Emissions From Land Use Ver. 9.2.4										
* = worst-case ** = on-site only										

The MBUAPCD thresholds for CO and PM₁₀ only apply to on-site emissions of these pollutants (and include wood smoke emissions from the proposed wood burning fireplaces). *Since build-out of the proposed project would not result in emissions of CO, PM₁₀, NO_x, or VOCs that exceed MBUAPCD thresholds, the impact is considered less-than-significant.*

Local Carbon Monoxide Concentrations

Emission thresholds established for carbon monoxide apply to direct or stationary sources. Emissions of carbon monoxide (CO) emitted from traffic generated by the project are first evaluated by assessing the

impacts of project-generated traffic on existing and future traffic conditions. The MBUAPCD guidelines require CO hotspot analysis under the following project conditions:

- Intersections where the Level of Service (LOS) degrades below 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 unsignalized LOS E or F intersection decreases by 50 or more.

The highest CO concentrations typically occur during the winter months and where traffic congestion occurs. Congested intersections with high volumes of traffic could cause CO “hot spots” where localized high concentrations of CO occur. The highest CO level measured in the MBUAPCD, which is representative of more urban settings, is well below the state standard. Potential sensitive receptors of concern for CO hot spots were identified previously in this section and were considered in this analysis.

The traffic study for the proposed project evaluated operations at intersections in the area. The intersection of Carpenter Street and Highway 1 is expected to degrade from LOS D under cumulative conditions to LOS E under cumulative plus project conditions during the weekday AM peak hour. The Highway 1/Carpenter Street intersection is located ½ mile north of the project site. Sensitive receptors near this intersection include residences within ¼ mile of the intersection. Sensitive receptors near in the project vicinity are subject to continuous exposure to carbon monoxide emissions from idling cars. Carbon Monoxide emissions for the Highway 1/Carpenter Street intersection was calculated using CALINE4 (June 1989). The model inputs were derived from the traffic study conducted by Higgins and Associates prepared in 2008. The assumptions and results of the local CO concentration analysis are summarized below and included in **Appendix C**.

State standards for carbon monoxide are 20 ppm for 1-hour period and 9 ppm for the 8- hour period. The CALINE4 modeling emission factors utilized worst-case scenario, including vehicle speeds of 0 to 5 miles per hour for each leg of the intersection to reflect the most congested condition possible and, therefore, the highest potential reasonable CO emissions. For the AM peak hour period at the Highway 1/Carpenter Street intersection, the CALINE 4 modeling results calculated 4.6 ppm for the 1-hour period and 3.2 for the 8-hour period as the highest concentration to the nearest sensitive receptor, a residence located northwest of the intersection. Modeling included worst-case assumptions to develop conservatively high concentrations. The 8-hour concentrations was developed using a 0.7 persistence factor in accordance with the CO Protocol (December 1997). Modeling of CO concentrations was performed to analyze project impacts because CO impacts associated with acceptable intersection operation would not exceed state standards for either the 1-hour or 8-hour period. The proposed project would have less-than-significant impact on sensitive receptors near impacted roadways and intersections. ***As a result, the impacts related to local carbon monoxide concentrations are considered less-than-significant.***

Project Stationary Sources

The Villas de Carmelo Project includes the development of 46 residential units. With the exception of wood burning fireplaces, the Villas de Carmelo Project does not include uses with potential air pollutants sources that could adversely impact adjacent or nearby residences proposed as part of the project. Emissions of fire places are accommodated as area sources within the operational analysis above and would not create any impacts to sensitive receptors adjacent to the project site due to the proposed height of chimneys and atmospheric mixing characteristics of the local area. ***The project would not result in impacts associated with stationary source emissions.***

Construction Nuisances and Odors

Construction activities, including demolition, grading, and use of diesel construction equipment and vehicles, may result in pollutant emissions that can create nuisances and objectionable odors. The Villas de Carmel Project is located in close proximity to residences (i.e., approximately 10 feet at a minimum), such that pollutants from demolition and construction activities would potentially expose persons in adjacent residences to nuisances and odors. *Construction activities have the potential to result in a significant impact; however, this impact can be reduced to a less-than-significant level with the implementation of mitigation measures 4.3-1, 4.3-2, and 4.3-3.*

Impact **Construction activities would involve earthmoving, use of the heavy-duty off-road equipment and large trucks that would generate diesel exhaust, volatile organic compounds, and particulate matter emissions that may result in unacceptable nuisances or odors to nearby sensitive receptors. This is a significant impact that can be reduced to a less-than-significant level with implementation of mitigation measures 4.3-1, 4.3-2, and 4.3.3.**

Mitigation

Implement mitigation measures 4.3-1, 4.3-2, and 4.3-3.

Operational Nuisances and Odors

Typical sources of nuisances and objectionable odors include chemical plants, sewage treatment plants, large composting facilities, rendering plants, and other large industrial facilities that emit odorous compounds. Villas de Carmelo Project would not include any such activities and, thus, would not create objectionable odors during project operation. *The project would not create a significant operational odor impact.*

Land uses near the project site include residential uses to the south, west, north, and Highway 1 to the east. Operational nuisances are not anticipated, and these impacts would be considered less-than-significant. *The project would not generate or be subject to significant odor impacts.*

Cumulative Impacts: Regional Ozone and Consistency with the AQMP

For cumulative regional ozone impacts, the MBUAPCD recommends that the project be assessed for consistency with the 2008 Air Quality Management Plan for the North Central Coast Air Basin. This was done by requesting a formal consistency determination from the Association of Monterey Bay Area Governments (AMBAG) and MBUAPCD. In their letters dated October 16, 2008, AMBAG and MBUAPCD determined that the proposed project is consistent with the Monterey Bay Area AQMP. Specifically, the residential units were accommodated in the emission inventory for the 2007 AQMP. These determination letters are included in **Appendix C**. *The project would not result in a significant cumulative impact on regional air quality.*

Cumulative Impacts: CO Hotspots

The CO analysis was based on the long-term cumulative traffic volumes identified in the traffic study. See **Appendix C**. One intersection, Highway 1 and Carpenter Street, was warranted for CO hotspot analysis. The CO analysis assumed cumulative conditions for its worst-case analysis and found the intersection would not violate state standards for CO emissions at the Highway 1/Carpenter Street

intersection. *The CO local concentrations will remain below applicable ambient air quality standards; therefore, the project would not result in significant cumulative CO concentration impacts.*

Cumulative Impacts: Greenhouse Gas and Global Climate Change

Methodology

GHG emissions associated with the proposed project were estimated using Urbemis 2007 version 9.2.4 for construction and some operational emissions of CO₂ including indirect, vehicular, and on-site area sources. In addition, the General Reporting Protocol of the California Climate Action Registry (CCAR) was used to estimate emissions of CO₂, methane (CH₄), and nitrous oxide (N₂O) from electricity production and distribution required to serve project uses. Emissions of other GHGs from the project (and from almost all GHG emissions sources) would be low relative to emissions of CO₂, CH₄, and N₂O and would not contribute significantly to the overall generation of GHGs from the project. The following is a good faith effort at estimating possible greenhouse gas emissions from construction, transportation, heating and cooling, and electricity use.

Calculation of GHG Emissions

Urbemis 2007 v 9.2.4 was used to estimate CO₂ emissions from construction, project-generated vehicle trips, and on-site area source emissions (fossil fuel combustion and wood burning). The emissions of GHGs from electricity generation for the project were estimated using California Climate Action Registry protocol. **Table 4.3-8** documents the results of the quantification of CO₂ equivalents (CO₂e) in metric tons per year.

Table 4.3-8			
Worst-Case Operational Project Emissions of Greenhouse Gases and Carbon Dioxide Equivalents (metric tons per yr)			
	CO ₂	CH ₄	N ₂ O
Transportation	165.0	--	--
Area	375.0	--	--
Electricity Generation	132.6	0.0010	0.0006
<i>Global Warming Potential*</i>	<i>1</i>	<i>23</i>	<i>296</i>
<i>Carbon Dioxide Equivalents (CO₂e)</i>	<i>672.6</i>	<i>0.023</i>	<i>0.165</i>
Total CO₂e	672.8		
<i>Sources: Urbemis 2007 v 9.2.4 model run, December 2008, California Climate Action Registry, General Reporting Protocol, version 3, April 2008.</i>			
<i>* per the Intergovernmental Panel on Climate Change, Third Assessment Report, 2001.</i>			
<i>-- = assumed to be negligible for this analysis</i>			

Worst-case emissions of GHGs from project construction were estimated by Urbemis to be 227 tons of CO₂ during the year 2010. This converts to 206 metric tons of CO₂ per year. Negligible emissions in terms of CO₂ equivalents of methane, nitrous oxides and other greenhouse gas emissions would occur based upon a review of emission factors. Specifically, emissions of other greenhouse gases would be less than 1% of the carbon dioxide emissions on a “per gallon of fuel” basis (see <http://www.eia.doe.gov/oiaf/1605/excel/Fuel%20Emission%20Factors.xls>).

This estimate of CO₂ emissions due to project implementation/operation is likely much greater than the net new CO₂ emission that would actually occur. At the time of project buildout, overall CO₂ emissions attributable to the Villas de Carmelo Project could be substantially less than current emissions assumptions might indicate, due to the following factors:

- Although this future CO₂ emission estimate does assume certain reductions in vehicle emissions due to future vehicle models operating more efficiently, it does not take into account additional vehicle emission reductions that might take place in response to AB 1493, if mobile source emission reductions are ultimately implemented through this legislation.
- The emissions calculations described above do not take into account reductions in GHG emissions resulting from implementation of AB 32. Stationary emission sources on the project site and stationary sources that serve the project site (e.g., power plants) will be subject to emissions reductions requirements of AB 32.
- If GHG emissions reductions for vehicles are enacted, through either the requirements of AB 1493 or AB 32 or a federal regulation, CO₂ emissions from the Villas de Carmelo Project would be further reduced. If regulations proposed to comply with AB 1493 survive current legal challenges, CO₂ emissions from vehicles associated with the project could be 20% to 30% less at buildout than under current conditions. If AB 1493 is repealed, it is unclear what vehicle emissions limits might be adopted as part of AB 32.

As described above in the Setting discussion, the cumulative increase in GHG concentrations in the atmosphere has resulted in and will continue to result in increases in global average temperature and associated shifts in climatic and environmental conditions. Multiple adverse environmental effects are attributable to global climate change, such as sea level rise, worsening ambient air quality and associated public health effects, increased incidence and intensity of severe weather events (e.g., heavy rainfall, droughts), water supply quantity or quality changes, and extirpation or extinction of plant and wildlife species. Given the significant adverse environmental effects linked to global climate change induced by GHGs, the emission of GHGs is considered a significant cumulative impact. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors; therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, city, and virtually every individual on the planet. Aside from the difficulty of assessing the actual GHG emissions of project buildout, it is even more difficult to determine the significance of an individual project's contribution to global GHG emissions and associated global climate change impacts.

Based upon the above analysis, the project's worst case GHG emissions during operation and construction (672.8 and 206 metric tons CO₂e/yr, respectively) would be less than the project-specific numeric threshold of 900 metric tons CO₂e/yr (see page 4.3-19). ***Given the project's low GHG emissions compared to even the most conservatively low suggested numeric thresholds, the proposed Villas de Carmelo Project would not make a considerable contribution to the significant cumulative impact of global climate change. The project would not conflict with any proposed climate change policies in the Draft 2007 General Plan Update for the County and would be consistent with that plan and its EIR analysis. The project would not hinder or delay California's ability to meet the reduction targets contained in AB 32. For these reasons, the project would have a less-than-significant impact on global climate change.***

Impacts of Global Climate Change on the Project

Global climate change is expected to effect water resources in California overall and, in particular, areas that rely upon the Sierra Nevada snowfall and snow pack. Because this project is in an area that does not rely on this source of water, it would experience less of an impact due to this phenomenon. In addition, global climate change may influence many interconnected phenomena, which will in turn affect the rate of climate change itself.⁶ Besides effects on water supply for areas served by Sierra Nevada precipitation, the following are other global climate change issues that may significantly adversely impact the project:

- Water supplies available in surface reservoirs
- Water demand
- Surface water quality
- Groundwater quality or recharge characteristics
- Fisheries and aquatic resources
- Sea levels
- Flooding/flood control
- Sudden temperature and other climatic changes

It can be assumed that under a long-term cumulative condition, one or more of the above significant adverse impacts may occur. For this Draft EIR, a quantitative determination of which and how the above indirect effects of climate change would affect the project facilities, occupants, and visitors is not considered possible. The following conclusions can be supported by evidence based on analysis and information provided in other sections of this Draft EIR and in documents referenced above:

- Impacts related to water supply quantities and qualities would potentially impact the project; however, existing and future programs and requirements to protect water quality and quantity would be anticipated to maintain these impacts at a less-than significant level for the purposes of this Draft EIR.
- Based on the project site's topography and climate, sea level rises and flooding and the effects of increased electricity demand on peak days would not significantly impact the project, including its residents, employees, and visitors.
- The project site and users' exposure to increased public health risks due to worsening air quality is not a significant impact because the local vicinity experiences year round good air quality which rarely, if ever, exceeds ambient air quality standards established to protect public health.
- Impacts on fisheries and aquatic resources due to climate change may impact the types of foods available to all people; however, this would not create a significant impact to residents of the project due to the variety of foods available.
- Severe weather events may impact its residents, employees, and visitors, but not such that a significant public health or environmental impact can be reasonably identified.

⁶These and other related issues are described in various reference documents listed in the references section of this Draft EIR, including California Department of Water Resources (October 2008), IPCC (2008), Kiparsky M. and P.H. Gleick (2003), and Tanaka, S.K., et al (2006).

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4.4 BIOLOGICAL RESOURCES

This section describes the biological resources and setting for the proposed project. A Biological Resource Assessment (BA), a Forest Management Plan (FMP), a Spring Plant Survey Report, and an Environmentally Sensitive Habitat Areas (ESHA) Evaluation were prepared for the project site. Per County request, the Biological Resource Assessment and the Forest Management Plan submitted as part of the project application materials underwent peer reviews by DD&A and Bill Ruskin Consulting, consulting biologists and foresters for the Draft EIR. Additional information was provided for the BA and FMP in order to include suggestions from the peer reviews. The peer reviews and subsequent responses are available at the Monterey County Planning Department for review. Additional information (i.e., regulatory background) is provided in this section by DD&A. This section provides data and information presented in the following final reports and source documents included as **Appendix D**.

- Zander Associates (December 2007) Biological Resources Assessment Former Carmel Convalescent Hospital Site, Carmel, California;
- Zander Associates (July 29, 2008) Additional Information Biological Resources Assessment Carmel Convalescent Hospital Site, Carmel, California;
- Zander Associates (May 14, 2008) Spring Plant Survey Carmel Convalescent Hospital, Carmel, California;
- Forest City Consulting (August 28, 2008) Forest Management Plan for Parcels APNs 009-061-002, 009-061-003, 009-061-005;
- Zander Associates (September 14, 2008) ESHA Evaluation at Villas de Carmelo;
- Forest City Consulting (September 15, 2008) Letter: Response to Coastal Commission Comment;

Based on the data collected and reports prepared for the proposed project site, this section includes the following: 1) description of applicable laws and regulations; 2) description of existing biotic resources within the project site; 3) identification of the special status botanical and wildlife species and sensitive habitats that occur or may occur within the project site; 4) assessment of impacts to biological resources including potential impacts from construction activities; and 5) identification of avoidance and mitigation measures to reduce impacts in accordance with CEQA.

Setting

The 3.68-acre site contains three buildings, as well as a parking area and other ornamental pavement. The site's topography consists of a raised northern area gently sloping southwards. Elevation ranges from 445 feet above sea level at the southern border of the project site to 505 feet in the northern extent of the site. Storm water flows from the site drains overland to localized depressions and/or ditches adjacent to Valley Way and Highway 1. Portions of the project site that are not paved have been extensively landscaped with numerous ornamental tree, shrub, vine, and herbaceous species, many of which have been irrigated. The historic landscaping around the main building and associated buildings includes stone retaining walls, stairways, and planting beds on the steepest areas and slopes of the project site. The historic landscaping features still present around the main hospital building include the stone terracing, a fountain, a landmark oak tree, a modern concrete stairway with metal railing to the south of the main building, as well as several stone walls and stairwells around the original structures on the property.

Gardner A. Daily was officially hired by the property owners as the on site architect for the site in the 1920's, and he completed the landscaping for the project (JRP Historical Consulting 2008). The hilly topography of the hospital site slopes steeply downward from north to south around the two original clinic buildings. Stone retaining walls, stairways, and planting beds were part of the clinic landscaping in the steepest areas immediately surrounding the main building, especially the north wing. The stone terrace at the south side of the main building is located at the edge of a large embankment that was originally planted with ornamental shrubs, but has since been altered through the removal of original plants and the addition of trees, ivy, and a modern concrete stairway with a metal railing. The original site included a large lawn and strolling paths to the south of the buildings where the parcel topography sloped more gently to the south. These features were changed beginning in the late 1930s when the nurses' quarters building was constructed on the southern part of the lawn, and a new parking area was installed on the eastern part of the lawn. As the site continued to be changed to accommodate the hospital and convalescent care functions, the lawn was removed and replaced by paved asphalt parking areas (JRP Historical Consulting 2008).

Currently, site vegetation can be characterized primarily as areas of mixed Monterey pine and coast live oak woodland with an understory of landscaped shrubs and groundcover. Mature pines on the site are growing in straight lines and occur at relative even spacing primarily along the eastern and southern edges of the parcel. There are also pines growing in the center of the old parking lot. The distribution and spacing of these mature pines indicates that these pines were planted at these locations and, therefore, are not considered native. This is further evidenced by aerial photos of the site presented in the Forest Management Plan (**Appendix D**). Many of the onsite mature Monterey pines are in decline and have serious defects (i.e., beetle infestation, pitch canker, declining crowns, poor stem taper, pronounced leans). In addition, English ivy (*Hedera helix*) is present throughout portions of the site and is severely impacting many of the onsite oaks. For a more thorough discussion of onsite conditions, please refer to the "Biological Communities" portion of this section.

The project site is visible from multiple viewpoints on Highway 1 east of the project site. Additionally, the project site is visible from Valley Way south and west of the project site, from single family residences located west and north of the project site, and from the apartment complex located south of the project site.

Regulatory Environment

Federal Endangered Species Act

Provisions of the federal Endangered Species Act (ESA) of 1973 (16 USC 1532 *et seq.*, as amended) protect federally listed threatened or endangered species and their habitats from unlawful take. Listed species include those for which proposed and final rules have been published in the Federal Register by U.S. Fish and Wildlife Service (USFWS) or NOAA Fisheries (formerly known as the National Marine Fisheries Service). The ESA is administered by the USFWS and NOAA Fisheries. In general, NOAA Fisheries is responsible for the protection of ESA-listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction.

Federal Candidate species are "taxa for which USFWS has on file sufficient information on biological vulnerability and threats to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded." Federal Candidate species are not afforded formal protection, although USFWS encourages other federal agencies to give consideration to Candidate species in environmental planning. In 1996, the USFWS discontinued the Category 3 and 4 classifications for federal Candidate species. Species are

identified as Candidate species with a listing priority classification, designated as federal “species of concern,” or are no longer given any federal status.

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered. Take, as defined by ESA, is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.” In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites unless those sites are under federal jurisdiction. If there is the potential for take of a federally listed species, a Section 7 (federal agency) or Section 10 (private land owner) USFWS Incidental Take Permit may be required to authorize the “incidental take” of that species. Federal agency actions include activities that are on federal land, conducted by a federal agency, funded by a federal agency, or authorized by a federal agency (including issuance of federal permits).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. The USFWS is responsible for overseeing compliance with the MBTA.

Wetlands and Waters of the U.S.

Natural drainage channels and wetlands are considered Waters of the United States (Waters). The U.S. Army Corps of Engineers (ACOE) regulates the filling or grading of such Waters under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by Ordinary High Water (OHW) marks on the banks of the feature. Jurisdictional wetlands are delineated by the presence of hydrophytic soils, hydrology, and vegetation. Activities that involve discharge or fill into jurisdictional waters are subject to the permit requirements of the ACOE. Discharge permits are typically issued on the condition that the project proponent provides mitigation that results in no net loss of wetland function or value. In addition to individual discharge permits, the ACOE issues nationwide permits applicable to certain activities. Under the nationwide permits, discharge of fill must be minimized to the extent practicable. No discharge permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a certification (or waiver) that the proposed activity will meet state water quality standards. The RWQCB is also responsible for enforcing National Pollutant Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit.

California Endangered Species Act

The California Endangered Species Act (CESA) was enacted in 1984. The California Code of Regulations (Title 14, Section 670.5) lists animal species considered endangered or threatened by the state. Section 2090 of CESA requires state agencies to comply with endangered species protection and recovery and to promote conservation of these species. Section 2080 of the Fish and Game Code prohibits “take” of any species that the commission determines to be an endangered species or a threatened species. “Take” is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill.” It does not include habitat destruction in the definition of take. A Section 2081 Incidental Take Permit from the California Department of Fish and Game (CDFG) is required to “take” any state listed species.

Native Plant Protection Act

The California Native Plant Protection Act (NPPA) of 1977 directed the CDFG to carry out the legislature's intent to "preserve, protect, and enhance rare and endangered plants in the state." The Act prohibits importing rare and endangered plants into California, taking rare and endangered plants, and selling rare and endangered plants. According to Section 2050-2098 of the Fish and Game Code, the CESA and NPPA authorized the California Fish and Game Commission to designate endangered, threatened, and rare species and to regulate the taking of these species. Plants listed as rare under the NPPA are not protected under CESA.

California Fish and Game Code

CDFG has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1603 of the California Fish and Game Code. Activities that would disturb these drainages are regulated by CDFG via a Streambed Alteration Agreement. Lake and Streambed Alteration Agreements typically stipulate certain measures that will protect the habitat values of the hydrologic feature being impacted.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and state laws and regulations. Section 3503 of the CDFG Code prohibits the killing, possession, or destruction of bird eggs or bird nests. Section 3503.5 and 3513 prohibit the killing, possession, or destruction of all nesting birds (including raptors and passerines). Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 prohibits the take or possession of any migratory non-game birds designated under the federal MBTA. Section 3800 prohibits take of non-game birds.

The classification of "Fully Protected" was the state's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish (Section 5515), mammals (Section 4700), amphibians and reptiles (Section 5050), and birds (Section 3511). Most of the Fully Protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations. Fully Protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

CDFG also maintains a list of animal "Species of Special Concern," most of which are species whose breeding populations in California may face extirpation if current population trends continue. Although these species have no legal status, CDFG recommends considering these species during analysis of proposed project impacts to protect declining populations and avoid the need to list them as endangered in the future. The Natural Heritage Division of the CDFG administers the state Rare Species Program. CDFG maintains lists of designated endangered, threatened, and rare plant and animal species. Listed species either were designated under the NPPA or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, CDFG can afford interim protection to Candidate species while they are being reviewed by the CDFG Commission.

Other State Conservation Programs

Under provisions of Section 15380(d) of CEQA, the project lead agency and CDFG, in making a determination of significance, must treat non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFG considers plant species on List 1 or 2 of the California Native Plant Society's (CNPS) *Inventory of Rare and*

Endangered Vascular Plants of California (CNPS 2007) as qualifying for legal protection under this CEQA provision. Species on CNPS List 3 or 4 may, but generally do not, qualify for protection under this provision.

Monterey County General Plan

The Monterey County General Plan guides the County's future physical and spatial form and appearance. Numerous goals and policies of the Monterey County General Plan are intended to protect sensitive biological resources. The following "Environmentally Sensitive Habitat Area" and "Vegetation and Wildlife Habitats" resource policies are presented as related to the proposed project.

Policy 7.1.1 Development shall be carefully planned in, or adjacent to, areas containing limited or threatened plant communities and shall provide for the conservation and maintenance of the plant communities.

Policy 7.2.2 Native and native compatible species, especially drought resistant species, shall be utilized to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits.

Carmel Area Land Use Plan / Local Coastal Program

The Carmel Area Land Use Plan/Local Coastal Program provides policies for protection of environmental resources. The following "Environmentally Sensitive Habitats" and "Forestry and Soils Resources" policies are applicable to the project site and its potential environmental resources:

2.3 Environmentally Sensitive Habitats

2.3.3 As stated in the Carmel Area Land Use Plan, "the environmentally sensitive habitats of the Carmel Coastal segment are unique, limited and fragile resources of statewide significance, important to the enrichment of present and future generations of County residents- and visitors; accordingly they shall be protected, maintained and, where possible, enhanced and restored." All categories of land use, both public and private, shall be subordinate to the protection of these critical areas. Plant communities considered as sensitive are categorized as follows:

- Rare, endangered and sensitive plants
- Northern coastal prairie
- Chamise-Monterey Manzanita dwarf coastal chaparral
- Gowen cypress woodland
- Monterey cypress and pine forests
- Redwood forest

Since not all Monterey Pine Forest areas are environmentally sensitive habitat, the restrictions of these policies shall apply only where such forests are determined to be sensitive on a case by case basis.

Rare and Endangered Species are those identified as rare, endangered and/or threatened by the State Department of Fish and Game, United States Department of Interior Fish and Wildlife Service, the California Native Plant Society, IUCN list, and/or pursuant to the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora. Sensitive species are those locally rare or unique plants defined as endemic, relict, or distinct. In the Carmel Area, rare, endangered, and sensitive species include Hickman's Onion, Sandmat Manzanita, Monterey Ceanothus, Hutchinson's Delphinium,

California Dichondra, Point Lobos Eriogonum, Gardener's Yampah, Rhododendron and other species that from time to time may be added or deleted from this list.

Only small-scale development necessary to support the resource-dependent uses may be located in sensitive habitat areas if they can not feasibly be located elsewhere.

Policy 2.3.3.2 Land uses adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.

Policy 2.3.3.3 New development adjacent to environmentally sensitive habitat areas shall be allowed only at densities compatible with the protection and maintenance of the adjoining resources. New subdivisions shall be approved only where potential impacts to environmentally sensitive habitats from development of proposed parcels can be avoided.

Policy 2.3.3.5 Where private or public development is proposed in documented or expected locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. 1 - field surveys by qualified individuals or agency shall be required in order to determine precise locations of the habitat and to recommend mitigating measures to ensure its protection. This policy applies to the entire segment except the internal portions of Carmel Woods, Hatton Fields, Carmel Point (Night heron site excluded), Odello, Carmel Meadows, and Carmel Riviera. If any habitats are found on the site or within 100 feet from the site, the required survey shall document how the proposed development complies with all the applicable habitat policies.

Policy 2.3.3.7 Where development is permitted in or adjacent to environmentally sensitive habitat areas, the County, through the development review process, shall restrict the removal of indigenous vegetation and land disturbance (grading, excavation, paving, etc.) to that needed for the structural improvements themselves.

Policy 2.3.3.8 The County shall require the use of appropriate native species in proposed landscaping.

Policy 2.3.4.8 The County should work with landowners or other public agencies (such as the Coastal Conservancy), as the need arises, to protect both significant stands of Monterey pine and coast redwood forest through permanent conservation easements, deed restrictions, or, where necessary, fee acquisition.

2.5 Forestry and Soils Resources

2.5.2 The primary use of forested land in the Carmel area shall be for recreation, aesthetic enjoyment, educational, scientific, watershed, and habitat protection activities. Limited selective logging activities may be allowed provided that all natural resource protection policies of this plan and requirements of State Forest Practice Act are met. The protection and conservation of old growth redwood is a primary goal of this plan.

2.5.3. General Policies

Policy 2.5.3.2 All cutting or removal of trees shall be in keeping with the broad resource protection objectives of this plan. Specific policies, criteria, and standards of other sections of this plan shall govern both commercial and noncommercial tree removal.

Policy 2.5.3.3 Restoration of native forest resources is encouraged for public agencies and residents as a means of maintaining and enhancing the Carmel area's natural character. Removal of non-native tree species is encouraged except where such vegetation provides important wildlife habitat.

Policy 2.5.3.8 In addition to compliance with forestry and soils resources policies, all developments, forest management activities, and tree removal shall specifically conform to the LCP policies regarding water and marine resources, sensitive habitat area, and coastal visual resources.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US 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, regulations or by the California Department of Fish and Game or US 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 tree preservation policy or ordinance;
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; or
- impede the use of native wildlife nursery sites or directly harm nesting species protected under the provisions of the Migratory Bird Treaty Act.

Existing Conditions

Survey Methodology

A Zander & Associates Senior Biologist conducted a reconnaissance-level survey on September 20, 2007, to characterize the biological resources on the site. Prior to visiting the site, ZA consulted the California Natural Diversity Database (CNDDB) and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants for the Monterey 7.5-minute U.S. Geological Survey quadrangle and the surrounding quadrangles, including Soberanes Point, Mt. Carmel, Marina, and Seaside (USGS), along with internal files to compile a list of special status species known to occur in the vicinity (see "Table 1" in **Appendix D – Biological Resource Assessment**).

During the initial site visit, a Zander Associates' (ZA) Senior Biologist systematically walked the entire property to observe site characteristics with an emphasis on documenting vegetation patterns, plant species, and any habitat features with potential to support special status species on the target list. Aerial photographs were used to locate positions in the field to and record habitat features. Property boundaries were approximated based on fence alignments, project layout, and design materials provided by the applicant. As the initial site survey was done outside of the flowering season for two special status plant potentially present at the site, the Biological Resources Assessment (BA) recommended additional surveys.

ZA subsequently conducted follow-up site visits on March 18, 2008, and April 29, 2008, to survey for three special status plant species identified as potentially occurring in the project vicinity: San Francisco collinsia (*Collinsia multicolor*), Santa Cruz microseris (*Stebbinsoseris decipiens*), and Yadon's piperia (*Piperia yadonii*) (see **Appendix D**). During the March site visit, the property was walked systematically for the detection of piperia leaf pairs (if present); all vegetative species observed in the course of the surveys were recorded. While Yadon's piperia leaf pairs were observed at a reference location at Pebble Beach and elsewhere from at least March well into April, no occurrences of piperia were recorded at the Carmel Convalescent Property. Again, in late April, ZA systematically walked the entire property recording plant species with a focused search for San Francisco collinsia and Santa Cruz microseris. The search was timed for optimum blooming period of both species, but neither were detected at the site.

The ZA report also discusses the occurrence of Monterey pine (*Pinus radiata*) and coast live oak (*Quercus agrifolia*) trees on the project site. The tree assessment was based on a comparison study of several aerial photographs dated from 1949-1971. Photographs were obtained from the map room at the University of California, Santa Cruz, and were accessed on October 2, 2007.

ZA did not conduct directed surveys for any special status animal species, but rather evaluated the habitat potential of the site to support those species.

The Forest City Consulting Forest Management Plan (FMP) was created to adhere to the requirements of the County of Monterey as set forth in *Monterey County Zoning Ordinance-Title 20*. The Plan was prepared to meet the requirements of the Carmel Area Land Use Plan for obtaining a Coastal Development Permit for tree removal. The report was designed to comply with the standards of the Carmel Area Implementation Plan as set forth in section 20.146.060. Preparation of the FMP was done by Matt Horowitz of Forest City Consulting (FCC). The intent of the FMP is to assess the conditions present at the time of inspection, give a general description of the property, provide general description of the type and quality of the forested areas and forest resources on the site, discuss the potential impacts of development, and recommend measures to reduce developmental impacts on the forest resources.

All FMP references to potentially hazardous tree conditions were discovered entirely by chance during the limited tree review, as the conditions that may create tree hazards were not evaluated for any individual tree. The FMP does not evaluate factors for individual tree health. No laboratory or clinical diagnosis was performed on any pest or pathogen that may or may not be present. In addition to their own inspection of the property, FCC relied on information provided by the property developers or their representatives in the preparation of the FMP (such as, but not limited to, surveys, property boundaries, and property ownership) and must reasonably rely on the accuracy of the information provided.

As part of the peer review process for the project, DD&A's Senior Wildlife Biologist conducted a field reconnaissance/site assessment of the property on April 24, 2008. The assessment consisted of walking meandering transects of the site, concurrent with review of the draft BA and FMP for the project.

Sensitive Habitats

The project area was surveyed for sensitive habitats. Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special status wildlife habitat, and unusual or regionally restricted habitat types. Habitat types considered sensitive include those listed on the California Natural Diversity Database's working list of high priority and rare natural communities habitats (i.e., those habitats that are Rare or Endangered within the borders of California) (CDFG 2007), and those that are designated as Critical Habitat in accordance with the federal Endangered Species Act.

Special Status Species

Special status species are defined as those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS; those listed or proposed for listing as rare, threatened or endangered by the CDFG; plants occurring on list 1B of the CNPS Inventory of Rare and Endangered Vascular Plants of California (2007); and animals designated as "Species of Special Concern" by CDFG.

Biological Communities

The project site supports only one generalized habitat type, herein referred to as "Fragmented Mixed Monterey Pine and Coast Live Oak Woodland." For representative site photos, please refer to **Figures 4.4-1A** through **4.4-1C**.

Fragmented Mixed Monterey Pine and Coast Live Oak Woodland. The project site historically supported Monterey pine forest, but was cleared to create the Carmel Metabolic Clinic in the late 1920's. As is typical of the surrounding Carmel area, the site is characterized by a fragmented Monterey pine overstory intermixed with shorter-stature coast live oak and ornamental tree species. The fragmentation of the pine canopy, largely due to urbanization, has reduced the biological value of the habitat surrounding the hospital site.

While some areas of Carmel contain viable Monterey pine forest habitat that is part of a larger native stand on the Monterey Peninsula, the project site and surrounding areas in Carmel have been urbanized for many years with Monterey pines preserved or planted for their ornamental landscape character. At the project site, most of the Monterey pines occur in tree rows within the parking lot and along the perimeters of buildings and walkways.

The Biological Resources Assessment states:

...[T]hese pines are not part of a remnant native stand, but rather were planted sometime between 1954-1971. Early aerial photographs show the site transitioning from being largely absent of trees between 1949 and 1954 to having clearly defined tree rows in 1971 that can still be seen today. Also, there are some large multiple trunk coast live oak trees that occur on the slope in front of the hospital building. The 1949 aerial, as well as an early photograph of the hospital, show much smaller tree specimens in this location, indicating that the large oaks were likely planted or volunteered sometime around 1949. There are also many smaller coast live oaks that are likely the result of natural regeneration. Most other tree species on the property are either replanted ornamentals or escaped exotics.



Photo 1. Coast live oaks and understory near hospital.



Photo 2. Coast live oaks and English ivy.



Photo 3. Ivy dominated area.



Photo 4. Madrone trees and understory near hospital.

Representative Site Photos

Figure
4.4-1A



Photo 5. Mixed pine and oak roadside vegetation.



Photo 6. Parking lot and Monterey pines.



Photo 7. Typical coast live oak and understory.



Photo 8. View towards hospital.

Representative Site Photos

Figure
4.4-1B



Photo 9. Typical Monterey pines and understory.

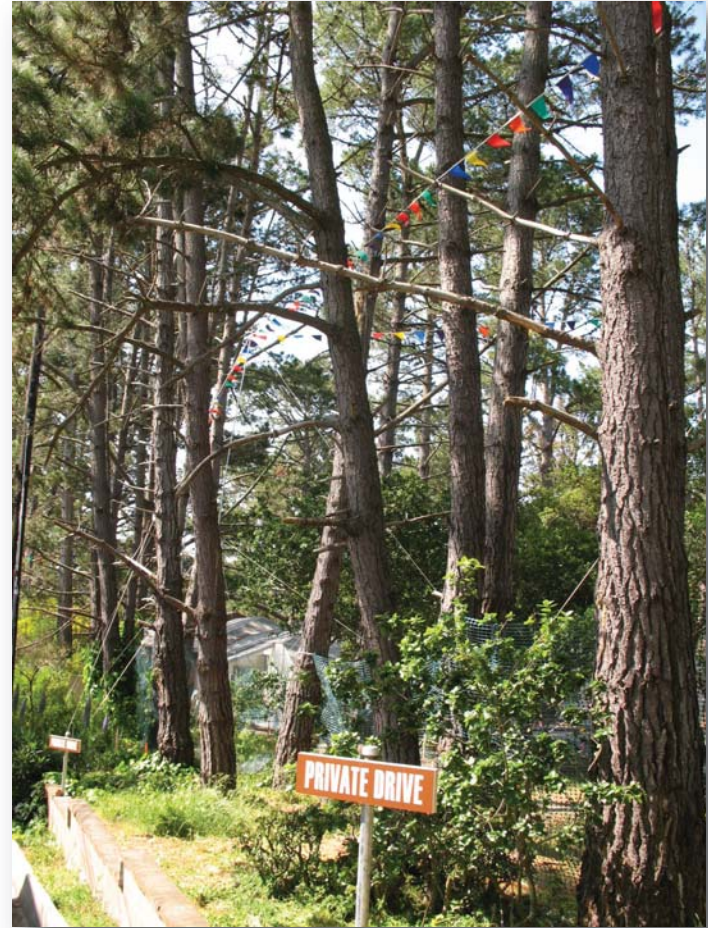


Photo 10. Monterey pines and understory.

Representative Site Photos

Figure
4.4-1C

The Forest Management Plan states:

There are mature Monterey pines and coast live oak growing on the site. These pines are growing in straight lines and occur at relative even spacing primarily along the eastern and southern edges of the parcel. There are also pines growing in the center of the old parking lot. The distribution and spacing of these mature pines indicates that these pines were planted at these locations and are therefore not considered native. This is further evidenced by aerial photos of the site.

This property is a previously developed site and the resources should be considered an urban rather than a wildland. Urban settings have different management requirements from wildland settings. One of the differing needs includes the management of hazardous trees. There is no need to remove a hazardous tree in a wildland setting if there is no target for the tree to hit when it fails. Another difference is that the wildlife in urban settings is generally adapted to living alongside of human development and can more readily adapt to changes due to construction.

Oaks at this site are of minimal habitat value due in part to the invasive species present. English ivy has compromised the living crown portion of many of the oaks and suppressed acorn production. Cavities which provide habitat to wildlife are blocked by dense ivy vines in many cases. [Oak] reproduction has been for the most part eliminated by the dense ground cover of ivy.

In addition, the oaks are not located in a contiguous stand, but scattered throughout the site.

Oaks on this site are growing on a previously developed site which minimizes the value of any habitat found here. Many portions of the parcel are covered by pavement for parking lots and walking trails. All areas that are not paved or otherwise developed have invasive species threatening the landscaping.”

... [Section 3.9 of FMP] There is heart rot present in varying degrees in most of the mature oaks. Once this heart rot grows to a certain extent it compromises the trees stability. Retained trees with heart rot should be monitored to ensure they do not become hazardous.

The living crowns of some oaks are denuded. This denuding can be attributed to the oak moth (*Phryganidia californica*). While these oak moths are messy, they seldom kill the trees. There is a cyclic nature to their population level which makes them common in some years and virtually absent in other years. No action is recommended to treat the oak moths. Most likely all the oaks will re-grow their foliage.

English ivy is severely impacting many of the oaks. In addition to competing for food and nutrients from the forest floor this ivy is climbing the oaks and choking out the oak crowns and interfering with photosynthesis. This ivy infestation can eventually kill many of the oaks on this hill if it is not removed.

There are several blackwood acacia trees (*Acacia melanoxylon*) growing on the north and west sides of the parcel. These invasive trees are also competing with the oaks and pines and should be removed.

Many of the mature Monterey pines are in decline and have serious defects. These defects include, red turpentine beetle infestation (*Dendroctonus valens*), pitch canker (*Fusarium circinatum*), declining crowns, poor stem taper, and pronounced leans. Additionally, these trees have been stressed by invasive species. These defects are creating hazardous situations as the trees and their limbs continue to fail. These infected pines can adversely impact the health and sanitation of nearby native pine trees.

Some of the pines have co-dominate stems which have areas of included bark between the stems. These co-dominate stems are prone to failure along the areas of included bark. Pines that are to be retained on this site will need to be monitored for health and stability. Planted pines on this site tend to have poor stem taper and less resistance to pathogens and insects than native pines do.

Almost all of the densely planted pines are proposed for removal. If these trees are removed the existing condition will be resolved.

The FMP also presents photographic evidence that coast live oaks at the project site were either planted or seeded-in over the past 70 years.

The understory on the hospital property varies, but consists primarily of ornamental shrubs and groundcover, such as English ivy, cypress hedges (*Cupressus* sp.), fountain grass (*Pennisetum* sp.), cotoneaster (*Cotoneaster franchetii*), summer snowflake (*Leucojum aestivum*), rosemary (*Rosmarinus officinalis*), and nasturtium (*Tropaeolum majus*), to name a few, as well as invasive exotic species, such as French broom (*Genista monspessulana*), Himalayan blackberry (*Rubus discolor*), and kikuyu grass (*Pennisetum clandestinum*). The predominance of planted ornamental and invasive species have precluded the occurrence of a native understory. However, there are limited areas where the understory contains fewer plants and is more park-like. This primarily describes the grounds surrounding the lower residential unit, next to Valley Way. The area appears graded as there is little topsoil, and there are a few planted ornamentals as well as invasive weeds, such as ripgut brome (*Bromus diandrus*), wild oat (*Avena barbata*), and French broom.

A notable feature of the site is a natural shale outcrop that occurs at the top of the property, behind the hospital building. The shale outcrop supports little vegetation, except for a few Monterey pine, some short-stature coast live oaks, French broom, and ice plant (*Carpobrotus edulis*). The FMP presents the following analysis regarding pines supported atop the shale outcrop:

In the northwest corner of the parcel there are several pines (1785, 1786, 1789, and 1787) that appear to have seeded in naturally; none of these pines are proposed for removal. These seeded in pines are growing on a rock ledge that would be very difficult to plant pines on. These pines for the most part have smaller diameters (1785= 11 inches Designated Breast Height (DBH), 1786= 16 and 12 inches DBH, 1789= 7 inches DBH, and 1787= 22 inches DBH) than most of the planted pines in the existing parking lot. Pines 1859 and 1872 are growing south of the rock ledge in an area that was extensively landscaped. Their diameters (1859= 29 inches DBH and 1872= 26 inches DBH) suggest that they were planted at the same time as the other similarly sized planted pines growing in the existing parking lot.

Mixed Monterey pine/coast live oak woodland can provide habitat for a variety of wildlife. Common animal species of the urban mixed Monterey pine and coast live oak woodland habitat type include western gray squirrel (*Sciurus griseus*), black-tailed deer (*Odocoileus hemionus*), California quail (*Lophortyx californicus*), arboreal salamander (*Aneides lugubris*), western screech owl (*Otus kennicottii*),

scrub jay (*Aphelocoma coerulescens*), and Virginia opossum (*Didelphis virginianus*). Many bird species make their homes in Monterey pine and oak trees. Acorns are a valuable food source for many animals, and understory duff and debris can provide forage, cover, and microclimates suitable for wildlife. However, the fragmented nature of pine/oak canopy on the site and in the general area, the lack of a viable native understory, and the urban surroundings do not foster the development of a rich and diverse native fauna. While the trees on the site may provide suitable nesting sites and cover for birds, some mammals and other wildlife, the quality of wildlife habitat on the property is limited by its setting and long history of use.

Special Status Species

The biological assessment prepared by ZA developed a target list of special status plant and animals species and evaluated their potential presence to occur on the former Carmel Convalescent Hospital site (See “Table 1” in the Biological Resource Assessment). The list was developed based on a review of CNDDDB records (CDFG 2007) and the California Native Plant Society (CNPS) Electronic Inventory for the Monterey 7.5-minute USFWS quadrangle and the surrounding quadrangles, including Soberanes Point, Mt. Carmel, Marina, and Seaside (USGS). **Figure 4.4-2** presents California Natural Diversity Database (CNDDDB) occurrences in the vicinity of the proposed project site.

Special Status Plants

Forty-five (45) special status plant species have documented locations within the vicinity of the former Carmel Convalescent Hospital site. Of the 45 species, only Monterey pine is known to occur at the site. The CNDDDB includes Monterey pine as a special status plant and some Monterey pine forest as a special status habitat because Monterey pine is a CNPS List 1B species or a species that CNPS considers rare, threatened, or endangered. The CNPS listing is based on the fact that native stands of the species are found only in three distinct areas of central-coastal California: Ano Nuevo, Cambria, and on the Monterey Peninsula. However, while some areas of Carmel contain viable native Monterey pine forest habitat, the Carmel Convalescent Hospital site and the surrounding areas in Carmel have been urbanized for many years. Native stands of Monterey pine forest occurring in the vicinity of Carmel include Pescadero Canyon located along the northern boundary of the City (over ½ mile west of the Villas de Carmelo site) and Mission Trail Nature Preserve along the City’s southeastern boundary (approximately ¾ mile south of the Villas de Carmelo site). These are the only areas of remnant pine forest designated as ESHA by the City’s LUP. Neither these nor any other natural areas are connected to the site; residential neighborhoods, roads, and Highway 1 effectively separate the site from native Monterey pine trees and/or forest in the greater Carmel area (please see the Biological Resource Assessment). In addition, the distribution, sizes, and spacing of on-site mature pines indicate that these pines were planted at these locations and, therefore, are not considered native (please see the FMP).

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Figure
4.4-2

The Biological Resource Assessment states that the following special status plants have “limited potential” to occur at the site: San Francisco collinsia (*Collinsia multicolor*), Santa Cruz microseris (*Stebbinoseris decipiens*), and Yadon’s piperia (*Piperia yadonii*). No other special status plant species are anticipated at the site for the species-specific rationales provided in “Table 1” of the project BA. As several special status plant species potentially present at the site were not identifiable to species at the time of the initial site assessment by ZA (done in September), the BA recommended additional focused botanical surveys. Subsequent to preparation of the BA, focused plant surveys of the site were completed on March 18, 2008, and April 29, 2008, by ZA biologists (Spring Plant Survey Carmel Convalescent Hospital, in **Appendix D**). No special status plant species were identified at the site during the 2008 focused botanical surveys (see discussion of Monterey pine above), and none are anticipated to occur. Only those special status plant species presented in the BA as known to occur or with “limited potential to occur” at the project site are discussed below. No other special status plant species are anticipated at the project site for the species-specific rationales provided in “Table 1” of the BA. The following life history information is drawn from the CNPS online Inventory.

San Francisco collinsia. San Francisco collinsia is a CNPS List 1B species. This species occurs in closed cone coniferous forests, in coastal scrub, and serpentinite soils. San Francisco collinsia is an annual herb blooming between March-May, occurring between 30-250 meters elevation.

San Francisco collinsia was not identified at the site during appropriately timed focused surveys for this species conducted by ZA (Spring Plant Survey Carmel Convalescent Hospital, in **Appendix D**). San Francisco collinsia is not anticipated within project boundaries.

Santa Cruz microseris. Santa Cruz microseris is a CNPS List 1B species. Santa Cruz microseris is known from approximately 20 locations and is associated with broad-leaved upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland/open areas, and serpentinite soils. Microseris is an annual herb blooming April-May, occurring between 10-500 meters elevation. Santa Cruz microseris was not identified at the site during appropriately timed focused surveys for this species by ZA (Spring Plant Survey Carmel Convalescent Hospital, in **Appendix D**). Santa Cruz microseris is not anticipated within project boundaries.

Yadon’s piperia. Yadon’s piperia is a CNPS List 1B species. Yadon’s piperia is associated with coastal bluff scrub, closed cone coniferous forest, and chaparral (sandy). Yadon’s piperia is a perennial herb blooming between May-August and occurs between 10-511 meters elevation.

Yadon’s piperia “pairs” were not identified at the site during multiple appropriately timed focused surveys for this species by ZA (Spring Plant Survey Carmel Convalescent Hospital, in **Appendix D**). Yadon’s piperia is not anticipated within project boundaries.

Special Status Wildlife

Directed surveys for specific special status animal species were not conducted; however, the former convalescent hospital site was evaluated for the ability to support special status wildlife. Wildlife habitat values in the area are extremely limited, and the site is not expected to support any threatened or endangered wildlife species. However, the trees within and immediately adjacent to the site could provide potential roosting opportunities for special status bats known or suspected to occur in the area, which includes the pallid bat (*Antrozous pallidus*) and the hoary bat (*Lasiurus cinereus*), both of which are listed as California State Species of Special Concern by CDFG. Trees and shrubs on-site constitute nesting habitat for a variety of regionally occurring raptors (birds of prey) and migratory bird species, whose active nests are protected under CDFG Code (Section 3503.5) and the Migratory Bird Treaty Act (16 USC 703). Only those special status wildlife species presented in the BA as known to occur, or with

“limited potential to occur” at the site are discussed below. No other special status wildlife species are anticipated at the site for the species-specific rationales provided in “Table 1” of the BA. The following life history narratives are largely drawn from the California Wildlife Habitat Relationships Program (WHRP) maintained by CDFG with additional information provided by DD&A.

Pallid bat. The pallid bat (*Antrozous pallidus*) is a California State Species of Special Concern and is a year round resident in California. This species of bat occurs in a wide variety of habitats including grasslands, shrublands, arid desert areas, oak savanna, coastal forested areas, and coniferous forests of the mountain regions of California and forests ranging from sea level up through mixed conifer forests. Pallid bats are most common in open, dry habitats with rocky areas for roosting. Day roosts of this species include caves, crevices, mines, and occasionally in hollow trees and buildings. This species seems to prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Pallid bats make use of similar structures for night roosting and will use more open sites, such as eaves, awnings, and open areas under bridges for feeding roosts. Pallid bats feed on large insects (20 to 70 mm in length). Foraging takes place over open ground, at heights generally not greater than 7.5 feet, although prey is most often caught on the ground. Jerusalem crickets, scorpions, and beetles make up most of the diet of pallid bats in central California. Copulation occurs in the fall, October through December. Females store the sperm, and ovulation occurs in the following spring. Parturition timing is determined by local climate, and embryonic development usually takes about 9 weeks with birth occurring in May or June. Twins are the norm in northern California, but in other areas, they are known to have triplets. Maternity colonies range from 20 to 200 individual adult bats. Males roost in much smaller groupings.

On-site Monterey pine and coast live oak trees may support this species. Despite the urbanization/fragmentation of the site, pallid bats have a “limited potential to occur” at the site (Zander Associates 2008). Given the potential for this species to occur at the site, mitigation and/or avoidance measures are included in this document to determine presence/absence and to mitigate potential impacts accordingly (see Impacts and Mitigation section below).

Hoary bat. Hoary bats are a California State Species of Special Concern. Hoary bats (*Lasiurus cinereus*) have the broadest range of any North American bat, ranging from Northern Canada to South America. This bat has even managed to colonize remote islands, such as the Hawaiian Islands. The hoary bat roosts in the branches of deciduous and coniferous trees. In Oregon, the hoary bat prefers old-growth Douglas fir forests. Males are solitary and females roost with their young, but do not form maternity colonies. The hoary bat is a migratory species, and the Pacific Northwest population appears to winter in California and Mexico. Over a portion of its range, males and females occupy separate summer areas. Mating occurs in fall or winter and sperm is stored over winter. Fertilization occurs in early spring, and gestation is 80 to 90 days. One to four young are born in late May to late June. Young are capable of sustained flight at six weeks, and family groups stay together for several weeks after young are flying. With its swift flight and low frequency echolocation calls, this bat is well adapted for capturing large prey. The primary prey of the hoary bat is moths, beetles, and dragonflies. The hoary bat hunts above canopy level, in clearings, and over water. This species has been known to set up foraging territories at bright lights where insects congregate.

Mature on-site Monterey pine and coast live oak trees may support this species. Despite the urbanization/fragmentation of the site, hoary bats have a “limited potential to occur” at the site (Zander Associates 2008). Given the potential for this species to occur at the site, mitigation and/or avoidance measures are included in this document to determine presence/absence and to mitigate potential impacts accordingly.

Raptors and other nesting birds. Raptors and all other *nesting* native and migratory avian species are protected under CDFG Code and the MBTA. Several locally occurring raptor/avian species are provided

further planning consideration as special status species. Many locally occurring raptors (and other avian species) are breeding residents; nests are present throughout most of the wooded, edge, and riparian portions of the state. Forested habitats, dense stands of trees, riparian deciduous and open grasslands are used most frequently for nesting (note: specific nesting habits vary from species to species). Prey for raptor species varies and may include (but is not limited to) birds, small mammals, invertebrates, reptiles, and amphibians. Many other avian species are dependent on invertebrates for the bulk of their diet; herbivores are often seed/fruit-eaters.

Monterey pine, coast live oak, and possibly smaller ornamental trees and shrubs at the site provide nesting opportunities for a variety of raptors and other avian species. Examples of raptor species that have the potential to nest within or immediately adjacent to the project site despite marginal conditions include, but are not limited to, red-tailed hawk (*Buteo jamaicensis*) and, to a lesser extent, red-shouldered hawk (*Buteo lineatus*). Special status raptors that may occasionally utilize the project site, but are not anticipated to nest within the property, include Cooper's hawk (*Accipiter cooperii*) and sharp-shinned hawk (*Accipiter striatus*). A variety of cavity nesting species may utilize on-site habitat, including, but not limited to, western bluebird (*Sialia mexicana*), pygmy nuthatch (*Sitta pygmaea*), and a variety of woodpeckers (acorn woodpecker [*Malanerpes formicivorus*], downy woodpecker [*Picoides pubescens*], hairy woodpecker [*Picoides villosus*]). Finally, a variety of common and urban-edge adapted species may also nest on-site (e.g., chestnut backed chickadee [*Poecile rufescens*] and dark-eyed junco [*Junco hyemalis*]).

Sensitive Habitats

The former convalescent hospital site is within the coastal zone, and development of the site is subject to the policies contained within the Carmel LUP and CIP. According to Policy 2.3.3.1 of the Carmel LUP, development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be avoided in critical and sensitive habitat areas, riparian corridors, wetlands, sites of known rare and endangered species of plants and animals, rookeries and major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as critical.

To date, Monterey pine is the only potentially special status plant species subject to LUP/CIP policies known to occur on the property. Policy 20.146.040 of the CIP states: "The sensitivity of Monterey Pine habitats in the Carmel area shall be determined on a case-by-case basis through the completion of a biological/botanical report for the project. Examples of sensitive Monterey pine forest include naturally occurring groves which:

1. function as habitat for rare or endemic plant or animal species;
2. have special value for wildlife due to the presence of snags suitable for cavity-dwelling species, or, occurrence with coast live oak, or native shrub understory; or
3. have high aesthetic value due to their location within the public viewshed."

As stated previously, some remnant native stands of Monterey pine forest do indeed occur in the vicinity of Carmel, particularly in Pescadero Canyon located along the northern boundary of the City (over ½ mile west of the Villas de Carmelo site) and in the Mission Trail Nature Preserve along the City's southeastern boundary (approximately ¾ mile south of the Villas de Carmelo site). These are the only areas of remnant pine forest designated as ESHA by the City's LUP. Neither these nor any other natural areas are connected to the site; residential neighborhoods, roads, and Highway 1 effectively separate the site from native Monterey pine trees and/or forest in the greater Carmel area (**Appendices E-8 and E-9**). In addition, the distribution, sizes, and spacing of on-site mature pines indicates that these pines were planted at these locations and, therefore, are not considered native (except pines atop the shale outcrop which may have seeded in naturally [source unknown]; these trees will not be impacted or removed). As such, all trees proposed for removal are considered non-native to the site.

Impacts and Mitigations

The majority of the former convalescent hospital site has been developed with paved pathways, parking lots, and structures, and the remaining natural areas have been heavily landscaped and intensively maintained. On-site trees scheduled for removal appear to have been planted. The fragmented mix of Monterey pines and coast live oaks with ornamental tree and shrub species is typical of more residential areas of Carmel. Despite the heavily manipulated landscape of the site, there are certain protections afforded to native tree species within Monterey County. There is also limited potential for certain special status animal species to occur on the site. *Below, potential impacts to sensitive biological resources are discussed, and mitigation is presented to reduce these impacts to a less-than-significant level.*

Impacts to Vegetation

Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **The proposed project would represent temporary and permanent impacts to on-site vegetation, and will result in the removal of 3 or more Monterey pine and/or Coast live oak trees. Temporary impacts to vegetation include grubbing and grading associated with development of the site; permanent impacts include the placement of structures, roads, driveways, etc. *This is a less-than-significant impact with implementation of the following measures.***

Mitigation

- 4.4-1 A Forest Management Plan was prepared for the site according to County standards contained in Title 20.146.060; all measures presented in the FMP for the protection of on-site trees shall be implemented as conditions of the project (see sections 6.1 - 6.7 of FMP in **Appendix D**).
- 4.4-2 The project sites historic landscaping shall be retained it the maximum extent feasible. The applicant shall contract a qualified landscape architect to prepare a Replanting and Landscaping Plan for the site to be approved by Monterey County prior to issuance of a grading permit for the proposed project. The plan shall be reviewed by a qualified arborist/registered professional forester. All replanting and landscaping shall be in conformance with the design and implementation measures contained in the Carmel Area Land Use Plan and the Monterey County Coastal Implementation Plan. The landscaping plan shall utilize the native species palette presented in the FMP and/or other native species with approval by Monterey County (i.e., other species may be preferred within “historic landscaping” portions of the site). The approved plan shall also specify the specific placement of replacement oaks and pines at the ratios prescribed in mitigation measure 4.4-4 below. Seeds, seedlings, and/or relocated/transplanted Monterey pine and Coast live oak tree must be free of disease (i.e., pitch canker) and derived from native genetic stock. The plan shall include specific measures for the management and eradication of invasive/non-native species, as recommended in the FMP, and shall include care/maintenance, monitoring, duration, success criteria, and reporting requirements, and adaptive management techniques (i.e., additional replanting, extension of monitoring) in the event that success is not achieved in the first monitoring period for all proposed replanting and landscaping.
- 4.4-3 Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Protective fencing shall be placed to keep construction vehicles and personnel from impacting trees and herbaceous vegetation adjacent to work zones, but outside the work limits.

Trees and other herbaceous (shrubby) vegetation not required for removal, but directly adjacent to construction activities, shall be provided appropriate protection from impacts of construction activities. This includes fencing of herbaceous vegetation (i.e., placement of temporary fencing and/or straw bales to prevent access) and protective wood barriers for trees.

Impacts to Special Status Plant Species

Section 20.146.040 of the CIP states: “The sensitivity of Monterey Pine habitats in the Carmel area shall be determined on a case-by-case basis through the completion of a biological/botanical report for the project.” According to the FMP, the Monterey pines proposed for removal are not native to the site as evidenced by the rows, sizes, and spacing of the pines. In addition, no remnant pine forest designated as ESHA by the Carmel Area LUP is present within or immediately adjacent to the site. As such, on-site Monterey pines proposed for removal do not constitute a special status species (also see discussion of “Special Status Plants” initiating on page 4.4-15). Removal of these pines will not affect the native stands of pines.

Per the California Native Plant Society Monterey Pine Forest Policy, “Monterey Pines propagated from nursery stock of unknown origin have been widely planted in and near the native pine populations. If these introduced trees hybridize with native Monterey pines, the offspring may lack the genetic traits necessary to adapt to changing conditions.”

The removal of native trees for development is subject to the policies contained within the Carmel Area LUP and CIP. Requirements for replacement are 1:1 for each native tree 12” DBH or larger that is removed. As previously stated, on-site Monterey pines scheduled for removal have been planted and are not native to the site (FMP). On-site Coast live oaks scheduled for removal were either planted or seeded-in over the past 70 years. The FMP states: “although these trees may have been planted and therefore would not be native, we are proposing twenty-one (21) oaks and two (2) Monterey pines be replaced. Eleven (11) additional oaks will be planted to replace eleven (11) multi-stemmed oaks with a trunk/stem with a cumulative total of more than 12 inches DBH.” Please refer to Tree Impact Table (Table 4.4-1) below.

Table 4.4-1. Tree Impact Table

Species	6-11" Diameter			12-23" Diameter			24"+ Diameter			Total # Onsite	Total # Removed	Total # Saved	Total % Removed
	# Removed	# Saved	% Removed	# Removed	# Saved	% Removed	# Removed	# Saved	% Removed				
Oak	30	25	55%	21	6	78%	0	2	0%	84	51	33	44%
Pine	8	5	62%	49	7	88%	26	5	84%	100	83	17	78%
Others	14	5	74%	8	1	89%	0	0	0%	28	22	6	54%
Totals	52	35	63%	78	14	85%	26	7	28%	212	156	56	59%

As such, the implementation of the following mitigation measures would reduce impacts to special status plant species to less-than-significant levels. Implementation of this mitigation measure would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **The proposed construction of 46 new residences at the Carmel Convalescent Home site will remove 104 of 125 on-site trees >12 inches diameter at DBH (21 coast live oak, 75 Monterey pines, and eight miscellaneous species). The removal of native trees for development is subject to the policies contained within the Carmel Area LUP and CIP. Requirements for replacement are 1:1 for each native tree 12 inches DBH or larger that is removed.**

Removal of 52 of 87 on-site trees between 6-11 inches diameter at DBH (30 Coast live oak, 8 Monterey pine, and 14 “others” (horticultural species including olive, acacia, pittosporum, cedar, etc.) will further degrade the site from a wildlife habitat perspective. Although the Carmel Area LUP does not require mitigation for native tree removals less than 12 inches DBH, removal of these trees will further degrade the site from a wildlife habitat perspective. *These represent potentially significant impacts that can be reduced to a less-than-significant level with implementation of the following mitigation measures.*

Mitigation:

- 4.4-4 Each of the twenty-one (21) coast live oaks greater than twelve inches DBH proposed for removal will be replaced at a 1:1 ratio. Although most of the Monterey pines slated for removal appear to have been planted and therefore do not require mitigation, two (2) Monterey pines greater than twelve inches DBH scheduled for removal appear to have seeded in from adjacent native trees and shall be replaced at a 1:1 ratio (see FMP). In addition, 11 multi-stemmed trees (generally oaks) that have cumulative stem diameters equivalent to 12 inches DBH are proposed for removal; these trees will likewise be replaced at a 1:1 ratio (see FMP). All replacement trees shall be pitch canker free and derived from local genetic stock.

Each of the Coast live oak and Monterey pine trees at the site between 6-11 inches DBH proposed for removal shall be replaced at a 3:1 ratio. All replacement trees shall be pitch canker free and derived from local genetic stock.

Impacts to Special Status Wildlife Species

Based on the BA, the following special status wildlife species have the potential to occur within the site: pallid bat (California State Species of Special Concern), hoary bat (California State Species of Special Concern), and a variety of nesting raptors and other avian species (CDFG code and MBTA). Raptors and their nests are protected by both federal and state regulations (MBTA and CDFG Code Sections 30503 and 3503.5) that protect birds of prey and their eggs and nests. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by CDFG. Any loss of fertile raptor eggs or nesting raptors, or any activities resulting in raptor nest abandonment, will constitute a significant impact. Construction activities, such as tree removal or site grading, that disturb a nesting raptor on-site or immediately adjacent to the construction site will constitute a significant impact. *However, the implementation of the following mitigation measures would reduce impacts to special status wildlife species to a less-than-significant level.* Implementation of this mitigation measure would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **The project would require grading, excavation, tree limbing and removal, and other activities that may result in the loss or abandonment of on-site raptor nests and/or other native/migratory bird species nests. *This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation

- 4.4-5 If project activities including grading, excavation, or tree-limbing/removal will initiate during the typical avian nesting season (February 15– August 1), a qualified biologist shall conduct preconstruction nesting avian surveys no more than 14 days prior to initiation of construction

activities; surveys should be conducted in all areas that may provide suitable nesting habitat on-site or within 300 feet of proposed construction activities. If active nests are found, a suitable construction buffer shall be established by a qualified biologist, and no work shall occur within that buffer until August 1 when young are assumed fledged.

Alternatively, a qualified biologist can conduct weekly nest checks to gauge nestling/fledgling status, and construction may proceed once fledglings have dispersed from the nest provided written concurrence from CDFG. No active nest shall be impacted or removed without a depredation permit from CDFG; a depredation permit will not be issued for impacts to Fully Protected Species.

For activities that occur outside of the nesting season (generally August 2 - February 14), preconstruction surveys are not required. If construction is initiated outside of the nesting season and continues into the nesting season, preconstruction surveys are required if construction will occur in areas not previously accessed and/or disturbed (>300 feet from previous construction activities).

Implementation of this mitigation measure would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **The project would require tree limbing and removal and modification of on-site buildings that may result in direct take of special status bats and/or bat roosting habitat. Bats and their roosts are protected under CDFG code and provided planning consideration under CEQA for any special status species. *Impacts to special status bats and/or maternity roosts would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation

4.4-6 A qualified bat specialist shall conduct site surveys to characterize bat utilization of the site and potential species present (techniques utilized to be determined by the biologist). Based on the results of these initial surveys, one or more of the following shall occur.

- If it is determined that bats are not present at the site, no additional mitigation is required.
- If it is determined that bats are utilizing the site and may be impacted by the proposed project, preconstruction surveys shall be conducted no more than 30 days prior to modification, demolition, or removal of on-site buildings and/or limbing and removal of on-site trees (or any other occupied habitat). If according to the bat specialist no bats or bat sign are observed in the course of preconstruction surveys, demolition/removal of buildings and trees may proceed. If bats and/or bat sign are observed during the preconstruction surveys, the biologists shall determine if disturbance will jeopardize a maternity roost, or another type of roost (foraging, day, night).
- If a single bat and/or only adult bats are roosting, demolition or removal of the structure can proceed after the bats have been safely excluded from the roost. Exclusion techniques shall be determined by the biologist and depend on the roost type; the biologist shall prepare a mitigation plan for provision of alternative habitat to be approved by CDFG.
- If an active maternity roost is detected, avoidance is preferred. Work in the vicinity of the roost (buffer to be determined by bat specialist) shall be postponed until the qualified biologist monitoring the roost(s) determines that the young have fledged and are no longer dependent on the roost. The monitor shall ensure that all bats have left the building and or

area of disturbance prior to initiation of construction and/or demolition activities. If avoidance is not possible and a maternity roost must be disrupted, a depredation permit would be required prior to “take” of the roost.

Implementation of this mitigation measure would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **The project proposes placement of new light sources throughout the site (see Conceptual Lighting Plan in Aesthetics section). New light sources may further reduce on-site habitat quality for any wildlife utilizing the site, including special status bats and raptors. Artificial light disrupts the natural habits of many indigenous wildlife species. *The addition of artificial lights may represent a potentially significant impact to special status wildlife species that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation

4.4-7 The applicant shall minimize introduced outdoor lighting features directed away from on-site development. In general, lights should avoid on-site trees and/or mature vegetation (also see Mitigation Measure 4.1-6 in the **Aesthetics Section** of this Draft EIR).

Impacts to Sensitive Habitats

Section 20.146.040 of the CIP states, “The sensitivity of Monterey Pine habitats in the Carmel area shall be determined on a case-by-case basis through the completion of a biological/botanical report for the project.”

According to the FMP, the Monterey pines on this site were planted as evidenced by the rows and spacing and, therefore, are not native to the site. In addition, no remnant pine forest designated as ESHA by the Carmel Area LUP is present within or immediately adjacent to the site (see **Appendix D**). As such, on-site Monterey pine “forest” is not subject to regulation as a sensitive habitat (Environmentally Sensitive Habitat Area). Per the California Native Plant Society Monterey Pine Forest Policy, “Monterey Pines propagated from nursery stock of unknown origin have been widely planted in and near the native pine populations. If these introduced trees hybridize with native Monterey pines, the offspring may lack the genetic traits necessary to adapt to changing conditions.” All pines scheduled for removal are considered non-native to the site. Proposed removal of non-native pines will not affect regional stands of native pines. No other potential ESHA’s were identified at the Villas de Carmelo site. *As such, no impact to sensitive habitats will occur.*

Impacts to Wildlife Movement and Nursery Sites

The project site is located within the urban area of Carmel-by-the-Sea in Monterey County and has been developed since 1927. *Proposed new development at site is not expected to significantly interfere with the movement or migration patterns of fish or other wildlife.*

Consistency with Local Policies/Ordinances Protecting Biological Resources

The proposed project is consistent with local policies and ordinances intended to provide protection for biological resources. The proposed construction of 46 new residences at the site will remove 104 of 125 on-site trees >12 inches DBH (21 coast live oak, 75 Monterey pines, and eight “others”) and 52 of 87 on-site trees between 6 and 11 inches DBH (30 coast live oak, 8 Monterey pine, and 14 “others”). “Other”

tree species include a variety of horticultural species, such as olive (*Olea* sp.), blackwood acacia (*Acacia melanoxylem*), pittosporum (*Pittosporum* sp.), and cedar (*Cedrus* sp.). Proposed tree removal may also result in other impacts to trees including excavation, trimming, limbing, soil compaction, and/or construction activities within the dripline. The removal of native trees for development is subject to the policies contained within the Carmel Area LUP and CIP. Requirements for replacement are 1:1 for each native tree 12 inches DBH or larger that is removed. Each of the twenty-one (21) coast live oaks proposed for removal will be replaced at a 1:1 ratio. In addition, 11 multi-stemmed trees (generally oaks) that do not have any one stem or trunk equal to 12 inches DBH are proposed for removal; these trees will likewise be replaced at a 1:1 ratio (see FMP). Each of the coast live oak and Monterey pine trees at the site between 6-11 inches DBH proposed for removal shall be replaced at a 3:1 ratio. All replacement trees shall be free of disease (i.e., pitch canker) and derived from local genetic stock.

Section 20.146.040 of the CIP states, “The sensitivity of Monterey Pine habitats in the Carmel area shall be determined on a case-by-case basis through the completion of a biological/botanical report for the project.” Monterey pines slated for removal are not native to the site. Nonetheless, two (2) Monterey pines >12 inches DBH scheduled for removal shall be replaced at a 1:1 ratio (see FMP), and all Monterey pines 6-11 inches DBH scheduled for removal shall be replaced at a 3:1 ratio. With incorporation of this mitigation, impacts associated with tree removal are considered less-than-significant. Given that on-site Monterey pines proposed for removal are not native to the site (see previous discussions), a Coastal Development permit is not required for their removal.

No ESHA are present within or immediately adjacent to the project site, and no connectivity of offsite ESHA exists. As such, LUP policies regarding development within and/or adjacent to ESHA do not apply to the proposed project. Finally, a Replanting and Landscaping Plan will be prepared for the site by a qualified landscape architect. This plan will require and retaining historic landscaping to the maximum extent feasible, and replanting the site with native species (or other species as approved by Monterey County), in accordance with the GP, LUP, and CIP. ***Therefore, impacts related to biological policy consistency are considered less-than-significant.***

Conflict with the Provisions of an Adopted Habitat Conservation Plan

The project site is not located within the boundaries of an adopted Habitat Conservation Plan (HCP). ***The project does not represent a conflict with the provisions of an adopted HCP.***

Cumulative Impacts

The geographic scope for this analysis is the local vicinity of the proposed project site and the Carmel Land Use Planning Area. None of the proposed or approved projects listed in **Table 5.2-1** are adjacent to the proposed project site and there are no future projects anticipated adjacent to the project site. Adjoining properties currently support single family and medium density residential housing (privately owned) and/or paved roadways and surfaces.

Construction and maintenance activities associated with cumulative development in the region could result in the direct loss or indirect disturbance of the above described special status species or their habitats within these areas. Impacts on special status species or their habitats could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. This Draft EIR presents data and information documenting that the proposed project has the potential to affect a variety of sensitive biological resources. All significant impacts of the proposed project to sensitive biological resources would be reduced to a less-than-significant level with implementation of the mitigation measures presented this report. Construction of the proposed project, in association with probable future projects in the vicinity will require the use of construction vehicles, materials, and techniques that could

alter the biological resources of the area. With implementation of appropriate construction phase avoidance and/or minimization measures identified in this Draft EIR and typical measures required for development, the majority of construction phase impacts for the proposed project would be temporary in nature. Other future projects proposed in the region and vicinity will require (or have required) assessment under CEQA and regulatory compliance, and will likewise reduce or avoid impacts to sensitive biological resources as much as feasible. This project's impacts on sensitive species and habitat are considered less-than-cumulatively significant based on the relatively small area of impact and compliance with regulatory requirements and mitigation plans. ***Mitigation provided within this Draft EIR would ensure that the proposed project's contribution to any cumulative impacts during construction are not cumulatively considerable, and therefore, are considered to be less-than-significant.***

The project site may be utilized by special status wildlife species, including nesting raptors (and other migratory bird species) and/or roosting bats. No special status plant species are anticipated within project boundaries. The property supports "fragmented mixed Monterey pine and Coast live oak woodland" with limited habitat value given a long history of development and disturbance. No ESHA are present within or immediately adjacent to the project site, and no connectivity of offsite ESHA has been demonstrated. The Draft EIR identifies project impacts from the proposed removal of 156 of 212 on-site trees greater than 6 inches DBH will further degrade the site from a habitat perspective, and reduce the available on-site nesting and roosting opportunities for special status raptors (and other avian species) and bat species. However, given the regional availability of similar habitat, and with incorporation of the mitigations presented in this document, all of the project's significant and/or potentially significant impacts on biological resources are reduced to a less-than-significant level. Additionally, impacts to biological resources of the project vicinity are protected by existing regulatory and land use policy restrictions, including required completion of CEQA processes and the enforcement of mitigation measures described above. Therefore, long-term, project impacts restricted to the project site would not be exacerbated or worsened by other cumulative projects. ***Mitigation provided herein would ensure that this project's contribution to any cumulative impacts are not cumulatively considerable, and therefore, are considered to be less-than-significant.***

4.5 CULTURAL RESOURCES

Introduction

This cultural section evaluates the potential impacts on nearby archaeological, historical, and paleontological resources. Analysis includes an evaluation of potential direct impacts to cultural resources, such as damage to historic or culturally significant structures, changes to historic settings, or activities that could compromise or damage resources for future study, collection, or preservation. Several reports were prepared for the project site. They include the following:

- Archaeological Consulting (November 20, 2006) Preliminary Archaeological Reconnaissance of Assessor's Parcels 009-061-002, -003, & -005 in Carmel, Monterey County, California. (The report is included as **Appendix E** of this document.)
- JRP Historical Consulting, LLC (September 6, 2008) CEQA Impacts Analysis and Proposed Mitigation Report for the former Peninsula Community Hospital, Monterey County, California. (The report is included as **Appendix F** of this document.)
- JRP Historical Consulting, LLC (November 19, 2008) Letter to Denise Duffy. (The report is included as **Appendix F** of this document.)

Per Monterey County Planning Department request, the CEQA Impact Analysis and Mitigation Report submitted as part of the project application materials were peer reviewed by ICF Jones & Stokes, consulting cultural resource experts for the Draft EIR. JRP Historical Consulting, LLC revised the CEQA Impact Analysis and Mitigation Report to include suggestions from the peer review. The revised report was again subject to peer review from ICF Jones & Stokes. The final peer review determined that the revised CEQA Impact Analysis and Mitigation Report “adequately and accurately provides information in all areas required to conduct a sound CEQA impacts analysis.” Once further detail of planned activities was provided to the County, JRP Historical Consulting, LLC addressed impacts further in a letter to Denise Duffy of Denise Duffy & Associates, Inc., the EIR consultants. The letter specifically addressed the alteration of the southern elevation of the northern wing that includes the installation of the new window and door openings, the alteration and re-use of the stone masonry retaining walls, and the repair and preservation of the Valley Way entrance gate walls. As such, the following discussion and analysis incorporates information from the revised CEQA Impact Analysis and Mitigation Report. The revised CEQA Impact Analysis and Mitigation report and addendum letter can be found in **Appendix F** of this document. The complete set of documents and their respective peer reviews are available for review at the Monterey County Planning Department.

The Preliminary Archaeological Reconnaissance (hereafter referred to as “Archaeological Report”) included an archival search of existing records, a field reconnaissance of the project site, and an assessment of potential effects on cultural resources. The CEQA Impact Analysis and Mitigation Report evaluated potential historical structures on site and discussed potential impacts and mitigation for those historical resources. Several other sources were included in the literature review in regards to the regional history, prehistory, and ethnography of the area. The documents include the following:

- County of Monterey (1982) Monterey County General Plan.
- County of Monterey (1983) Carmel Area Land Use Plan. County of Monterey (1988) Coastal Implementation Plan Part 1 Coastal Zone Regulations, Regulations for Coastal Development Permits, General Provisions and Exceptions in the Coastal Zone, Title 20.
- County of Monterey (1988) Coastal Implementation Plan Part 4 Regulations for Development in the Carmel Area Land Use Plan. Chapters 20.146. 1988.

- County of Monterey (1995) Monterey County Municipal Code. Chapters 18.25 and 21.54.
- Brandman, Michael and Associates (August 18, 2006) Draft Program Environmental Impact Report: Monterey County General Plan 2006, Monterey County, CA.
- Jones & Stokes (August 2007) Carmel Valley Traffic Improvement Program Draft Subsequent Environmental Impact Report, Draft, Oakland, CA.
- U.S. Secretary of the Interior (1995) Standards for Rehabilitation for Historical Buildings, as accessed on August 13, 2008.

Setting

As defined by the National Park Service, “rehabilitation” of a site “maintains the existing integrity and character of a historic structure, but allows major additions or alterations to accommodate a compatible contemporary use” (National Park Service 2002). The *U.S. Secretary of Interior’s Standards for Rehabilitation for Historical Buildings* further defines the parameters of rehabilitation as the improvement of the “utility or function of a historic structure, through repair or alteration, to make possible a compatible contemporary use while preserving those portions or features that are important in defining its significance” (U.S. Secretary of Interior 1995). Additionally, the standards recommend the following guidelines for rehabilitation activities in historical buildings:

- A historic structure is used as it was historically or is given a new or adaptive use that maximizes the retention of historic materials, features, spaces, and spatial relationships. Adaptive use of prehistoric structures is prohibited.
- The historic character of a historic structure is retained and preserved. The replacement or removal of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a structure is avoided.
- Each historic structure is recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features from other structures, are not undertaken. Work needed to stabilize, consolidate, and conserve historic materials and features is physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
- Changes to a historic structure that have acquired historical significance in their own right are retained and preserved.
- Historic materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a historic structure are preserved.
- Deteriorated historic features are repaired rather than replaced. Where the severity of deterioration requires repair or replacement of a historic feature, the new feature matches the old in design, color, texture, and, where possible, materials. Repair or replacement of missing features is substantiated by archaeological, documentary, or physical evidence.
- Chemical or physical treatments that cause damage to historic materials are not used.
- Archaeological and landscape resources are protected and preserved in place. If such resources must be disturbed, mitigation measures are undertaken including recovery, curation, and documentation.
- Additions, alterations, or related new construction do not destroy historic materials, features, and spatial relationships that characterize the historic structure. New work is differentiated from the old and is compatible with the historic materials, features, size, scale and proportion, and massing of the structure.
- Additions and adjacent or related new construction are undertaken in such a manner that if removed in the future, the essential form and integrity of the historic structure would be unimpaired” (U.S. Secretary of Interior 1995).

The project proposes the adaptation of the main hospital building and garage/shop building for new residential uses, as discussed below. Therefore, the project would be considered a historical rehabilitation project in relation to any historical structures on site.

Archaeological Resource Investigation

The Preliminary Archaeological Reconnaissance included an archival search of existing records, a field reconnaissance of the project site, and an assessment of potential effects on cultural resources. The findings from the report are presented below.

Regional History

The Monterey Peninsula has documentation dating the first occupation of the area at around 6,000 years ago by hunter-gatherer groups who used tools, such as large projectile points, and milling stones, domed scrapers, large utilized flake stones, and tools made from bone and shell. Around 4,000 years ago, the groups began using rough, cobble mortars and pestles, more bone tools, and a limited amount of other types of tools, such as the mano, metate, darts, and atlatls (spear throwers). Food sources also shifted to a more centrally gathering style culture with emphasis on acorn crops and marine species. Around 1,500 years ago, the groups displayed a greater dependence on bow and arrows instead of spears and atlatls. Evidence has been discovered of trade and use of shells, numerous settlements, a monetary system of disc beads, and a greater community complexity (Archaeological Consulting 2006).

According to the Archaeological Report, the project area lies within the currently recognized ethnographic territory of the Costanoan (often called Ohlone) linguistic group, which ranged from the present day Golden Gate bridge in the north to just south of Carmel. The Costanoans are thought to have pushed out the previous residents of Carmel Valley, the Esselen Tribe, into the inland mountains and Big Sur. Traditionally, Costanoan habitation followed a semi-sedentary pattern, and cultural sites have been mostly found in areas adjacent to joining streams or springs. As this group relied on marine resources for food, coastal sites used for resource gathering and processing are fairly common; however, site locations have been found along the coast and as far inland as 60 miles. Indicators of a prehistoric site include the presence of suitable exposures of rock for mortars and milling activities, ecotones, availability of water and shelter, and the presence of oak groves, marshes, quarries, or game trails. Trade routes would show evidence of temporary camps or activity areas (Archaeological Consulting 2006).

Monterey Bay was discovered in 1542 by Spanish explorer Juan Cabrillo. Franciscan monks followed the explorers and established several missions in the area, including San Carlos Borromeo, San Antonio de Padua, and Nuestra Sonora de Soledad. The Monterey Presidio was established in the late 1700s along with eight large land holdings for prominent Spanish army veterans. The Presidio, the ranches, and the three missions comprise what then became Monterey County (Archaeological Consulting 2006).

Even as an agricultural center for the area, Monterey County would become a prime destination for tourism and resorts in the late 1800s. Pacific Grove was founded as a religious and cultural retreat. Pebble Beach became a stylish resort and golf destination in the early 1900s. Pebble Beach, Carmel, and Del Monte Forest then became known as artistic and literary centers, and local architecture reflected those artistic values (Jones & Stokes 2007).

Records Review

As part of the Archaeological Report preparation, Archaeological Consulting conducted a records search of the records at the Northwest Regional Information Center of the California Historical Resources Information System and reviewed existing files to identify any recorded historic or prehistoric sites in the

project area. The record search of the files at the Northwest Regional Information Center found that there is one recorded cultural resource located within one kilometer of the project parcel; however, no recorded resources are located on, adjacent to, or within 750 feet of the project site. Further, no prior archaeological reconnaissance has been conducted on the project parcels.

The records search also included a review of the California Inventory of Historical Resources, California Historical Landmarks, and the National Register of Historic Places for listed cultural resources that might be present in the project area; none were discovered. However, a search of the Harrison Memorial Library historic archives discovered the Grace Deere Velie Clinic building on the 1930 Sanborn Map.

Field Reconnaissance

The Archaeological Report also included a field reconnaissance, which was conducted on November 15, 2006. While existing structures, pavement, and overgrown landscaping limited soil visibility on parts of the project site, soil visibility was deemed adequate for the investigation. Light to medium gray sandy silt soil conditions were immediately visible, and no materials or evidence of a prehistoric resource were found during the field reconnaissance. These materials would have included dark midden soil, eroded marine shell fragments, fire-affected rock, flaked or ground stone, bone fragments, and formal artifacts. As such, the archaeological resource investigation found no evidence of a potentially significant historical or pre-historical resource at the project site.

CEQA Impact Analysis and Mitigation Report

As mentioned previously, a CEQA Impact Analysis and Mitigation Report was completed for the proposed project in regards to historical impacts to existing structures on the project site. Discussion from the report includes: 1) descriptions of the existing resources; 2) historical site context; 3) historical evaluation; and 4) an analysis of potential impacts and recommended mitigation measures. The impacts and recommended mitigation measures have been integrated into the impacts and mitigation discussion of this section. The remaining report discussions are summarized below.

Description of Existing Resources

The main structure on the project site is an 11,500 square foot former hospital building, which is set as the central focus point of the property. The rough H-shaped layout of the building includes two main “wings” running in an east-west direction with a connection “bar” running in a north-south direction. The southern wing is two stories tall and consists of a full basement. The northern wing is one story and contains a basement, as well. Even with the difference in stories, the slopes on the project site give the appearance that the northern wing is the same height as the southern wing. A storage shed to the north of the building shares a roof with the northern wing. The bar of the H-shaped building is two stories. Originally serving as the ambulance entrance and access to the hospital, the arched portico now is the enclosed first floor of the bar that connects the two main wings.

The architectural style of the building displays a Spanish Eclectic design tone, which is a combination of Spanish Revival and Monterey Styles of architecture. This style includes elements, such white plaster walls, red tiles on the roof, and arched openings. Additional elements of the Spanish Eclectic style are portrayed through the use of cantilevered balconies on the main (south) façade, smaller balconies on the east and west ends of the building, the balconettes at the second floor of the connecting corridor between the wings and west end of the building, the metal work, the tiled fountain, decorative chimney tops, and patterned concrete screens and columnar mullions of some of the windows. The exterior façade of the building displays a rustic finish created by plastering rough concrete. Red roof tiles, narrow open eaves, carved wood rafters, and tile characterize the roof structures of the building and set off the tower that rises

from the center of the south wing, another Spanish-influenced design element. Ornate molding and settings for several of the doors and windows add to the character of the architecture; however, several windows have been replaced with modern structures. Several of the second story wood frame balconies are extensively deteriorated.

The garage/shop building shares the Spanish Eclectic style with the main hospital building. The building is an L-shaped structure, the majority of which is a single story; however, there is a small, second story at the junction of the two branches with a pyramidal roof that ties in to the Spanish Eclectic style of the architecture. There is a partial basement at the southern end of the structure that housed x-ray films during hospital use. The branch of the garage/shop that lies in an east-west direction consists of four, original garage bays that have since been converted to storage. The branch of the building that lies in a north-south direction contained the shop. There is a one-room shed addition, a wooden deck, and greenhouse on the northern side of the garage/shop building.

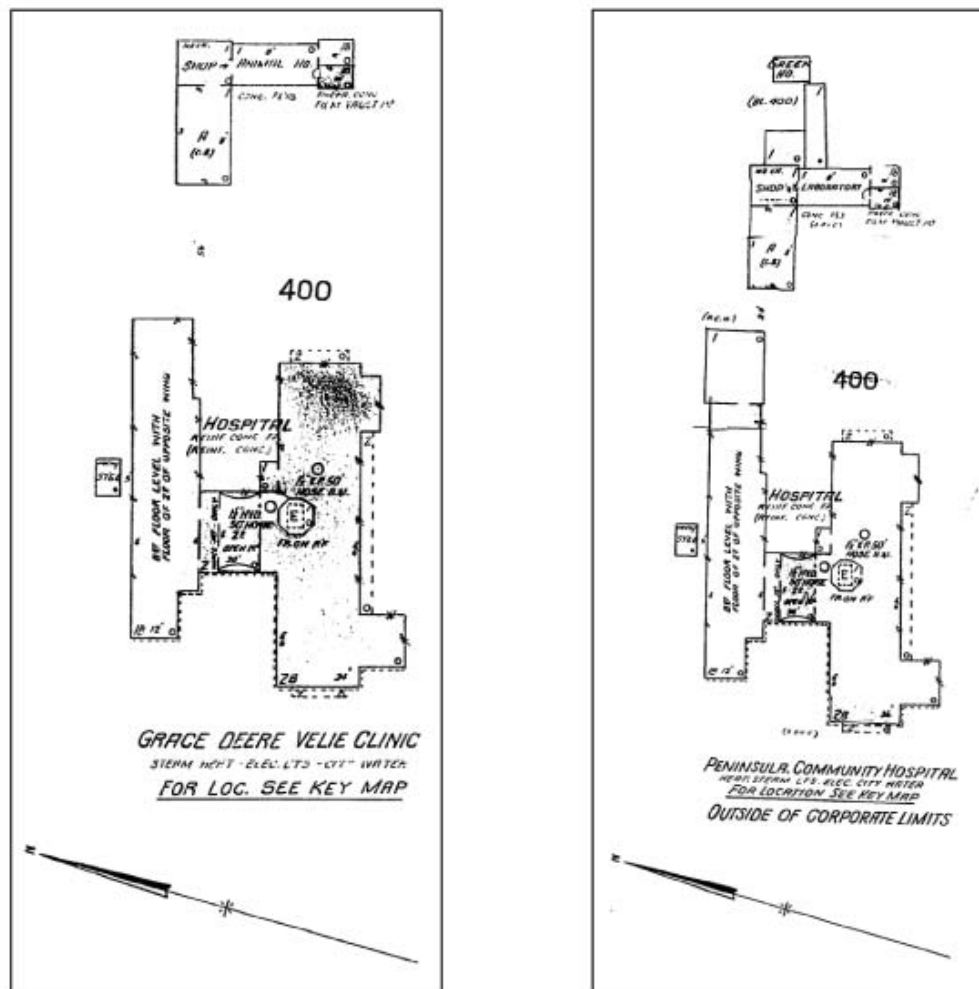
The building that housed the former nurses' quarters is situated on the southern portion of the project site and south of the main building and garage/shop building. While the building shares the stucco-finished exterior, the architectural style does not match the Spanish Eclectic design of the other previously mentioned buildings. The nurse's quarters building has also has an L-shaped construction with composition roofing shingles and narrow open eaves.

The project site has various landscaping surrounding the buildings; however, the majority of the site is asphalt pavement. The landscaping around the main building and garage/shop building include stone retaining walls, stairways, and planting beds on the steepest areas and slopes of the project site. The landscaping features still present around the main hospital building include the stone-terraced patio, a patio fountain, a landmark oak tree, a modern concrete stairway with metal railing to the south of the main building, as well as several stone walls and stairwells around the original structures on the property. These features, as well as the stone masonry entrance gates on Valley Way, are all contributing elements of the historical resource. As part of the landscaping, several oak trees and approximately 150 pine trees line the perimeter of the project site, providing a site and noise buffer. Please see **Figures 4.5-1** through **4.5-4** for photos of past and existing conditions.

Historical Site Context

In the mid 1920s, Grace Deere Velie, one of the heirs to the John Deere farm implement inheritance, was convinced by her doctor Dr. Rudolph A. Kocher to create a clinic for the scientific study of metabolic diseases and nutrition. The collaboration led to the purchase of the project site in addition to the creation of a fund to cover construction and operational costs for the clinic. Dr. Kocher enlisted the architectural skills of Louis J. Gill and Gardner A. Dailey. While Mr. Gill was involved with the project, the extent of his involvement is uncertain; however, drawings dating from 1928 for the Carmel site are located at the University of California Santa Barbara. Mr. Dailey was officially hired as the on site architect for the site, and he completed the landscaping for the project. Construction of the Grace Velie Harris Metabolic Clinic, also known as the Carmel Metabolic Clinic, was completed between 1928 and 1930, and the facility opened its doors in August of 1930. The Clinic was praised for its non-institutional appearance.

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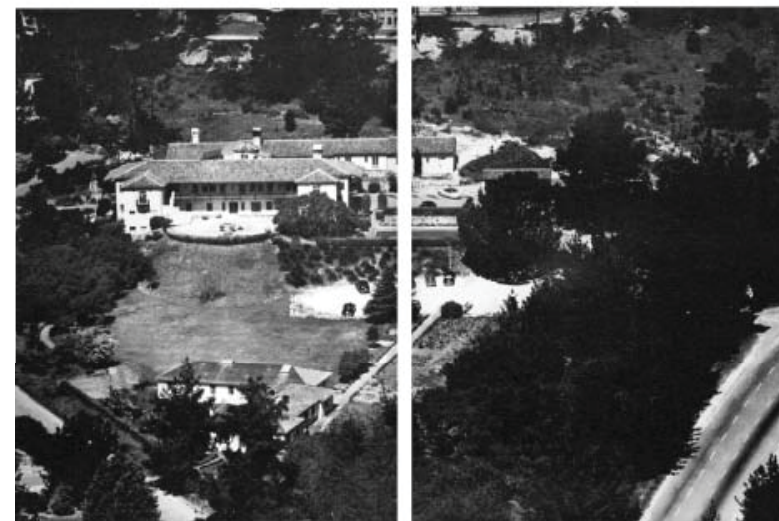


1. Building Floorplans - Left is original construction from 1930. Right is floorplan as recorded in 1962 after modifications.

Source: JRP Historical Consulting, 2008



2. Aerial view (1934) of original Clinic facilities and grounds.



3. Aerial view (1949) after the modifications to the original structures and the construction of the nurses' quarters.

Past and Current Site Photos

Figure
4.5-1



1. Main hospital building front facade and fountain (1930).



3. Main hospital building and main entrance (1930).



2. Existing main hospital building front facade and fountain (2007).



4. Existing main entrance and main hospital building (2007).

Source: JRP Historical Consulting, 2008

Past and Current Site Photos

Figure
4.5-2



1. Main hospital building ambulance archway from west side of property (1948).



3. Main hospital building south wing from east side of property (1962).



2. Existing conditions of main hospital building with sun room from west side of property.



4. Existing conditions of main hospital building south wing from east side of property.

Source: JRP Consulting, 2008

Past and Current Site Photos

Figure
4.5-3



1. Existing mechanical and elevator enclosure addition.



3. Existing replacement windows.



2. Existing sun porch infill and addition.



4. Existing garage/shop building.

Source: JRP Historical Consulting, 2008

Past and Current Site Photos

Figure
4.5-4

The Carmel Metabolic Clinic facilities originally comprised of the main hospital building, the garage/shop, stone-terraced landscaping, and driveways to the north of the site, as well as and large lawns and gardens to the south of the project site. The main hospital building contained 25 patient rooms, hydrotherapy, electrotherapy, X-ray facilities, nurses' quarters, a dining room, and a sun room. The facility also had three fireplaces and an elevator. The garage/shop building, in addition to being utilized for garage purposes, also contained housing for laboratory animals, x-ray film storage, a maintenance shop, and a groundskeeper's room. Original landscaping around the property included stone terracing from the Santa Lucia Quarries in Carmel, extensive gardens, flowering shrubs, and manicured lawns and pathways. Internal decorations included tile floors, exposed beam ceilings, decorations by William L. Koch of Carmel, and local artwork by Jo Mora, Ferdinand Burgdorff, and Paul Whitman.

The onset of the Great Depression and the facility's waning finances caused the Clinic to reorganize, and the facility opened as the original Peninsula Community Hospital in 1934. As the hospital grew, the facility expanded. In 1938, a new building to house the nurses' quarters (still in existence) opened on the southern portion of the site, which allowed for seventeen rooms for staff members. The main building converted the former nurses' quarters to additional hospital uses. The northern wing of the main hospital building was expanded eastward to accommodate a growing maternity ward, and the arched ambulance entrance was enclosed. The sun porch at the southwest corner of the northern wing was in-filled, and doors, windows, and a shed addition was added. A mechanicals shed with elevator enclosure was added to the north wall of the southern wing, adjacent to the "H" bar. Additionally, one of the chimneys was removed. In 1949, a larger parking area was added at the eastern end of the main building. Asphalt eventually replaced the lawns and pathways as needed. The Peninsula Community Hospital soon outgrew the site and moved to its current location on Highway 68 in 1962.

In 1963, new owners Ralph Drummond and Nick La Sorella renovated and reopened the project site as the Carmel Convalescent Hospital. Renovations included alterations to floor plans and internal layouts, the installation of automatic fire sprinkler systems, modernization of the kitchen, electrical alarms, intercoms, and electrical lighting. The Convalescent Hospital was in use for the next 35 years. During this period, the building on the southern portion of the property, formerly the nurses' quarters, was used as a treatment facility for alcoholism and Alzheimer's disease patients. The garage/shop building housed a nursery school for approximately 25 to 30 students from 1985 to 2005. Both the preschool and the convalescent hospital closed in 2005, and those buildings have not been in use since that time. The former nurses' quarters building has been used for support group meetings.

As previously discussed, the two architects that are credited with the Carmel Metabolic Clinic are Louis J. Gill and Gardner A. Dailey. Mr. Gill is known for his prolific architectural career in the San Diego area from the 1910s into the 1950s. His portfolio included several churches, residences, hospital, and public buildings. His approach leaned towards the Spanish Revival or Spanish Colonial styles. Prior to the Carmel Metabolic Clinic, Mr. Gill designed several healthcare facilities, including the Rees-Stealy Clinic, the San Diego Hospital Clinic, and the Scripps Metabolic Clinic. The historical search could not determine if the implemented design was entirely of Mr. Gill's creation or if it was altered by the on-site architect for the project, Gardner A. Dailey.

Gardener A. Dailey was a relatively new northern California architect when he was brought onto the Carmel Metabolic Clinic project. His prior work mainly focused around landscape architecture. His career included several residences that focused on revival styles during his early career. Several years after the Clinic's construction, Mr. Dailey converted to a Modernism architectural style for the rest of his career. The Clinic's Spanish and Monterey Revival design resonate with Mr. Dailey's design for the Allied Arts Guild complex in Palo Alto, which was completed in the same time period as the Carmel Metabolic Clinic. Mr. Dailey is known for being one of the founding designers of the Second Bay

Tradition in his modernist work, which is demonstrated throughout several residential and public projects, including plans for University of California Davis and BART buildings.

In order to be considered a master architect under the listing criteria for national, state, and local registers, the designer must be “figure of generally recognized greatness in a field...” or “... a known craftsman of consummate skill” (JRP Consulting 2008). Both Mr. Gill and Mr. Dailey are recognized, award-winning architects with acknowledged contributions to Californian architecture. As such, the report determined that both architects qualified as “master architects” for the purposes of this analysis.

Historical Evaluation

A historic evaluation was completed for the structures on the project site to determine if any of the elements are eligible for listing as historic resources on local, state, or federal registers. The significance criteria used to designate historic resources for federal listing on the National Register of Historic Places (NRHP) is the main basis for the state listing on the California Register of Historic Resources (CRHR). Further, Monterey County has additional criteria for designation of local historic resource listings on the Monterey County Historic Resources Inventory.

National Register of Historic Places. Specific criteria are used to evaluate a historic property's eligibility for the National Register of Historic Places (NRHP) as defined by the Code of Federal Regulations (CFR), Title 36, Part 60, the National Historic Preservation Act (NHPA) Section 106, and several National Park Service publications. To meet the National Register standards, the resource must be at least 50 years old, have important historic significance, and retain the historic integrity of features that conveys its significance. Integrity is determined by examining seven factors of the resource: location, design, setting, workmanship, materials, feeling, and association. Further, the resource is considered historically significant if it can meet one of the following four criteria:

- Criterion A. The resource is associated with events that have made a significant contribution to the broad patterns of our history;
- Criterion B. The resource is associated with the lives of persons significant in our pasts;
- Criterion C. The resource embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinctions; or
- Criterion D. The resource has yielded, or may be likely to yield, information important in prehistory or history.

California Register of Historical Places. Public Resources Code (PRC) §5024.1 identifies the criteria for the State Historical Resources Commission to determine that a resource is eligible for listing in the California Register of Historical Resources (CRHR). In order for a resource to be eligible for the California Register, it must be significant at the local, state, or national level under one or more of the four criteria of significance listed below. The criteria as follows are essentially the same as National Register criteria with more emphasis on California history:

- Criterion 1. The resource is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States;
- Criterion 2. The resource is associated with the lives of persons important to the nation or to California's past;

- Criterion 3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- Criterion 4. The resource has the potential to yield information important to the prehistory or history of the local area, state, or the nation (this applies primarily to archaeological sites).

Local Register. In addition to the above criteria, under CEQA Section 15064.5 a significant historic resource may include those resources identified in a local register or survey, or identified by the lead agency as significant based on substantial evidence. This could be “any object, building, structure, site, area, place, record or manuscript which a lead agency determines, based on substantial evidence in light of the whole record, to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or cultural annals of California.”

Further, Monterey County includes additional criteria for listing historic resources on local registers. The criteria are described in Chapter 18.25 “Preservation of Historic Resources,” Section 18.25.070 of the Municipal Code. A resource is eligible for listing if it meets the criteria for listing on the NRHP or CRHR or if one of the following criteria is met:

Criterion A. Historical and Cultural Significance.

1. The resource or district proposed for designation is particularly representative of a distinct historical period, type, style, region, or way of life.
2. The resource or district proposed for designation is, or contains, a type of building or buildings which was once common but is now rare.
3. The resource or district proposed for designation was connected with someone renowned.
4. The resource or district proposed for designation is connected with a business or use which was once common but is now rare.
5. The resource or district proposed for designation represents the work of a master builder, engineer, designer, artist, or architect whose talent influenced a particular architectural style or way of life.
6. The resource or district proposed for designation is the site of an important historic event or is associated with events that have made a meaningful contribution to the nation, State, or community.
7. The resource or district proposed for designation has a high potential of yielding information of archaeological interest.

Criterion B. Historical, Architectural, and Engineering Significance.

1. The resource or district proposed for designation exemplifies a particular architectural style or way of life important to the County.
2. The resource or district proposed for designation exemplifies the best remaining architectural type of a community.
3. The construction materials or engineering methods used in the resource or district proposed for designation embody elements of outstanding attention to architectural or engineering design, detail, material or craftsmanship.

Criterion C. Community and Geographic Setting.

1. The proposed resource materially benefits the historic character of the community.
2. The unique location or singular physical characteristic of the resource or district proposed for designation represents an established and familiar visual feature of the community, area, or county.

3. The district is a geographically definable area, urban or rural possessing a significant concentration or continuity of site, buildings, structures, or objects unified by past events, or aesthetically by plan or physical development.
4. The preservation of a resource or resources is essential to the integrity of the district.

Summary of Evaluation. The CEQA Impacts Analysis and Proposed Mitigation Report evaluated the resources on the site against the eligibility criteria for the NRHP, CRHR, and Monterey County local historic register criteria. The evaluation found that the original Carmel Metabolic Clinic facilities, including the main hospital building, the garage/shop building, and the landscaping immediately around these two buildings, are eligible as a single historic resource for listing on local, state, and national historical registers under a 1930 period of significance, the year in which the facility was completed.

The two original clinic buildings, the stone terracing, and immediate landscaping, while somewhat altered, meet NRHP Criterion C, CRHR Criterion 3, and Monterey Criterion B for architectural significance and the age requirement, and they still retain historical integrity. The main hospital building and the garage/shop building are part of the original clinic design and are important examples of the Spanish Revival architectural style. Further, the resource is attributed to two master architects: Louis J. Gill and Gardner A. Dailey. The main hospital building especially contains “elements of outstanding attention to architectural or engineering design, detail, material, or craftsmanship.” The two structures and the immediately surrounding landscaping maintain the qualities of their architectural styles and the non-institutionalized feel of a private resort, which was uncommon at the time.

The stone terracing, the fountain, and the landscaping immediately surrounding the main hospital building and the garage/shop building were determined to be contributing features of the original hospital facility design. The terracing and landscaping features contribute to the resort-like feel of the grounds, and similar landscaping was demonstrated in Mr. Dailey’s other designs. As such, the two buildings and the surrounding landscaping are considered a historical resource for the purposes of CEQA.

The main hospital building and garage/shop building were modified subsequent to the 1930 period of significance. The structural modifications to the main building made after 1930 include, but are not limited to, the lounge extension of the east end of the north wing, the sun room at the west end of the north wing, the mechanical/elevator enclosure on the rear of the main wing, and the modern replacement windows. The historical evaluation determined that the additions and modifications were not character-defining features of the building; therefore, they are not considered part of the historic resource.

The rest of the structures on the property were evaluated as well; however, none of the other structures met the eligibility criteria for historical significance. The small storage shed to the north of the main hospital building, while built as part of the original clinic complex, has a partially removed west wall and does not retain integrity and is not architecturally significant. The former nurses’ quarters building was not part of the original complex, nor was it designed by a master architect. These structures do not serve as historical or architectural sources of information. Additionally, the landscaping not immediately surrounding the main hospital building and the garage/shop building has been significantly altered; therefore, as it has lost historical integrity, this section of the landscaping is not eligible for historical listing. Further, the evaluation determined that the hospital facilities are not considered a character-contributing feature of Carmel, nor are they established or familiar features of the area. With the removal of the majority of the landscaping and the addition of the nurses’ quarters, the original integrity of the property and facilities diminished; therefore, the hospital complex would not be eligible as a historic district of “significant concentration of buildings.” As such, the shed, nurses’ quarters building, and the southern landscaping are not considered historical resources for the purposes of CEQA. For further discussion of the criteria that were evaluated, please see **Appendix F**.

Regulatory Framework

California Code of Regulations. The California Code of Regulations specifies certain policies and regulations required by the state government. Section 15064.5 (b) specifically pertains to historical resources. The policies that are applicable to this project are stated below.

- 15064.5 (b)(1)* Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- (2) The significance of an historical resource is materially impaired when a project:
- (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
 - (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.
- (3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.
- (4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.

Monterey County General Plan. The Historic Preservation Element and the Natural Resources Element of the General Plan provide policies for protection of cultural resources and places with proven historical significance. The following policies are applicable to the project site and its potential historic, cultural, and architectural resources:

Policy 12.1.4 All major projects (i.e., 2.5 acres or more) that are proposed for moderate sensitivity zones, including land divisions, shall require an archaeological field inspection prior to project approval.

Policy 12.1.6 Where development could adversely affect archaeological resources, reasonable mitigation procedures shall be required prior to project approval.

Policy 52.1.5 The County shall support any such tax incentive, mutual covenants, protective covenants, purchase options, preservation easements, building, fire, health and County code modifications, and any

other methods deemed mutually agreeable between County and landowner which will help to preserve historic resources.

Policy 52.1.6 The County shall, through monies acquired from grants, donations, and other revenue sources, provide funds for the restoration and enhancement of historic resources.

Monterey County Municipal Code. The Monterey County Municipal Code Title 18 has building and construction specifications for historical resource preservation (Chapter 18.25). The specification include programs, policies, and procedures required by the County in order to protect resources that are of historic, archaeological, architectural, and engineering significance. Chapter 18.25 also details the requirements of the “HR” or Historic Resource District Zoning, as further regulated by Chapter 20.54 of the Municipal Code. Chapter 18.25 also details that the criteria for designating a historic resource district include listing on the National Register of Historic Places, listing on the California Register of Historic Places, or, if certain conditions relating to the site’s historic, cultural, architectural, or engineering significance can be met, to demonstrate the unique or valued setting of the resource. Other requirements for demolition, building, construction, or alteration approval procedures for historic resources are included in this chapter to ensure that the historic resource is affected as little as possible.

Carmel Area Land Use Plan / Local Coastal Program. The Carmel Area Land Use Plan provides policies for protection of cultural resources and places with archaeological and prehistoric significance. The following policies are applicable to the project site and its potential historic, cultural, paleontological, and architectural resources:

Policy 2.8.3.1 Monterey County shall encourage the timely identification and evaluation of archaeological, historical, and paleontological resources in order that these resources are given consideration during the conceptual design phase of land-use planning or project development.

Policy 2.8.3.2 Whenever development is to occur in the coastal zone, the Archaeological Site Survey Office or other appropriate authority shall be contacted to determine whether the property has received an archaeological survey. If not and the parcel are in an area of high archaeological sensitivity, such a survey shall be conducted to determine if an archaeological site exists. The Archaeological Survey should describe the sensitivity of the site and recommend appropriate levels of development and mitigation consistent with the site’s need for protection.

Policy 2.8.3.4 When developments are proposed for parcels where archaeological or other cultural sites are located, project design shall be required which avoids or substantially minimizes impacts to such cultural sites. To this end, emphasis should be placed on preserving the entire site rather than on excavation of the resource, particularly where the site has potential religious significance.

Policy 2.8.3.5 Archaeological surveys shall be required for all new subdivisions and for all other development within close proximity of known sites. Such surveys shall be performed by qualified individuals.

Policy 2.8.4.6 When other site planning constraints do not permit avoidance of construction on archaeological or other types of cultural sites, adequate preservation measures shall be required. Mitigation shall be designed in accord with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Relevant Project Characteristics

According to the project description, the proposed project has several elements that have the potential to affect historical resources on site. The project proposes the adaptive reuse of most of the existing 11,500 square-foot former main hospital building, the adaptive reuse of the existing garage/shop, and the demolition of the 4,452 square-foot former nurses' quarters, as shown in **Figure 4.5-5, Site Demolition Plan**. Ten new residential structures are proposed for the site, the closest of which will be approximately 12-15 feet from the western end of the south side of the main hospital building and 25 feet from the eastern end of the south side of the main hospital building. The proposed residences will be of a Spanish/Mediterranean style that is complimentary to the existing main hospital building. The front façade of the main hospital building will remain unchanged; however, the hospital building will be rehabilitated and converted into nine residential units.

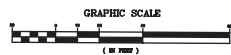
The rehabilitation of the main hospital building would also include several modifications. A total of 1,881 square feet of the building footprint would be demolished and replaced. The 216 square-foot shed to the north of the main building and the newer, 77 square-foot generator shed to the west of the main building would be demolished as well. The previously modified western end of the northern wing would have alterations to the western and southern elevations (sun porch infill and addition). The project proposes the alteration of several window and door locations throughout the northern wing of the main hospital building. On the eastern end of the northern wing, the 36-foot 1940s addition would be removed and replaced with a new 36-foot addition with a similar main floor layout, and a second level would be added to a portion of the new addition. A two-car garage would be constructed beneath the addition. The existing stonewalls at both locations are in poor condition; therefore portions would be removed and rebuilt in their present locations in a format compatible with the new uses. The original pavers would be used in the new retaining walls. The existing stone staircases would be relocated to make them more accessible and accommodate the new entrance to the eastern portion of the north wing.

The project proposes several modifications to the main building basement. A portion of the basement in the hospital building will be converted to a fitness center for the residents. An underground parking garage addition is proposed as an attachment to the existing basement. The parking garage would require the removal of the stone terracing and fountain during excavation and construction. The fountain will be temporarily removed during construction, protected, and repaired and then placed back in its original location and setting once the terraced area has been reconstructed. The existing flagstone pavers in the patio will be removed and new like-kind pavers will be installed. The old pavers will be saved and re-used in other areas of landscaping on the property.

Several modifications are proposed for the garage/shop building as well. A total of 1409 square feet would be demolished, which includes the eastern room addition to the original construction. 1,129 square feet of that area will be replaced with new construction. The building will be converted into two workforce units and one affordable unit. The door openings on the west side are proposed for modification, and a portion of the southwest corner would be removed. The green house, wood deck, and the previous additions on the east side of the building will be removed and replaced with an extension on the east side of the structure, which would require roof alterations. The shed on the south side of the building will be removed. **Figure 4.5-6 through 4.5-11** include conceptual drawings depicting the existing and proposed elevations for the main hospital building and the garage/shop building.

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- 1 REMOVE ASPHALT PAVEMENT
- 2 REMOVE ASPHALT WALKWAY
- 3 REMOVE CONCRETE SIDEWALK
- 4 REMOVE CONCRETE PATIO
- 5 REMOVE FENCE (WOOD/WIRE)
- 6 REMOVE WALL (STONE/BLOCK/MASONRY)
- 7 REMOVE STONE PATIO. RETAIN STONES.
- 8 REMOVE VALLEY GUTTER
- 9 REMOVE SIGN AND FOUNDATION
- 10 REMOVE BUILDING/STRUCTURE
- 11 REMOVE UTILITY AS NOTED
- 12 REMOVE FEATURE AS NOTED
- 13 REMOVE STAIR AS NOTED
- 14 REMOVE WOOD DECK
- 15 REMOVE SANITARY SEWER LATERAL TO MAIN IN STREET
- 16 WALL TO REMAIN
- 17 REMOVE FOUNTAIN AND SALVAGE
- 18 TREE NOT DESIGNATED FOR REMOVAL TO BE PROTECTED IN ACCORDANCE WITH THE FOREST MANAGEMENT REPORT AS PREPARED BY THE ARBORIST.
- 19 STAIRS TO BE REMOVED AND SALVAGED STAIRWAY TO BE REBUILT AFTER INSTALLATION OF PARKING GARAGE.
- 20 REMOVE STONE WALL AND SALVAGE. WALL TO BE REBUILT ELSEWHERE ON SITE.



REMOVE TREE AS NOTED



SAWCUT



Source: WWD, Inc., 2008



Site Demolition Plan

Figure
4.5-5

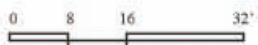
HOSPITAL BUILDING



EAST ELEVATION (EXISTING)



EAST ELEVATION (PROPOSED)



Source: The Warner Group, 2008

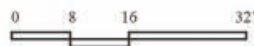
Existing and Proposed Elevations for Historic Resource

Figure
4.5-6

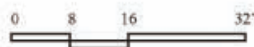
HOSPITAL BUILDING



WEST ELEVATION (EXISTING)



WEST ELEVATION (PROPOSED)

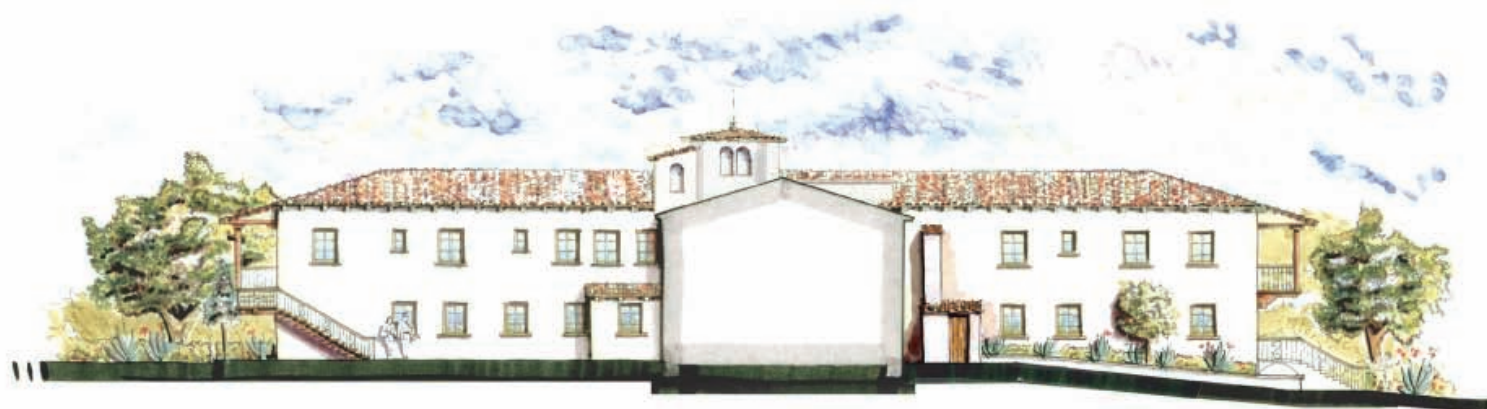


Source: The Warner Group, 2008

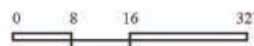
Existing and Proposed Elevations for Historic Resource

Figure
4.5-7

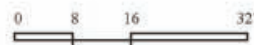
HOSPITAL BUILDING



COURTYARD ELEVATION LOOKING SOUTH (EXISTING)



COURTYARD ELEVATION LOOKING SOUTH (PROPOSED)



Source: The Warner Group, 2008

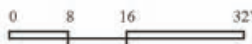
Existing and Proposed Elevations for Historic Resource

Figure
4.5-8

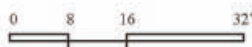
HOSPITAL BUILDING



COURTYARD ELEVATION LOOKING NORTH (EXISTING)



COURTYARD ELEVATION LOOKING NORTH (PROPOSED)



Source: The Warner Group, 2008

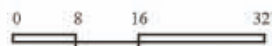
Existing and Proposed Elevations for Historic Resource

Figure
4.5-9

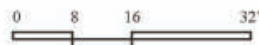
HOSPITAL BUILDING



NORTH ELEVATION (PROPOSED)



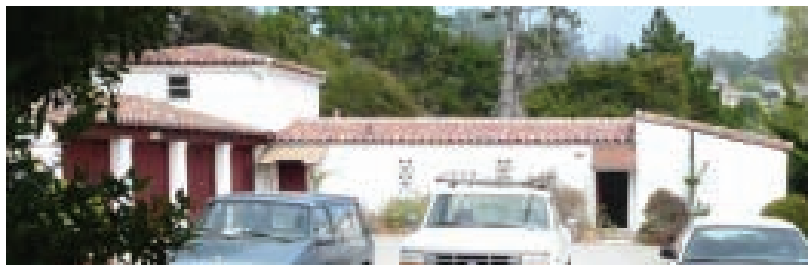
SOUTH ELEVATION (EXISTING & PROPOSED)



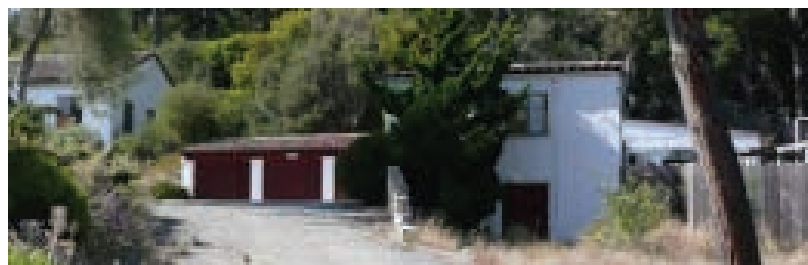
Source: The Warner Group, 2008

Existing and Proposed Elevations for Historic Resource

Figure
4.5-10



Existing Garage/Shop West Elevation



Existing Garage/Shop South Elevations



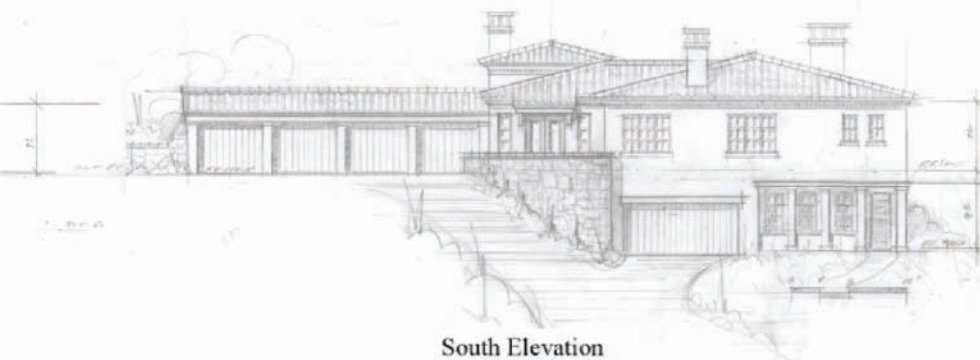
East Elevation



North Elevation



West Elevation



South Elevation

CONCEPT ELEVATIONS

Source: The Warner Group, 2008

Existing and Proposed Elevations for Historic Resource

Figure
4.5-11

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- disturb any human remains, including those interred outside of formal cemeteries.

Impacts and Mitigation

Historic Resources

As mentioned previously, the main hospital building and the garage/shop building were deemed eligible as a single historic resource for listing in the NRHP, CRHR, and the Monterey County Historic Resources Inventory and as such, are considered historical resources under CEQA. Several modifications to the exterior of the historical resource are proposed, which have the potential to be considered significant project-related impacts. Several potential project-related impacts were identified for the historical resource by the CEQA Impacts report. The impacts are organized into the following categories: 1) historical integrity; 2) modifications to past additions; 3) modifications to historic resources; 4) main hospital building modifications; and 5) landscaping modification.

Historical Integrity

The project proposes several changes to the site, including the construction of several new buildings and the rehabilitation of the original structures. As such, these activities have the potential to degrade the historical integrity of the historic resource on the project site. However, the project proposes visually compatible architectural styles and materials for new building construction. Further, standards put forth by the National Park Service and U.S. Secretary of Interior's Guidelines for Rehabilitation of Historic Buildings require building materials and construction techniques to be "physically and visually compatible" yet distinguishable from the original historic resource, thus rehabilitation and future maintenance efforts would maintain the integrity of the historical resources. Applying these standards as mitigation requirements in addition to the requirement for a Preservation and Monitoring Plan would reduce these impacts to a less-than-significant level. The project applicant/developer would prepare a Preservation and Monitoring Plan to detail what rehabilitation efforts will be taken, how they are planning to implement rehabilitation efforts, and what mitigation and monitoring measures would be needed to ensure the protection of all parts of the historic resource. This document should be prepared by a historic consultant that meets the Secretary of Interior professional qualifications. *This would be an impact that would be reduced to a less-than-significant level with mitigation incorporated.*

Modifications to Past Additions

Several additions and modifications were made to the historical buildings over the years, as mentioned previously, including the infill of the sun porch on the west end of the northern wing, the addition of a mechanical enclosure next to the “H”-bar, the 36-foot addition to the east side of the northern wing, the addition to garage/shop building’s eastern side, and the construction of the nurses’ quarters. The historical evaluation found the past modifications to the original construction, as well as sheds surrounding the main hospital building and the former nurses’ quarters, not eligible for listing as part of the historical resource. As such, impacts from the proposed modifications to these structures would not be considered significant under CEQA. *These activities would be considered less-than-significant impacts under CEQA.*

Modifications to the Historic Resource

Several changes are proposed to the original historical structures to allow for the adaptive use of the structures, as described in this section and the CEQA Impacts report, prepared by JRP Historical Consulting. Proposed modifications include the addition and/or relocation of several window and doors on both the main hospital building and the garage/shop building. No modifications are proposed to the southern, most visible façade of the main hospital building. The southwest corner of the garage/shop building is proposed for demolition as well as the addition of a two-car garage entrance on the southern side of the building. These modifications would change the character-defining features of the resources; however, mitigation requiring the project to comply with Secretary of Interior standards, prepare a Preservation and Monitoring Plan, and submit plans for all modifications to the Monterey County Historic Review Board and Planning Department will ensure that any alterations to the historic structures are implemented in a way that would retain the integrity and historic resources. *This would be an impact that would be reduced to a less-than-significant level with mitigation incorporated.*

Main Hospital Building Modifications

The project proposes other modifications to the main hospital building, including the potential damage to the main hospital building’s foundation during excavation for the basement parking garage addition. Excavation activities will be required immediately adjacent to the current buildings foundation in order to make this proposed addition. This has the potential to destabilize the foundation and structural integrity of this part of the historic resource. With the requisite Prevention and Monitoring Plan, the specific requirements needed to ensure the protection of the historical resource’s structural integrity will be incorporated into the project, thus mitigating the impacts from excavation and other construction activities. *This would be an impact that would be reduced to a less-than-significant level with mitigation incorporated.*

Landscaping Modifications

Several changes to the landscaping and terracing features are proposed. As mentioned by the historical evaluation, the landscaping and stone terracing immediately surrounding the main hospital building and garage/shop building, as well as the stone entrance way, are considered part of the historical resources of the site, as they are character-defining features. According to the historic evaluation, the Secretary of Interior standards, and the Monterey County Historic Review Board (March 6, 2008), the landscaping and terracing included as part of the historic resource would consist of the fountain and landmark oak tree immediately adjacent to the main hospital building and the stone walls, stairways, entrance, and terracing. The project proposes to replace and/or relocate stone walls and stairways both to the west and the east of the main hospital northern wing. Further, the construction of the underground parking garage attachment

would require the removal of the stone terracing and fountain, as well as extensive excavation near the landmark oak tree and the main hospital building foundation.

Significant impacts to the character-defining, landscaping features of the historic resource would result from removal and replacement of the fountain, excavation activities near the landmark tree, and the removal, relocation, and alteration of the stone walls, stairways, and terracing. However, the safety hazards posed by the current, poor condition of the stone walls, terracing, and stairwells would be reduced with the replacement of these structures. Additionally, the historic pavers not used in the reconstruction of the stone walls and stairways will be used onsite. Compliance with the Secretary of Interior's Standards and the implementation of a Preservation and Monitoring Plan would reduce impacts to the historical resource. *This is considered a significant impact under CEQA; however, the implementation of mitigation measures would reduce the impact of these modifications to a less-than-significant level.*

Excavation activities may severely impact the landmark oak tree adjacent to the main hospital building, which is one of the few natural, character-defining features of this historical resource. Even with the 15-foot buffer proposed around the tree, excavation activities have the potential to cause significant damage to root systems. Please see **Section 4.4, Biological Resources** for further discussion of impacts to this resource and mitigation requirements, the only natural, character-defining feature of the historical resource.

Impact Summary

The proposed project has the potential to significantly impact the historical resources located on the project site; however, implementation of mitigation measures would reduce the impacts to a less-than-significant level. Mitigation measures and conditions proposed include compliance with Secretary of Interior Standards; creation of a site-specific preservation plan; compliance with professional qualification standards; mitigation monitoring and reporting; consultation with interested parties; application of protective measures before, during, and after construction; repair of inadvertent damage; recordation of the property to Historic American Buildings Survey (HABS) standards; and videography of the interior and exterior of the main hospital building prior to initial project construction. In addition, the recommendations include the preparation and installation of an interpretive exhibit addressing the history of the property. Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **Development of the project and the resulting rehabilitation and renovation of the two historic resources on the project site would cause a substantial, adverse change to a historical structure eligible for listing in the California Register on the site. *This represents a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measure.***

Mitigation

4.5-1 In order to ensure continuation of historical integrity of the resources on site, rehabilitation activities shall be conducted in accordance with all applicable federal, state, and local regulations, including the *Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* and the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* published by Weeks and Grimmer in 1995 for the National Park Service. All building modifications shall comply with these standards, and modifications shall be constructed in a manner similar yet distinguishable from the original structure. All activities regarding historical architectural resources and historic preservation carried out as part of this project shall

be carried out by, or under the direct supervision of, persons meeting the Secretary of the Interior's professional qualifications standards (48 FR 44738-9) in these disciplines. Evidence of compliance shall be provided to Monterey County Planning Department upon completion of rehabilitation activities by the project applicant/developer.

- 4.5-2 Prior to the issuance of any permits, the project applicant/developer shall prepare a Preservation and Monitoring Plan (PMP) that will act as a work plan for the restoration of the historic resources on the site. In general, the PMP should identify changes to the property that could reasonably be expected to occur and detail protective actions so that the changes would not disrupt the historical integrity of the resource. The PMP would be prepared by a qualified professional, as required by Mitigation Measure 4.5-1, above. The purpose of the PMP is to provide practical guidance to the construction and restoration teams for the Villas de Carmelo project. The PMP shall contain the following features:
- A detailed history of the Carmel Convalescent Hospital;
 - A discussion of the structures' historical significance (i.e., why the building is listed in the National Register);
 - A comprehensive list of both character-defining historic features and non-historic elements of the two historic buildings and surrounding landscaping that contribute to the structures' historical significance, as well as materials to be retained, preserved, salvaged, and/or reused;
 - A detailed description of the current condition of the buildings and their integrity relative to the National Register criteria;
 - A discussion of the Secretary of the Interior's Standards for the Treatment of Historic Properties, including relevant standards as outlined by the Secretary of Interior and the Secretary's guidelines in applying these standards;
 - Specific work to take place on during the implementation of the project, based on elevation-by-elevation architectural, demolition, and construction plans and to-scale drawings, and detail how that work will be conducted in accordance with the SOI Standards;
 - Specific preservation treatments, standards, and requirements for care during all aspects of the project, including, but not limited to, treatments for the following: historic windows and doors, fountain and landscaping features, modifications to the rear wing addition, modification of the garage/shop building, and excavation and modification activities for the underground parking garage addition; and
 - Specific use and applications of the extensive technical guidance available from the NPS regarding the rehabilitation and adaptive re-use of historic buildings. Preservation, repair, and appropriate replacement activities shall be consisted with SOI Standards and other National Park Service Technical Preservation Services guidance, including the following where appropriate:
 - "Inappropriate Replacement Doors," *ITS Bulletin No. 4*, by Anne Grimmer (July 1999)
 - "New Exterior Additions to Historic Buildings, Preservation Concerns," *Preservation Brief No. 14*, by Kay D. Weeks (1986)
 - "The Preservation and Repair of Historic Clay Tile Roofs," *Preservation Brief No. 30*, by Anne Grimmer and Paul Williams (1992)
 - "The Preservation and Repair of Historic Stucco," *Preservation Brief No. 22*, by Anne Grimmer (1990)
 - "Protecting a Historic Structure during Adjacent Construction," *Preservation Technical Note No. 3*, by Chad Randl (July 2001)
 - "Repair and Thermal Upgrading of Historic Steel Windows," *Preservation Brief No. 13*, by Sharon C. Park (1984)

- “Selecting New Windows to Replace Non-Historic Windows,” *ITS Bulletin No. 23*, by Claire Kelly (October 2001)

The PMP shall be incorporated in the Mitigation Monitoring and Reporting Plan (MMRP) for the project. The Preservation Plan shall be subject to Monterey County Historic Resources Review Board and Monterey County Planning Department review and approval.

4.5-3 Prior to the start of any project work, the project applicant/developer shall ensure that the main hospital building, its surrounding terraced landscaping, and the garage/shop building is recorded and documented in accordance with the Level II recordation standards of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) program. This level of recordation shall include:

- archival reproduction of any existing historic images of the resources;
- archival reproduction of any existing maps, sketches, or drawings of the resources;
- production of measured architectural plans and drawings of the resources;
- production of large-format photographs of exterior and interior views of the resources, and views of the setting of the resources, including relationship to landscape features; and
- narrative history and description of the property based on the narrative included in the evaluation of the property (**Appendix F**), and the Monterey County survey(s) of similar properties, if any.

The original archival set of recordation documents and photographic prints shall be submitted to the Monterey County Historical Society (or its designee), and archival quality photocopies of the documentation set shall be provided to the following interested parties and local repositories: Monterey County Libraries (Carmel and Monterey branches); and UC Santa Cruz Library Special Collections Department. The project applicant/developer shall ensure that this recordation documentation is prepared prior to any construction activities or treatments and shall make the content of the document available for other mitigation measures, such as the preparation of interpretive material.

4.5-4 At least 30 days prior to commencing any work on the property, the project applicant/developer shall produce video documentation of the main hospital building with its surrounding landscaping, and the garage/shop building. This video documentation shall include footage of the exterior and interior of the building, as well as the grounds of the property. The video documentation shall be submitted to the Monterey County Historical Society (or its designee), and a copy of the video documentation shall be provided to interested parties upon request. The project applicant/developer shall make the videography available for other mitigation measures described in this section.

4.5-5 The project applicant/developer shall develop and implement protective measures to safeguard the character-defining features of the main hospital building, its surrounding landscaping, and the garage/shop building from damage by the implementation of the project. The features include, but are not limited to tile roofing, decorative chimney tops, tower, arched window and passageway openings, the original footprint of the building, the fountain, the landmark oak tree, stone stairways, terrace, and retaining walls. The original fenestration and doors shall be retained, repaired, or replaced in kind. Preservation, repair, and appropriate replacement activities shall be consistent with SOI Standards and other National Park Service Technical Preservation Services guidance, as mentioned in Mitigation Measure 4.5-2, above. Replacement of non-historic windows and doors shall be sensitive to the appearance of the original fenestration design.

- 4.5-6 The project applicant/developer shall ensure that any inadvertent damage to the character-defining features of the main hospital building, garage/shop building, and historic landscaping resulting from the rehabilitation project was repaired in accordance with guidance listed above, as well as the *Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings* (U.S. Department of the Interior, National Park Service 1992), California Historical Building Code, and the MMRP for the project. The existing condition of the building as documented by HABS recordation prior to the initiation of the relocation scenario shall be the established the baseline condition for assessing and repairing inadvertent damage. A record of all inadvertent damage and the completed repairs shall be submitted to the Monterey County Historical Society (or its designee) and included into the historic record of the resources on site.
- 4.5-7 The project applicant/developer shall coordinate with and inform interested parties, including, but not limited to the Monterey County Historical Society, Monterey County Historical Advisory Commission, Monterey County Historic Resources Review Board, and Monterey County Historical Society, regarding the status of its compliance with the mitigation measures set forth in the MMRP, as necessary.
- 4.5-8 The project applicant/developer shall consult with interested parties concerning funding and creation of permanent or temporary interpretive exhibits describing the history of the metabolic clinic and the Peninsula Community Hospital. Interested parties to be consulted include, but are not limited to, Monterey County Historical Society, Monterey County Historical Advisory Commission, Monterey County Historic Resources Review Board, and Monterey County Historical Society. If consultation results in agreement between the project applicant/developer and these parties concerning the nature and extent of the exhibits, the project applicant/developer shall produce and install the exhibits. The interpretive exhibit shall utilize the images, narrative history, drawings, video, or other material produced for the mitigation described above. The interpretive exhibits may be in the form of, but are not necessarily limited to, plaques or markers, interpretive display panels, and or printed material for dissemination to the public. If consultation does not result in agreement between the project applicant/developer and the interested parties, the project applicant/developer could seek an alternative Monterey County location for the interpretive exhibits. Appropriate alternative locations shall be determined at that time.

Archaeological and Unidentified Cultural Resources

The Monterey County Geographic Information System database lists the project site as having moderate sensitivity for archaeological resources. As such, the required archaeological report was completed for the project site. No evidence of archaeological or unidentified cultural resources was visible on the site. Further, none of the materials associated with archaeological or prehistoric cultural resources in the area (dark midden soil, bedrock mortar outcrops, marine shell fragments, bones or bone fragments, broken or fire-altered rocks, flaked or ground stone, etc.) were noted during the Archaeological Report Investigation. The Archaeological Report determined that project site does not contain surface evidence of potentially significant archaeological resources. However, construction of the project could potentially uncover buried archaeological resources or human remains during excavation and ground disturbing activities. California Health and Safety Code 7050.5c requires specific actions should human remains be discovered. *This represents a potentially significant impact; however, the mitigation provided below would ensure compliance with this code and reduce the potential impacts to archaeological and unidentified cultural resources to a less-than-significant level.* Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **Construction of the project may result in the discovery and disturbance of unknown archaeological resources and/or human remains. *This represents a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measure.***

Mitigation

4.5-9 The project applicant/developer shall monitor the construction site. If, during the course of construction, human remains or cultural, archaeological, historical, or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. The Monterey County Resource Management Agency - Planning Department and a qualified archaeologist (i.e., an archaeologist registered with the Society of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.

Paleontological Resources

No unique paleontological resources have been identified within the project area. No paleontological resources are anticipated in the project area; however, unknown resources may be buried on the project site. *Therefore, project development has the potential to result in direct or indirect impacts on unknown unique paleontological resources. With the incorporation of Mitigation Measure 4.5-9, the project-related impacts would be reduced to a less-than-significant level.* Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this EIR.

Impact **Construction of the project may result in the discovery and disturbance of unknown, unique paleontological resources. *This represents a potentially significant impact that can be reduced to a less-than-significant level with implementation of Mitigation Measure 4.5-9.***

Cumulative Impacts

The geographic scope for this analysis is the Carmel Land Use Planning Area as designated by the Monterey County General Plan. Project implementation could significantly impact cultural resources on site by disturbing buried resources on site or affecting historical resources. The project area, according to the Monterey County Geographic Information System, has been classified as having a moderate potential for archaeological resources. Survey and archaeological archival search of the site indicate that the property does not appear to contain any archaeological resources. Mitigation has been identified to reduce impacts to potential archaeological resources.

However, the site does contain historical resources eligible for listing. While there are several historical resources in the regional vicinity, including the Flanders Mansion and the Carmel Mission, there are no historical resources in the immediate vicinity to the project site. Further, the historical evaluation determined that the resources on the project site do not meet the criteria for a historical district. While natural and human activities will result in the incremental loss of a cultural resource over time, the combined effects of mitigation implementation and federal, state, and local level policy implementation and standard adherence that result from the environmental review process ensures that impacts to cultural resources are reduced. With the implementation of this project, the impacts to historical resources would be site specific. *Therefore, the project would have less-than-significant cumulative impacts on cultural resources.*

4.6 GEOLOGY, SOILS, AND MINERAL RESOURCES

Introduction

This section describes the geological and seismic setting for the proposed project and evaluates its potential to cause geological impacts, including construction-related erosion or geological hazards, such as earthquakes. A Geotechnical Assessment and a Geological Fault Investigation were prepared for the project site by O'Brien & Gere and were submitted as part of the project application materials. Per County request, the Geotechnical Assessment underwent peer reviews by Nolan, Zinn, and Associates, consulting geological specialists, and additional information was provided in order address suggestions from the peer review. The peer reviews and subsequent responses are available at the Monterey County Planning Department for review. This section summarizes the results of the following final reports and assessments included as **Appendix G**.

- O'Brien & Gere (November 2007) Geotechnical Assessment, Proposed Villas de Carmelo Valley Way and Highway 1 Carmel, California.
- O'Brien & Gere (December 2007) Geological Fault Investigation, Proposed Villas de Carmelo Valley Way and Highway 1 Carmel, California.
- O'Brien & Gere (August 29, 2008) Geologic Peer Review Response Supplemental Investigation Report.

In 2007, O'Brien & Gere performed a geological fault investigation and geotechnical assessment of the project site relative to its proximity to the mapped trace of the Hatton Canyon fault. The trace of the Hatton Canyon fault is mapped along Valley Way, just southwest of the project site. Approximately 420 linear feet of trenches were excavated in a northeasterly direction. Trenching commenced in the southwestern portion of the property, near the site property line adjacent to Valley Way. **Figure 4.6-1** illustrates the locations of the four trenches excavated in 2007. Trenching progressed northeasterly until more than 100 linear feet of Monterey formation bedrock was encountered with characteristics consistent to those in nearby outcrops and in slope cuts above the main site structure.

Setting

Regional Overview

Geologic structure in central California is primarily the result of tectonic events that have occurred during the past 30 million years. It is widely believed that the numerous faults in this area are related to movement along the boundary between the Pacific and North American tectonic plates. The relative motion between these two tectonic plates is taken up largely along the northwest-trending San Andreas Fault system, which defines the regional boundary between the two plates. Changes in sea level and tectonic uplift resulted in a complicated depositional environment that produced the complex geology of the Monterey Bay region.

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KEY TO SYMBOLS

HATTON CANYON FAULT ZONE
AND LITHOLOGIC CONTACT

ANTICLINE

STRIKE AND DIP OF BEDDING

EXPLORATORY TRENCH

KEY TO GEOLOGIC UNITS

Qctm

MARINE TERRACE, QUATERNARY AGE
MONTE VISTA COASTAL TERRACE DEPOSITS: LIGHT
ORANGE AND GRAY, FINE TO MEDIUM GRAINED ARKOSIC
SAND WITH PEBBLE-SIZED CLASTS OF ANGULAR AND
SUB-ANGULAR SHALE, LAMINATED, DENSE, DAMP,
CONTAINS THIN (1/16" TO 1/8") SEAMS CEMENT

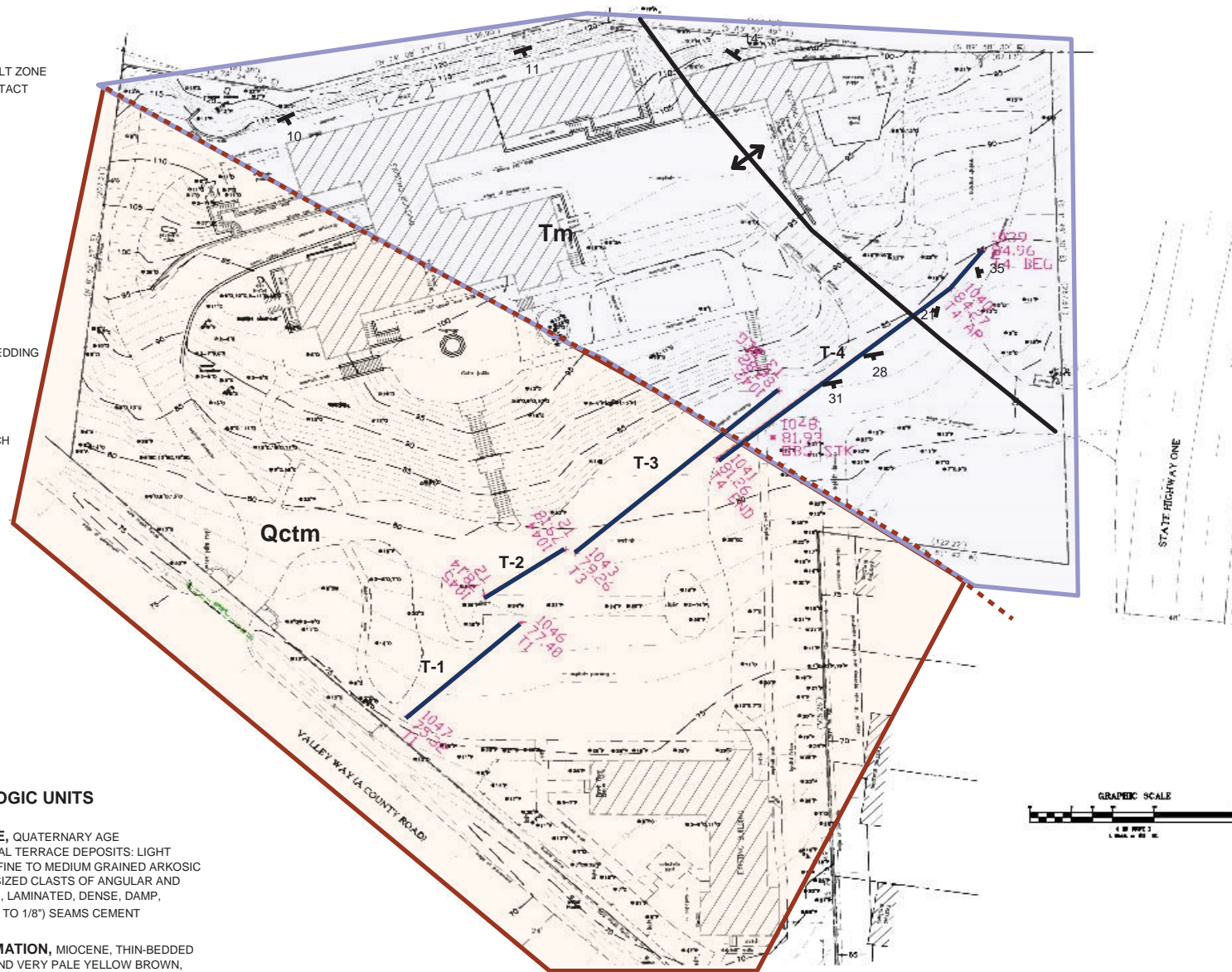
Tm

MONTEREY FORMATION, MIOCENE, THIN-BEDDED
PALE WHITE, GRAY AND VERY PALE YELLOW BROWN,
PORCELANITIC SHALE AND MASSIVE, VARIABLY
INDURATED SILTSTONE



Site Trenching

Figure
4.6-1



Source: O'Brien and Gere Engineering, Inc., 2007

The project site is located on the Monterey Peninsula, in uplands that rise from the coastal area to the Sierra de Salinas at the extreme northern extent of the Santa Lucia mountain range. The Sierra de Salinas is a fault-bounded mountain block that is separated from the main Santa Lucia Range by Carmel Valley. The Monterey Peninsula, the Sierra de Salinas, and the Santa Lucia Mountains are located in the Coast Ranges Geomorphic Province. Northwest-trending, discontinuous mountain ranges, ridges, and valleys characterize the Province. The rugged terrain of the Province developed in response to a complex regime of folding and faulting associated with the major transform boundary between the North American and Pacific tectonic plates. This boundary, defined by the San Andreas fault system, extends from Baja California in Mexico to the ocean floor off Cape Mendocino in Humboldt County, California. The Pacific plate is sliding northwestward (relative to the North American plate) along this boundary. Much of the motion between the plates occurs as right-lateral strike slip tectonics; however, there is a significant component of oblique convergence between the plates, resulting in local compression and extension of the earth's crust. Compressional forces result in the uplift of mountain ranges, such as the Santa Lucia, Sierra de Salinas, and Santa Cruz Mountains. Extensional forces operate locally and result in the opening of fault-bounded basins, such as the Salinas Valley and the central portion of Monterey Bay.

The regional geologic map for the area indicates that most of the site is underlain by the Miocene-aged Monterey formation's Aguajito shale member. The shale is described as thin bedded, laminated porcelanite with chert and thin interbeds of dark brown bentonite. In the region, the Monterey formation is folded into broad, gentle folds. However, in the vicinity of faults, the bedding is intensely folded and sheared, and it is not uncommon for beds to dip vertically. Deformation is greatest immediately adjacent to fault traces and diminishes quickly away from fault traces. Bedrock at and in the vicinity of the site is mapped as striking northwesterly and dipping (inclined) 7° to 22° southwestward. A northwest-trending anticline is mapped as skirting the northeast corner of the site. Along the anticline, bedrock attitudes are relatively flat. To the northeast of the anticline, bedding is mapped as inclined northwestward and northeastward.

Site Characteristics

The 3.68-acre, wedge-shaped site is located between Valley Way and Highway 1. The site is located, just outside the limits of the City of Carmel in an unincorporated area of Monterey County. The City of Carmel marks the western boundary of the project site. Valley Way is adjacent to the project site's southwestern margin. Highway 1 is located just beyond the site's eastern boundary. Residential communities border the site to the north and to the southeast. Site drainage discharges toward Valley Way and toward an engineered ditch adjacent to Highway 1.

Soils. Soil is generally defined as the unconsolidated mixture of mineral grains and organic material that covers the land surfaces of the earth. Soils can develop on unconsolidated sediments and weathered bedrock. Soils at the site vary based upon the topography of the site. Lower elevations contain hard silt and colluvium overlying dense sand. Dark brown clay underlies the sandy layer, under which the formation of Monterey siltstone bedrock with interbedded clay is present. Higher elevations contain the bedrock layer closer to the surface with very little overlying material. All of the materials contained at the site are very dense. Information regarding the soils is located in the project's Geological Fault Investigation Report, included in **Appendix G**.

Topography. The site's topography consists of a raised northern area gently sloping southwards. Elevation ranges from 445 feet above sea level at the southern border of the project site to 505 feet in the northern extent of the site. The portions of the project site that are not paved have been extensively landscaped with numerous ornamental tree, shrub, vine, and herbaceous species. Site vegetation can be characterized primarily as areas of mixed Monterey pine and coast live oak woodland with an understory of landscaped shrubs and groundcover.

Drainage. The project site consists of rolling hills and valleys with flat to moderate hilly slopes (0-30%) that gradually rise to the northeast. The proposed project would result in increased impervious area (paved surfaces and buildings) compared to that which exists on the project site. Buildout of the proposed project would result in a total of 41,945 square feet of new building coverage and 2,689 square feet of new paved areas. Current run-off from the project is directed to Highway 1 and Valley Way. Storm water run-off is proposed to be routed as surface flow to three proposed underground facilities.

Groundwater. Groundwater is present within all the Quaternary and Holocene age sediments at relatively shallow depths below the existing ground surface. Groundwater was discovered on the project site during original trenching.

Seismic Environment. Two major regional, Type A (historically active) faults are capable of causing significant ground shaking in the vicinity of the project site. These include the San Andreas fault (located approximately 28 miles to the northeast) and the Calaveras fault (located approximately 34 miles to the northeast). Additionally, the San Gregorio-Palo Colorado fault (located 5 miles to the southwest) may have generated at least one large earthquake during historic time and also could generate strong seismic shaking at the project site. According to probabilities for strong to major earthquakes on these nearby faults (located within the Geological Fault Investigation), the region is anticipated to experience strong seismic shaking.

In addition to historically active regional faults, the nearby Monterey Bay-Tularcitos fault (Type B) is considered capable of generating ground rupturing earthquakes at the project site. Included in the fault zone are the Navy, Hatton Canyon (located within 1/8 mile from the project site), Chupines, Seaside, Ord Terrace, and Berwick Canyon faults. While the nearby faults related to the Monterey Bay-Tularcitos fault complex are not nearly as likely to generate strong earthquakes as are the more distant Type A faults, ground rupturing earthquakes could occur on these smaller, local faults.

Events and Processes

Ground Shaking. Small to moderate earthquakes (magnitude less than 5.0 on the Richter Scale) are common in Monterey County. The most significant quakes affecting the County during the last century have included the 1906 San Francisco earthquake and the 1989 Loma Prieta earthquake. Research has shown that areas underlain by layers of unconsolidated, recent alluvium, and unconsolidated soil materials with high ground water have an increased risk of experiencing the damaging effects of groundshaking. Due to its proximity to a number of major earthquake faults, it is reasonable to assume that the project site will experience intense ground shaking at least once within its life (60 years) and that unstable hillsides will be subjected to destabilizing landslide forces.

Ground Rupture. Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Ground rupture is most likely to occur along active faults. However, the potential for ground rupture also exists along potentially active faults. Therefore, development in areas overlying fault zones, whether active or potentially active, should be avoided. According to the proposed project's geological reports, there would be no development overlying fault zones on the project site.

Ground Lurching. Ground lurching is a type of ground failure that could potentially occur in parts of the project planning area during a large earthquake. This phenomenon is characterized by irregular cracks, fissures, and fractures of lengths varying from a few inches to many feet. It is caused by the shaking, settling, and sliding of soil and can be accompanied by lateral spreading, which is horizontal movement of soil towards the open face of an embankment. As the project site is in a zone considered to have low

potential for liquefaction and lateral spreading, the ground lurching potential on the project site is also considered to be low.

Erosion. Erosion is a natural process that occurs over time and can be caused by either wind or water moving over soils. Soil erosion can become a problem when human activities accelerate erosion rates. Non-point sources, including impervious surfaces, construction activities, and road construction, can all accelerate the rate that soils are removed from hillsides. As indicated by Monterey County's Geographical Information System, the erosion potential is considered to be moderate on the project site.

Landslides. The occurrence of landslides is influenced by a number of factors, including slope angle, soil moisture content, vegetative cover, and the physical nature of the underlying strata. Landslides can be triggered by one or more specific events, including development-related construction, seismic activity, soil saturation, and fires. The primary factor in determining landslide potential is an unstable slope condition. The landslide potential on the project site is considered to be low, as indicated by Monterey County's Geographical Information System.

Lateral Spreading. Lateral spreading is a failure within weaker soil material that causes the soil mass to move towards a free face or down a gentle slope. Liquefaction, lateral spreading, and differential compaction tend to occur in loose, unconsolidated, non-cohesive soils with shallow groundwater. As indicated in the project's geological reports, soils on the project site are not considered to be loose, unconsolidated, or non-cohesive, thus the potential for lateral spreading on the project site is considered to be low.

Liquefaction. Liquefaction is the transformation of soil from a solid to a liquid state as a consequence of increased pore-water pressures, usually in response to strong ground shaking, such as those generated during a seismic event. Loose, granular soils are most susceptible to these effects while more stable silty clay and clay materials are generally somewhat less affected. The project site is not located in a liquefaction hazard zone as delineated in response to the Seismic Hazards Mapping Act.

Soil Expansion. Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. Structures or improvements built atop expansive soils may be subject to damage from soil shrinkage and swelling, associated with wetting and drying. A soil with a higher plasticity index is generally more prone to shrinkage or swelling in response to seasonal rainfall. The project site soils are classified as silty sand and poorly graded sand, which are considered to be non-plastic. Review of the Soil Survey of Monterey County indicates the project site to be underlain by Oceano Series Soils, which are not considered expansive.

Mineral Resources

Sand, gravel, and petroleum are the primary mineral resources extracted in Monterey County. Construction-grade aggregate (sand, gravel, and crushed stone) is the most abundant and commonly used mineral resource. Aggregate resources are classified by the State Geologist into four mineral resource zones based on the likelihood of the presence of mineral deposits and their economic value in the form of Mineral Resource Zones (MRZs) under the Surface Mining Reclamation Act of 1975 (SMARA). This mineral land classification is used to help identify and protect mineral resources in areas within the State subject to urban expansion or other irreversible land uses that would preclude mineral extraction. No mineral resources are known to exist on the project site.

Regulatory Environment

State Regulations and Policies

Alquist-Priolo Earthquake Fault Zoning Act. California's Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (PRC Sec. 2621 *et seq.*), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy¹ across the traces of active faults and strictly regulates construction in the corridors along active faults (*earthquake fault zones*). It also defines criteria for identifying active faults, giving legal weight to terms, such as *active*, and establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones.

Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are “sufficiently active” and “well-defined.” A fault is considered *sufficiently active* if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the Act as referring to approximately the last 11,000 years). A fault is considered *well defined* if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant 1997).

Seismic Hazards Mapping Act. Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong groundshaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the state is charged with identifying and mapping areas at risk of strong groundshaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

Local Regulations

Monterey County General Plan. The Monterey County General Plan provides policies for the protection of residents from geologic and soil hazards. The following policies are pertinent to the proposed project.

Policy 3.1.1 Erosion control procedures shall be established and enforced for all private and public construction and grading projects.

Carmel Area Land Use Plan / Local Coastal Program. The Carmel Area Land Use Plan/Local Coastal Program provides policies intended for the protection of residents from geologic and soil hazards. The following policies are pertinent to the proposed project.

¹ With reference to the Alquist-Priolo Act, a *structure for human occupancy* is defined as one “used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year” (California Code of Regulations, Title 14, Div. 2, Section 3601[e]).

Policy 2.7.3.1 All development shall be sited and designed to minimize risk from geologic, flood, or fire hazards. Areas of a parcel that are subject to high hazard(s) shall generally be considered unsuitable for development. For any development proposed in high hazard areas, an environmental or geotechnical report shall be required prior to County review of the project. These reports must include a demonstration that all the criteria in the applicable following policies are complied with and recommendations for mitigation measures (if mitigation is possible) consistent with the following policies. All recommended mitigation measures contained in the reports are to be County requirements (i.e., conditions of Coastal permits).

Policy 2.7.3.4 In locations determined to have significant hazards, development permits shall include a special condition requiring the owner to record a deed restriction describing the nature of the hazard(s), geotechnical, and/or fire suppression mitigations and, where appropriate, long-term maintenance requirements.

Policy 2.7.4.1 All development shall be sited and designed to conform to site topography and to minimize grading and other site preparation activities. Applications for grading and building permits and applications for subdivisions shall be reviewed for potential impacts to onsite and offsite development arising from geologic and seismic hazards and erosion. Mitigation measures shall be required as necessary.

Policy 2.7.4.2 All structures shall be sited a minimum of 50 feet from an identified active fault or potentially active fault. Greater setbacks may be required where it is warranted by local geologic conditions.

Policy 2.7.4.5 Soils and geologic reports shall be required for all new land divisions and for the construction of roads and structures, excluding minor structures not occupied by people, on slopes exceeding 30 percent or in areas of known or suspected geologic hazards. Both potential onsite and offsite impacts shall be evaluated in the report.

Policy 2.7.4.6 Where geotechnical evaluation determines that the hazard is unlikely to lead to property damage or injury, construction is permissible if certified by a registered geologist/soils engineer that the proposed development will not result in an unacceptable risk of injury or structural damage and the County building official and Environmental Review Section concurs. Such certification will be recorded with a copy of the deed at the County Recorder's Office.

Policy 2.7.4.7 Where soils and geologic reports are required, they should include a description and analysis of the following items:

For development proposed in all areas

- a) geologic conditions, including soil, sediment, and rock types and characteristics, in addition to structural features, such as bedding, joints and faults;
- b) evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity;
- c) impact of construction activity on the stability of the site and adjacent area;
- d) ground and surface water conditions and variations, including hydrologic changes caused by the development (i.e., introduction of sewage effluent and irrigation water to the ground water system; alterations in surface drainage);
- e) potential erodability of site and mitigating measures to be used to minimize erosion problems during and after construction (i.e., landscaping and drainage design);

- f) potential effects of seismic forces resulting from a maximum credible earthquake;
- g) any other factors that might affect slope stability.

Policy 2.7.4.9 As new soils and geologic investigations are completed and received by the County, the information contained therein shall be recorded and become part of the public record. Where appropriate, the results of such studies will be incorporated into the environmental review or planning process, as supplements or supersedes, to the more general information found in the Seismic Safety Element.

Policy 2.4.4.C.1 All grading requiring a County permit which would occur on slopes steeper than 15 percent shall be restricted to the dry season of the year.

Policy 2.4.4.C.3 Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with the initial grading operations and maintained through the development process to remove sediment and run-off waters. All sediment should be retained onsite.

Policy 2.4.4.C.4 The native vegetation cover, temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as soon as possible with planting of native annual grasses and shrubs, appropriate non-native plants, or with approved landscaping practices.

Policy 2.4.4.C.5 Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Onsite drainage devices shall be designed to accommodate increased run-off resulting from site modification. Where appropriate, on-site retention of stormwater should be required.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Relevant Project Characteristics

The project site consists of three existing buildings that have been essentially abandoned since 2005. The proposed development will renovate some existing structures, including a historic former hospital, will demolish a former residential structure that originally housed nurses, and will result in the construction of clustered condominium units.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault,
 - Strong seismic ground shaking,
 - Seismic-related ground failure, including liquefaction, or
 - Landslides;
- result in substantial soil erosion or the loss of topsoil;

- be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property;
- result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
- result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Impacts and Mitigation

Seismic Hazards

The project is not located within an Alquist-Priolo fault zone. However, seismic hazards at the project site, such as ground accelerations and ground shaking, are considerate moderate. The active faults that have been mapped in the area include the San Andreas and the Monterey Bay-Tularcitos Faults. The Monterey Bay-Tularcitos fault zone passes roughly 4 miles east of the site, and the San Andreas fault zone passes within approximately 28 miles to the northeast of the project site. No active faults have been mapped within the project site. Therefore, the hazard due to direct rupture within the project is low. However, severe groundshaking at the project site would be expected during a severe earthquake. Although the nearest source of such an earthquake would be the Monterey Bay-Tularcitos fault zone, the more likely source of major earthquakes during the life cycle of the project would be the San Andreas fault system. Since bedrock is deep and underlain by dense soils, ground motions at the project site are likely to be characterized by short durations, with low to moderate amplitudes. To minimize the potential effects from strong seismic ground shaking on project components, structural design of future buildings on the project site shall take into account the effects of regional seismicity. Specific factors for seismic design, as specified by the 2007 California Building Code, shall be adhered to by the project engineer. All recommendations from the project's Geotechnical Assessment Report prepared by O'Brien & Gere Engineers (November 2007) shall be incorporated by the project proponent into final design plans. All structures shall be designed to the most current standards of the California Building Code, at a minimum.

Implementation of the following mitigations would reduce seismic-related impacts to less-than-significant levels. These measures would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **The project would be exposed to potential adverse effects from strong seismic ground shaking that may result in damage to proposed structures. *This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation

- 4.6-1 In order to minimize the potential effects from strong seismic ground shaking on project components, all recommendations from the project's Geotechnical Assessment Report prepared by O'Brien & Gere Engineers (November 2007), and subsequent peer review (September 2008), shall be incorporated by the project proponent into final design plans, subject to review by the

Monterey County Planning Department prior to issuance of grading or building permits. This mitigation measure shall be placed as a note on the grading plans.

- 4.6-2 The project engineer shall ensure that all structures are designed to the most current standards of the California Building Code, at a minimum. Adherence into final design plans shall be reviewed by the Monterey County Planning Department prior to issuance of grading or building permits. This mitigation measure shall be placed as a note on the grading plans.

Grading and Soil Erosion

The project will require extensive grading on the site to facilitate construction of the proposed project (see **Figure 4.6-2, Grading Plan**). The project site would be graded to utilize the existing topography, including grading of slopes for parking garages to minimize the height and visibility of the proposed new buildings; however, development would occur on areas exceeding 30% slope. The portion of the project site that borders Highway 1 would include an earth berm that will be densely landscaped in order to screen the site from Highway 1 and to minimize traffic noise from Highway 1. Proposed grading would occur throughout most of the site and would involve approximately 13,242 cubic yards (CY) of cut/fill (see **Figure 4.6-3, Cut and Fill Plan**). Total earth disturbance, has been estimated by the project applicant to be approximately 13,242 CY with 9,589 CY of cut and 3,653 CY of fill. Therefore, the net amount of cut would be 5,936 CY, which will be exported from the project site to the Monterey Peninsula Landfill (see **Section 4.3 Air Quality** and **Section 4.13 Traffic and Circulation** of this Draft EIR for further discussion).

Grading will be subject to grading plan approval by the Monterey County Building Services Department. All grading requiring a County permit, which would occur on slopes steeper than 15 percent, shall be restricted to the dry season of the year. This impact would be reduced by application of standard Best Management Practices during construction in accordance with an erosion control plan and Storm Water Pollution Prevention Plan, which are a standard construction specification for professional engineers and required by the Clean Water Act (under the General Construction Stormwater Permit program of the National Pollutant Discharge Elimination System). All recommendations from the project's Erosion Control Plan (see **Figure 4.6-4, Proposed Erosion Control Plan**) shall be implemented into construction. For further discussion of the proposed project's construction-related impacts and Construction Management Plan, see **Section 4.3 Air Quality** and **Section 4.13 Traffic and Circulation** of this Draft EIR.

Implementation of the following mitigations would reduce grading and soil erosion impacts to less-than-significant levels. These mitigation measures would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **The hospital building may be adversely affected by the grading on the project site. This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.**

Mitigation

- 4.6-3 In order to minimize the potential effects from grading on the project site, all recommendations from the project's Geotechnical Assessment Report prepared by O'Brien & Gere Engineers (November 2007) shall be incorporated by the project proponent into final grading and erosion control plans, subject to review by the Monterey County Building Services Department prior to issuance of a grading or building permit. This mitigation measure shall be placed as a note on the grading plans.

4.6-4 In order to reduce on-site erosion due to project construction and operation, an Erosion Control Plan and Storm Water Pollution Prevention Plan shall be prepared for site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The Erosion Control Plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System. The erosion component of the plan must at least meet the requirements of the Storm Water Pollution Prevention Plan required by the California State Water Resources Control Board. In order to minimize the potential effects from grading on the project site, all recommendations from the project's Erosion Control Plan shall be implemented into construction activities on the project site. This mitigation measure shall be placed as a note on the grading plans. Erosion control measures may include, but not be limited to, the following:

- a) Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with the initial grading operations and maintained through the development process to remove sediment and run-off waters. All sediment shall be retained onsite.
- b) Native vegetation cover, temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as soon as possible through planting of native annual grasses and shrubs, appropriate non-native plants, or with approved landscaping practices.
- c) Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. On-site drainage devices shall be designed to accommodate increased run-off resulting from site modification. Where appropriate, on-site retention of storm water shall be required.

4.6-5 In order to minimize the potential effects from grading on the project site, all grading requiring a County permit, which would occur on slopes steeper than 15 percent, shall be restricted to the dry season of the year. This mitigation measure shall be placed as a note on the project grading plans.

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Source: WWD, 2008



Grading Plan

Figure
4.6-2

LEGEND - EARTHWORK CUT AND FILL

THE NUMBERS AS SHOWN BELOW INDICATE THE APPROXIMATE DEPTH OF CUT OR FILL (IN FEET) TO THE PAD GRADE AT NEW BUILDING AND FINISH GRADE ELSEWHERE.

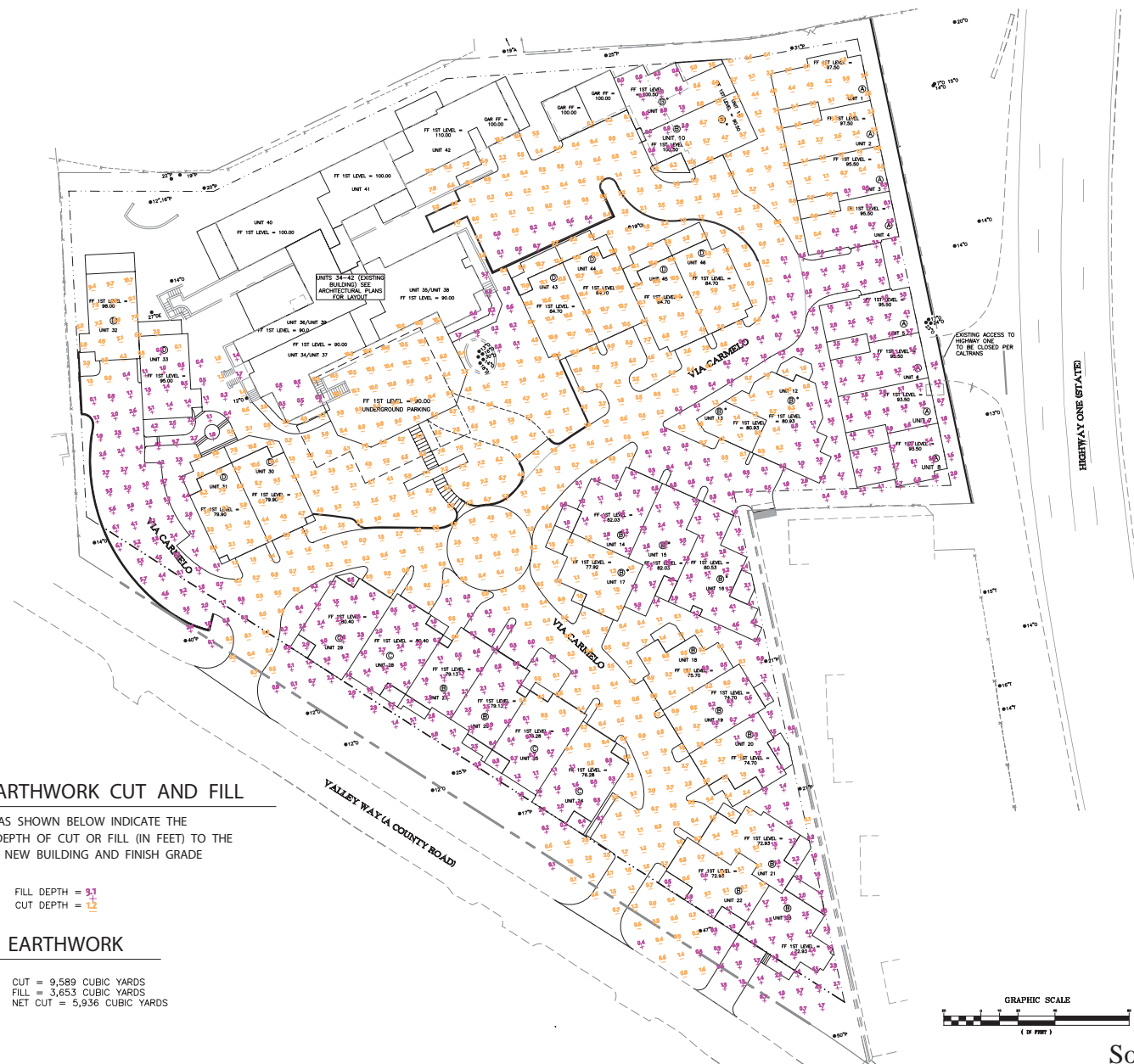
FILL DEPTH = 9.3
CUT DEPTH = 1.2

EARTHWORK

CUT = 9,589 CUBIC YARDS
FILL = 3,653 CUBIC YARDS
NET CUT = 5,936 CUBIC YARDS



Cut and Fill Plan



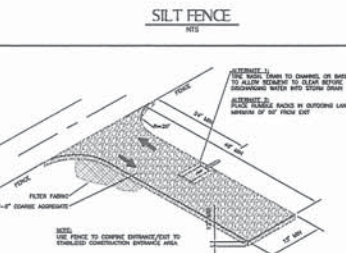
Source: WWD, 2008

Figure
4.6-3



SILT FENCE
TO BE USED ALONG THE PERIMETER OF THE SITE, ALONG STREAMS AND DITCHES (NOT ACROSS STREAMS OR DITCHES). MAINTAIN THE FACE OF THE FENCE AND ENSURE SLOPE OF SOIL BEHIND THE FENCE IS MAINTAINED TO PREVENT SOIL EROSION.

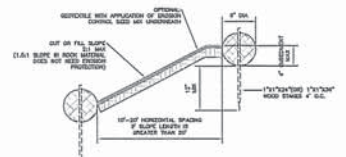
INSTALLATION
1. SET 2" x 4" x 1/2" WOOD STUDS (OR 1.5" x 1/2" x 1/2" STUDS) INTO SOIL, EXCAVATE A 4" x 4" TRENCH UPSTREAM ALONG THE LINE OF STUDS.
2. ATTACH SILT FENCE TO STUDS PER MANUFACTURER'S SPECIFICATIONS, EXTENDING FENCE INTO TRENCH.
3. BACKFILL TRENCH AND HAND COMPACT EXCAVATED SOIL.



CONSTRUCTION ENTRANCE
DETAIL

TO BE USED ALONG THE FACE OF EXCAVATION AND EROSION CONTROL TO MAINTAIN SLOPE LENGTH AT GRADE BEHIND EXISTING SLOPE PROTECTION TO A STABLE SLOPE, OR EXCAVATION SHALL BE BACKFILLED AND SLOPE SHALL BE MAINTAINED TO PREVENT SOIL EROSION.

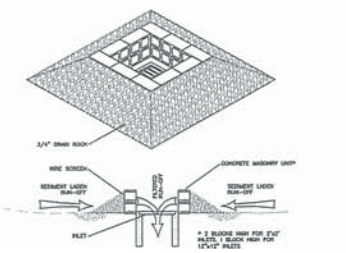
INSTALLATION
1. USE 1/2" x 1/2" x 1/2" WOOD STUDS, SPACING 10' ON CENTER, DRIVEN INTO SOIL TO FORM A WALL.
2. EXCAVATE FROM ROLLERS (10' TO 15') INTO THE EXISTING SLOPE TOGETHER WITH EXISTING WALL TO BREAK A HARD PLATE. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
3. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
4. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
5. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
6. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.



FIBER ROLL
DETAIL

TO BE USED WHERE EXISTING SLOPE SURFACE IS UNSTABLE AND A MAT THAT WILL DEGRADE SLOWLY INTO AN EROSION CONTROL MEASURE.

INSTALLATION
1. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
2. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
3. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
4. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
5. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.
6. FIBER ROLL SHALL BE PLACED IN THE TRENCH SO THAT THE ROLL LIES FLAT ON THE EXISTING SLOPE.



Source: WWD, 2008

Erosion Control Plan

Figure 4.6-4

Liquefaction

Soil liquefaction occurs as a result of strong seismic shaking of loose, saturated sediments. The project site is not located in a liquefaction hazard zone as delineated in response to the Seismic Hazards Mapping Act. ***Therefore, there would be no impact from liquefaction.***

Landslides, Debris Flow, and Lateral Spreading

The project site is relatively flat and any hilly topography would be graded to reduce slopes on the site, thereby reducing the risk of landslides and lateral spreading. The project would not result in on- or off-site landslides or induce lateral spreading. ***Therefore, there would be no impact from landslides, debris flow, or lateral spreading.***

Expansive Soil

According to the Geotechnical Assessment prepared for the project, the project site soils are classified as non-plastic. These soils are considered to be non-expansive as defined by the Uniform Building Code. The project would not be located on expansive soil that would result in substantial risks to life or property. ***Therefore, the project would have no impact on expansive soils.***

Mineral Resources

The project would not result in the loss of availability of a known mineral resource. Potential effects of the proposed project on mineral resources were found to have no impact because the project area does not contain significant mineral resources that would potentially be used for extraction, and proposed reuse activities are not expected to substantially alter landforms that may contain mineral resources. Therefore, effects on mineral resources are not analyzed further. ***There would be no impact to mineral resources.***

Cumulative Impacts

The geographic scope for this analysis includes the local project vicinity, including the watershed for erosion and sedimentation issues, soils stability, and seismic-related issues. Probable future projects shown in **Table 5.2-1** were considered in the analyses of cumulative impacts contained in the Draft EIR.

Soil and Seismic-Related Hazards

Implementation of the proposed project and other present and potential future projects (see cumulative vicinity projects listed in the **Section 5.2, Cumulative Impacts**), have the potential to add to the cumulative ground disturbance and development of the project area, thus increasing exposure of infrastructure and persons to potential soil instability and seismic hazards. However, these hazards are considered to be site specific impacts that affect individual sites and development projects and are adequately mitigated on an individual basis. As discussed in this section, there are numerous state and local regulations that act to reduce geologic and seismic risks to acceptable levels. Mitigation has been included above to reduce impacts to geology and soils during construction and subsequent operation of the proposed project to a less-than-significant level. Project design and building standards avoid the aggregation of individual effects into a significant combined impact. For these reasons, there would be no significant soil, seismic or seismic-related cumulative impacts. ***Therefore, the proposed project would not make a considerable contribution to any cumulative soil and seismic-related hazard impact.***

Erosion

Although there may be construction from other developments within the project and applicable planning areas, mitigation identified in this EIR, including development and implementation of an Erosion Control Plan and Storm Water Pollution Prevention Plan, would be required for the proposed project. All other present and future potential projects in the area would also apply similar mitigation in accordance with applicable federal, state, and local requirements identified above, and would not worsen existing erosion conditions at the proposed project site. For the above reasons, no significant cumulative impacts from erosion are anticipated with implementation of the proposed project. ***Therefore, the proposed project would not make a considerable contribution to any cumulative soil erosion impact.***

4.7 HAZARDS AND HAZARDOUS MATERIALS

Introduction

The Hazards and Hazardous Materials section assesses the potential public health and safety impacts relating to hazards that would result with implementation of the project. Flooding, seismic/geologic, and public service hazards, such as fire and emergency response, are discussed in the **Sections 4.8 Hydrology and Water Quality, 4.6 Geology and Soils, and 4.12 Public Services**, respectively. A Phase I Environmental Site Assessment (hereafter referred to as the Phase I report) was completed for the project by CapRock Geology, Inc., dated October 13, 2006, and was submitted as part of the project application materials. The Phase I report is available for review in **Appendix H**.

Setting

According to Section 25501(o) of the California Health and Safety Code, hazardous materials are defined as “any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.” Hazardous materials are often categorized into four classifications based on their main properties: toxic substances cause human health effects, ignitable substances have the ability to burn, corrosive substances cause severe burns or damage to materials, and reactive substances cause explosions or generate toxic gases.

Environmental Setting and Surrounding Land Uses

The property consists of three parcels, totaling 3.68 acres. There are three buildings currently located on the project site. The project site includes significant amounts of asphalt paving and unmaintained landscaping, creating impervious surfaces on approximately 51 percent of the site. Asphalt paving was mainly used as a parking surface to service the various buildings on site. The surrounding neighborhood comprises of residential uses to the north, west, and south, which include single-family homes and a 14-unit apartment complex. Highway 1 borders the property to the east. The project site is located in the unincorporated Coastal Zone of Monterey County. The topography of the site is sloped from north to south with an elevation change of 60 feet. The proposed project will acquire potable water through a municipal supplier, as no wells are proposed on site.

Historical Use of the Property

The site formerly known as the Carmel Convalescent Hospital contains three existing buildings, including the main hospital building, garage structure, and a building that was previously used as nurses' quarters. The former convalescent hospital site was developed between 1928 and 1930, specifically the garage and main hospital building. The nurses' quarters building, added at a later date, housed and cared for Alzheimer's disease patients. From 1934 to 1961, the site was used as the first Community Hospital of the Monterey Peninsula. When the Community Hospital facilities moved to the current location on Highway 68, the project site was used as a convalescent hospital until 2005. The garage structure was used as a pre-school from 1985 to 2005. From the hospital closure until the present, the main hospital building and garage have remained vacant and have fallen into disrepair. Future use of existing buildings for residential purposes will require extensive rehabilitation efforts. The nurses' quarters building is still in use as an occasional meeting center for support groups.

Phase 1 Review

The purpose of the Phase I Environmental Site Assessment was to determine the potential for hazardous material contamination on the site. This assessment included the following tasks: 1) site reconnaissance, 2) a geologic and hydrogeologic setting review, 3) a review of historic and present aerial photographs and personal interviews, and 4) a review of governmental databases, documents, and agency findings.

Site Survey. A site reconnaissance was conducted on February 23, 2005, to identify potential existing sources of hazardous materials on the site. The site reconnaissance revealed an emergency generator in a wooden shed and an above-ground propane tank located west of the main hospital building. The shed was inaccessible at the time of the evaluation, so the capacity for the generator was undetermined. The basement of the main building also contained a gas-operated boiler and an above-ground fuel tank filled with an unknown type of fuel. Additionally, these structures, according to the Phase 1 analysis, are likely to contain asbestos and/or lead-based paint and, therefore, could expose future site occupants or construction personnel to known hazardous materials.

As identified previously, existing buildings located on site are in a varying state of disrepair, and exposed plumbing and electrical cords were identified during the course of site reconnaissance. However, the existing physical condition of the building does not necessarily represent an environmental hazard in accordance with CEQA and as defined previously. Further, the proposed rehabilitation of the buildings will be required to meet applicable California Building Code standards that would remove any unsafe physical conditions that currently exist on site.

The site reconnaissance revealed no evidence of chemical storage on site. One area indicated the past storage of medical biohazard material; however, there was no evidence of spillage or stains in this area. No evidence of Polychlorinated Biphenyls (PCBs), septic disposal systems, water wells, wetlands, or environmental releases or spills were observed on the project site. No visible traces of mold were found.

Geologic and Hydrogeologic Setting Review. The Phase I report determined that the project site is located on the Salinian Block portion of the Coast Range geomorphic and geologic province. The characteristics of the Salinian Block include Cenozoic aged sedimentary rocks that overlay older metamorphic and igneous rocks, and structural grain is oriented in a northwest to southeast manner. Surface runoff drains into local storm drains that lead to the Pacific Ocean in Monterey Bay. Subsurface runoff is considered slow and subject to controlling by topography and existing earth materials. For further discussion on geologic and hydrologic impacts, please **Sections 4-6 Geology and Soils** and **4-8 Hydrology and Water Quality** in this Draft EIR.

Aerial Photograph Review and Personal Interviews. Nine sets of aerial photographs from 1939 to 2003 were analyzed for evidence of hazardous sources. No potential hazards were visible from the historic aerial photographs.

Database and Report Search. The Phase I database search was conducted to identify recorded hazardous materials incidents in the project area. The search included recorded incidents on the National Priorities List (NPL), State Priority List (SPL), the Superfund Comprehensive Environmental Response Compensation and Liability Information System List (CERLIS), the EPA's emergency response notification system list (ERNS), and other federal and state agency databases. CapRock completed a review of previous reports for the site, oil and gas well activities, restricted materials permits, and government agencies and databases for potential hazards nearby or onsite. The results of the report and database search found no additional sources of hazardous materials or contamination resulting from on-site conditions.

The Phase I analysis also included a search for conditions in the vicinity of the project site that may have the potential for hazardous impacts to construction workers and future occupants. The search included a review for Above-ground Storage Tanks (AST), Underground Storage Tanks (UST), and other potential hazards within ½ mile of the property site. None were visible, nor were any found during the database search.

The review for potential sites of concern within ½ to 1 mile found one site at a lower elevation. The Carmel Public Works Yard, located between 4th and 5th Street in Carmel, is listed on two databases: 1) Notify 65 database, which includes notifications about any release that could impact drinking water, and 2) the Leaking Underground Storage Tank (LUST) database, which maintains an inventory of reported LUST incidents. The LUST case involved a leaking diesel fuel tank closure, which was resolved in December of 1989. The database review indicated three more listings in the LUST database that may be in the proximity; however, their specific locations were not determined. The Phase I report indicated that there may be potential for soil and groundwater contamination beneath the project site due to the LUST cases in the vicinity.

In addition to the database review conducted by the Phase I consultant, the EIR consultant also conducted a brief database review for hazardous materials in and around the project site. A review of Monterey County Environmental Health Department files for the Hazardous Materials Division found no files on record for the project site. A review of the Environmental Protection Agency database for superfund sites identified the nearest superfund site as Fort Ord, located five miles northeast of the project site (EPA 2008). A review of the California Department of Toxic Substances Control (DTSC) Envirostar Database¹ revealed that there were no sites on record at the project site or in the near vicinity. The nearest site identified is the Presidio of Monterey located in the City of Monterey, three miles north of the project site (DTSC 2007). The nearest airport, the Monterey Peninsula Airport, is located four miles northeast of the project site.

Existing Hazards

Asbestos Containing Material. The unregulated or unprotected exposure to asbestos containing material (ACM) has been related to human health and safety concerns. Both the Occupational Safety and Health Administration (OSHA) and the EPA regulate asbestos due to potential health hazards. Exposure to ACM can increase the risk of asbestos related diseases, including certain cancers that can result in disability and/or death. Asbestos was banned from use in buildings in the 1970s; however, the buildings on site were constructed between the late 1920s and the early 1930s when ACM was still used as insulation around fixtures and piping and in various construction materials. The existing structures still contain much of the original fixtures, piping, linoleum, and acoustic ceiling tiles where asbestos is likely present. The demolition and rehabilitation of structures on the site are likely to result in the exposure of construction personnel and/or future occupants to environmental hazards associated with asbestos.

Lead-Based Paint & Other Lead Hazards. Exposure to lead-based paint has the potential to result in significant human health and safety concerns without proper management, especially in areas proposed for residential uses. Health risks relating to lead-based paint exposure include neurological damage from lead poisoning, learning disabilities, behavioral problems, and impaired memory in children. Lead-based paint was banned from use in structures in 1978. As the structures were constructed in the 1920s and

¹ Section § 25356(b) of the Health and Safety Code (HSC) requires Department of Toxic Substances Control (DTSC) to maintain an annually updated list of hazardous substance release sites. These sites are available on the DTSC's "Envirostor" database, which includes the Hazardous Waste and Substances site "Cortese" list, compiled pursuant to Government Code Section § 65962.5. The "Envirostor" database can be found online at <http://www.envirostor.dtsc.ca.gov/public/>.

1930s, these structures likely contain lead-based paint. Given the current state of disrepair of the buildings, flaking of lead-based paint may have contaminated soil on site. Further, the demolition and rehabilitation of structures on the site are likely to result in the exposure of construction personnel and/or future occupants to environmental hazards associated with lead-based paint.

Other Known Hazards. As mentioned above, the Phase I report identified a generator, a boiler, and several fuel tanks on the premises. These items have the potential to contain, or be considered as, hazardous materials. Additionally, the Phase I report identified one potential site of concern within the vicinity of the project site: the Carmel Public Works Yard. The site is listed as a possible source of drinking water contamination and a leaking diesel fuel underground storage tank. However, records indicate that the LUST case was resolved in December of 1989. This site and the three other LUST sites that may be in the proximity to the project site have the potential for soil and groundwater contamination beneath the project site. However, as the proposed project would acquire potable water services from a municipal service provider and no wells are proposed or currently on the site, potential groundwater contamination from offsite sources would pose no threat to workers or future occupants.

As a hospital, the facility would have produced several hazardous wastes from x-ray photo-processing, including processing wastes, chemical sterilants, and disinfectants. The garage/shop was used as a storage facility for x-ray films. According to the DTSC, photo-processing procedures for medical and dental uses, as well as the x-ray films themselves, contain silver and lead (DTSC 2000). The State of California has several regulations regarding the disposal of medical and dental hazardous wastes. Among these, Health and Safety Code Section 25143.13 contains management requirements for hazardous wastes with silver-only content, such as x-ray films and processing solutions. It is unknown if these substances are still located on the site; therefore, there is potential for construction and rehabilitation personnel to encounter these substances.

Regulatory Environment

Federal

The U.S. Environmental Protection Agency (EPA) is responsible for enforcing regulations at the federal level pertaining to hazardous materials and wastes. The primary federal hazardous materials and wastes laws are contained in the Resources Conservation and Recovery Act (RCRA) of 1976 and in the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980. CERCLA, more commonly known as Superfund, established the National Priorities List for identifying and obtaining funding for remediation of severely contaminated sites. Federal regulations pertaining to hazardous materials and wastes are contained in the Code of Federal Regulations (40 CFR). The regulations contain specific guidelines for determining whether a waste is hazardous, based on either the source of generation or the characteristics of the waste.

Transportation of hazardous materials by truck and rail is regulated by the U.S. Department of Transportation (DOT). DOT regulations establish criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code.

State

The EPA has delegated much of its regulatory authority to individual states whenever adequate state regulatory programs exist. The Department of Toxic Substance Control Division of CAL EPA is the agency empowered to enforce federal hazardous materials and waste regulations in California, in conjunction with the EPA. Several state laws which manage hazardous materials include the following:

- Hazardous Materials Release Response Plans and Inventory Act of 1985;
- Hazardous Waste Control Act;
- California Occupational Safety and Health Administration Standards; and
- California Government Code Section 65962.5, which requires the Office of Permit Assistance to compile a list of possible contaminated sites in the state.

California hazardous materials and waste laws incorporate federal standards, but in many respects are stricter. For example, the California Hazardous Waste Control Law, the state equivalent of RCRA, contains a much broader definition of hazardous materials and waste. State hazardous materials and waste laws are contained in the California Code of Regulations, Titles 22 and 26. Regulations implementing the California Hazardous Waste Control Law list hazardous chemicals; establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Under RCRA, a facility is classified as a generator of hazardous waste if it generates and stores hazardous waste on site for less than 90 days; such a facility is required to obtain an EPA generator's identification number from the EPA or the California DTSC. If hazardous waste is stored on site for longer than 90 days, the facility is classified as a Transfer, Storage, or Disposal Facility and is required to obtain a RCRA Part B Storage Permit, which can take approximately two years to obtain. Transportation and disposal of hazardous materials are also regulated; hazardous waste must be characterized to determine methods of disposal and site disposal (i.e., class of landfill).

Under both RCRA and the California Hazardous Waste Control Law, hazardous waste manifests must be retained by the generator for a minimum of three years. A hazardous waste manifest lists a description of the waste, its intended destination, and regulatory information about the waste. A copy of each manifest must be filed with DTSC. The generator must match copies of hazardous waste manifests with receipts from the treatment/disposal/recycling facility to confirm that the wastes were properly handled.

Relevant Project Characteristics

The proposed project would require extensive rehabilitation of the main hospital building and garage structure to meet the requirements for residential use. In addition to the rehabilitation of the two existing on-site structures, development of the proposed 10 new residential buildings would require the demolition of the former nurses' quarters building. The structures on site were constructed prior to 1978; therefore, they most likely contain asbestos and lead-based paint.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, a project impact would be considered significant if the project would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area; or
- for a project within the vicinity of a private airstrip, would result in a safety hazard for people residing or working in the project area.

Impacts and Mitigation

Exposure to Existing Hazards

As mentioned previously, the Phase I report identified several potential hazards-related concerns at the project site, which include the possible presence of asbestos and lead-based paint, as well as the confirmed presence of fuel tanks, a boiler, and a generator on site and potential sources of groundwater contamination in the vicinity of the project. Further, the EIR consultant identified the potential for the presence of hazardous materials associated with x-ray film processing and storage on the site. The presence of existing hazards on site may result in a significant public health hazard due to the potential exposure of construction personnel and future residential occupants to these hazards if not properly remediated. Demolition of existing structures and clearing, excavation, and construction activities associated with the proposed project could also result in the exposure of construction personnel and future site occupants to hazards and associated health risks as well. The presence of known and possible unknown hazards on the project site is considered a potentially significant impact.

The presence of the Carmel Public Works Yard and the three other LUST sites that may be in the proximity to the project site create the potential for soil and groundwater contamination beneath the project site. However, these listings are existing sites that have been monitored and/or rehabilitated by federal agencies. As the proposed project would acquire potable water services from a municipal service provider and no wells are proposed or currently on the site, potential groundwater contamination from offsite sources would pose no threat to workers or future occupants. *Therefore, this impact would be considered less than significant.*

To address potential impacts due to the remaining existing hazards, mitigation is necessary to ensure that adequate procedures are incorporated into the project to protect human health and the environment. These measures require that all lead-based paint and ACM materials be certified and disposed of in accordance with applicable federal and state laws. Further, mitigation measures would ensure that all potential hazards on site, including existing tanks and boilers, were disposed of properly prior to construction of the project.

In addition to project-specific mitigation measures, worker and public health/safety requirements would be required during remediation activities, including legally-required safety and hazardous waste handling and transportation precautions and federal OSHA regulations. Incorporation of these mitigation measures, including the disposal of any documented hazards, would ensure that all hazards are properly disposed of prior to construction of the proposed project, which would reduce potential impacts from these hazards to a less-than-significant level. Implementation of the following mitigation measures would not result in any new environmental impacts beyond those previously identified in this Draft EIR.

Impact **Development of the proposed project, including site grading, excavation, demolition, and other land-disturbing activities, may result in the exposure of construction personnel and site occupants to health and safety risks. *This represents a significant impact that would be reduced to a less-than-significant level with the following mitigation measures.***

Mitigation

- 4.7-1 In order to reduce human health risks to construction personnel and future site occupants, the project applicant shall retain a qualified consultant to survey all buildings for asbestos under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to the issuance of any permit. If asbestos containing material is documented within existing on-site structures, all potentially friable asbestos shall be removed prior to building demolition in accordance with NESHAP guidelines. Prior to the issuance of a demolition permit, the project applicant shall submit written evidence to Monterey County Division of Environmental Health from a qualified consultant demonstrating that all asbestos containing material has been properly removed and demolition activities may proceed without exposing construction personnel to asbestos-related hazards.
- 4.7-2 In order to reduce human health risks to construction personnel and future site occupants, the project applicant shall retain a qualified consultant to conduct a lead-based paint and Title 22 metal surveys to evaluate the presence of lead-based paint, silver, or other toxic metals prior to the issuance of any permit. If lead-based paint is observed within existing buildings and the surrounding area, all peeling and flaking lead-based paint shall be removed and properly disposed of separately from building debris, in accordance with current Department of Toxic Substances Control policies and California Code of Regulation Title 8, Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and mandates good worker practices by workers exposed to lead. All site soils contaminated by lead-based paint shall be removed and properly disposed of prior to any construction activities. Contractors performing lead-based paint removal shall provide evidence to Monterey County Division of Environmental Health of certified training for lead-related construction work. Prior to the issuance of a demolition permit, the project applicant shall submit written evidence to Monterey County Division of Environmental Health from a qualified consultant demonstrating that all lead-based paint has been properly removed and that no further health hazards related to lead-based paint exist on site.
- 4.7-3 An Operations, Maintenance, and Remediation Plan shall be prepared and implemented for asbestos, lead, and any other toxic material discovered on site to reduce contamination to acceptable levels, maintain the safety of construction workers and future site users, and assure proper management of contaminated materials in accordance with state and local regulatory requirements. This plan shall include, but not be limited to, a detailed accounting of contaminated materials found on site, standards and requirements for construction personnel for handling contaminated materials, and required procedures and industry standards for removal and remediation of contaminated materials. This plan shall be subject to review and approval by Monterey County Division of Environmental Health. Evidence shall be provided to Monterey County, prior to the issuance of any grading permit, demonstrating that all necessary remedial actions have been completed pursuant to the approved Remediation Plan.
- 4.7-4 If hazardous chemicals, such as paints, photo-processing wastes, chemical sterilants, disinfectants, paint-related chemicals, or cleaning chemicals are discovered on the site during the demolition of the outlying buildings, the restoration of the former hospital and garage, or construction of the proposed residential structures, the applicant shall ensure that the chemicals

shall be disposed of at an appropriate permitted facility. Once removed, any and all exposed surfaces shall be visually observed to confirm the presence/absence of staining. Should staining be observed, the stained surface, including concrete or asphalt, shall be removed and disposed of at an approved landfill and the underlying soils visually observed to confirm the vertical extent of contamination. If staining is observed, stained soils shall be tested to identify appropriate remedial activities.

- 4.7-5 In order to ensure that future construction personnel are not exposed to previously unknown environmental hazards or if suspected hazardous materials are discovered prior to or during construction, the contractor shall:
1. Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
 2. Notify the Project Engineer of the implementing agency;
 3. Secure the area as directed by the Project Engineer; and
 4. Notify the implementing agency's Hazardous Waste/Materials Coordinator.

A qualified consultant shall then be retained to determine the nature of the potential hazards. The consultant findings shall be subject to review and approval by Monterey County Division of Environmental Health. Evidence shall be provided to Monterey County Division of Environmental Health, prior to continuation of demolition in the specified area, demonstrating that all necessary remedial actions have been completed pursuant to the approved recommendations of the qualified consultant.

- 4.7-6 In order to ensure that all existing boilers, generators, and fuel tanks are properly disposed of, the project applicant will administer a quality check for the propane tank and diesel generator located on the west end of the property prior to use or removal. If the applicant plans to retain any of the existing fuel tanks or generators on site, the project applicant shall properly register these items with Monterey County Division of Environmental Health. If the project applicant plans to remove any of these items, then the applicant and/or contractor shall properly dispose of any or all existing heating boilers, generators, and fuel tanks off site at an appropriate permitted landfill facility. All materials shall be removed in accordance with applicable local, state, and federal requirements and will be subject to review and approval of Monterey County Division of Environmental Health. Once the boilers and tanks are removed, a visual inspection of the areas beneath and around the removed boilers shall be performed by a qualified consultant. Any stained soils observed underneath the boilers shall be sampled, with results submitted to Department of Environmental Health, and removed in accordance with industry standards. Prior to the issuance of any permit, the project applicant shall submit evidence to Monterey County Division of Environmental Health demonstrating that all boilers, generators, and fuel tanks have been properly removed or recorded.

Accidental Hazard Protection

The project site likely contains ACM and lead-based paint, which may enter the atmosphere if not handled or disposed of properly. This has the potential to be a significant impact for construction workers, future residents on the site, and neighboring areas. ***However, with the implementation of mitigation measures 4.7-1 through 4.7-6, the impacts would be reduced to a less-than-significant level.***

Hazardous Material Use

The proposed project would be for residential use. As such, no routine transportation, use, or disposal of hazardous materials is proposed for the project and its operation. However, small amounts of pesticides

may be used for landscaping purposes on the site. Pesticide use would be required to comply with Monterey County Division of Environmental Health standards. ***Therefore, impacts relating to hazardous materials use are considered less-than-significant, and no mitigation measures are required.***

Airport Hazards

The project site is not located within two miles of a public or private airstrip, nor is the project site located in an airport land use planning area. Therefore, project development would not result in a safety hazard for people residing or working in the project area relating to airport hazards. ***The project would have no airport-related hazardous impacts.***

School Hazards

The nearest school facility is not within a quarter of a mile of the project site. Carmel High School is 0.35 miles to the south. Further, the mitigation provided above would limit the impacts from hazardous waste removal from the site. No hazardous material use is proposed for the project site; therefore, project implementation would not expose Carmel High School to any new hazardous materials. ***As such, there are no hazard-related school impacts.***

Cumulative Impacts

The geographic scope of the cumulative impacts analysis for hazards and hazardous materials includes the local vicinity of the project site and Monterey County. A review of the data files from the Environmental Protection Agency database for superfund sites and the California DTSC Envirostar Database revealed that there were no sites on record at the project site or in the near vicinity. The nearest site identified is the Presidio of Monterey located in the City of Monterey, three miles north of the project site (DTSC 2007). The nearest airport, the Monterey Peninsula Airport, is located four miles northeast of the project site. Asbestos was banned from use in buildings in the 1970s. Lead-based paint was banned from use in structures in 1978. Both OSHA and the EPA regulate asbestos due to potential health hazards.

Project-specific mitigation measures have been incorporated to ensure that the exposure of the public to environmental hazards is minimized. Potential cumulative impacts associated with the exposure of the public to environmental hazards due to the development of the area are also minimized through existing regulations. ***The cumulative impacts associated with hazards and hazardous materials would be less-than-significant.***

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4.8 HYDROLOGY AND WATER QUALITY

Introduction

This section describes the hydrology and water quality setting for the Villas de Carmelo project and analyzes the hydrology and water quality impacts of the proposed project. Discussions also include determinations of significance and corresponding mitigation. Analysis for this section is based on results of several reports prepared for this project, including the following:

- WWD Engineering (September 30, 2008) Preliminary Drainage Report for Villas de Carmel, Carmel, CA 93921, 4th Revision. (The report is included as **Appendix I** of this document.)
- WWD Engineering (August 18, 2008) Clarifications to Preliminary Drainage Report. (The report is included as **Appendix I** of this document.)

A Preliminary Drainage Report was originally prepared for the project by WWD Engineering (December 12, 2007) and was submitted as part of the project application materials. Per Monterey County Planning Department request, a peer review of the report was conducted by Whitson Engineers (August 14, 2008), consulting hydrologic engineers for the Draft EIR. A final revision of the Preliminary Drainage Report was provided in response to the peer review (September 30, 2008). As such, the following discussion and analysis incorporates information from the final documents listed above. The complete set of documents and their respective peer reviews are available for review at the Monterey County Planning Department.

Setting

The project is located on a 3.68 acre site in the unincorporated Coastal Zone of Monterey County bordered by the city of Carmel-by-the-Sea. The project site is bounded to the southwest by Valley Way, a County-maintained road, to the east by Highway 1, and to the southeast by a private drive known as Hatton Lane. The site's southern border is located 400 feet from the intersection of Valley Way and Highway 1. Single-family homes are located on the northern and northwestern borders of the property. A 14-unit apartment complex borders the project site to the southeast.

The climate in this region consists of generally mild temperatures year-round, with high temperatures varying from the low 60s in the winter to the high 60s in the summer. Average annual precipitation is 18 to 20 inches, and the majority of rainfall occurs in winter.

The site's topography consists of a raised northern area gently sloping southwards. Elevation ranges from 445 feet above sea level at the southern border of the project site to 505 feet in the northern extent of the site. Storm water flow on site drains overland to localized depressions and/or ditches adjacent to Valley Way and Highway 1. The portions of the project site that are not paved have been extensively landscaped with numerous ornamental tree, shrub, vine, and herbaceous species. Site vegetation can be characterized primarily as areas of mixed Monterey pine and coast live oak woodland with an understory of landscaped shrubs and groundcover.

Soils at the site vary based upon the topography of the site. Lower elevations consist of hard silt and colluvium overlying dense sand. Dark brown clay underlies the sandy layer, under which the formation of Monterey siltstone bedrock with interbedded clay is present. Higher elevations are comprised of a bedrock layer closer to the surface with very little overlying material. All of these materials are considered dense materials.

The proposed project would result in increased impervious areas (paved surfaces and buildings) on the project site. Buildout of the proposed project would result in a total of 41,945 additional square feet of building coverage and 2,689 additional square feet of paved areas. Current run-off from the project is directed to Highway 1 and Valley Way. The project proposes to accommodate storm water run-off on site. Storm water run-off would be routed as surface flow to three proposed underground detention facilities. The project proposes one cul-de-sac road, to be named Via Carmelo, to serve the residences. The road would be constructed of permeable materials.

The project will require grading on the site to facilitate construction of proposed uses. The site would be graded to utilize the existing topography, including grading of slopes for parking garages, and to minimize the height and visibility of the buildings. Proposed grading would occur throughout most of the site and would involve approximately 13,242 cubic yards (CY) of cut/fill with 9,589 CY of cut and 3,653 CY of fill. The net amount of cut would therefore be 5,936 CY, which would be exported from the project site.

Regional Surface Water Resources

Surface water located within 2 miles of the project site includes the Pacific Ocean, Carmel River, and Hatton Canyon Creek.

Site Surface Water Resources

No existing or proposed surface water resources are located on the site.

Groundwater Resources

The project site does not contain any wells. Groundwater is present within the Quaternary and Holocene age sediments at relatively shallow depths below the existing ground surface. As such, original trenching activities uncovered groundwater at the project site.

Regulatory Framework

Federal Clean Water Act

The Federal Clean Water Act (CWA) is codified in 33 USC 1251-1376. The following sections are relevant to this project.

- *Sections 303 and 304.* These sections provide water quality standards, criteria, and guidelines, including the requirements under the National Pollutant Discharge Elimination System (NPDES).
- *Section 401/404.* Any federal permit that includes an activity that may result in a discharge to waters of the U.S. would be subject to the provisions of Section 401. The U.S. Army Corps of Engineers administers a permit program for any discharges of dredged or fill material into waters of the U.S. under Section 404. The project would not require a federal permit or affect any waters of the U.S.

Porter-Cologne Water Quality Act

The basis for water quality regulation in California is the Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.). This Act requires a "Report of Waste Discharge" for any discharge (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of the

state's surface or groundwater. Based on the reports, the local Regional Water Quality Control Board (RWQCB) issues waste discharge requirements to minimize the effect of the discharges.

The Porter-Cologne Act delegates authority to the State Water Resources Control Board to establish regional water quality control boards. The Central Coast RWQCB has authority to use planning, permitting, and enforcement to protect beneficial uses of water resources in Monterey County. The RWQCB uses its adopted Water Quality Control Plan for the Central Coast Region, referred to as the Basin Plan (1994), to implement policies and provisions for water quality management in the region. The Basin Plan identifies beneficial uses of major surface waters and their tributaries, in addition to water quality objectives and implementation plans to protect these beneficial uses.

National Pollutant Discharge Elimination System

Storm water discharges in California are regulated through permits known as National Pollutant Discharge Elimination System (NPDES) Permits, which are issued by the State Water Resources Control Board (SWRCB) and administered by relevant RWQCBs. NPDES permits were created through the 1987 re-authorization of the Federal Clean Water Act (CWA) to protect existing drainage ways and to reduce pollution being conveyed to waterways from dispersed sources, such as pollution from urbanized areas.

Phase I of the U.S. Environmental Protection Agency's (EPA) storm water program, promulgated in 1990, relies on NPDES permits to address storm water runoff from: 1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater; 2) construction activity disturbing 5 acres of land or greater; and 3) ten categories of industrial activity.

The Phase II NPDES program, promulgated by the EPA in 1999, regulates additional operators of MS4s in urbanized areas and operators of small construction sites (1 acre or more) through the implementation of NPDES permits. The NPDES permits implement programs and practices to control polluted storm-water run-off, which include similar requirements to the Phase I Permits.

Because the cities in Monterey County are covered by the Phase II program and most of the cities are member entities of the Monterey Regional Water Pollution Control Agency (MRWPCA), MRWPCA's Board of Directors directed its staff to assist the entities in complying with the regulations. A working group comprised of public works representatives from each of MRWPCA's member entities was formed in March 2000 and held meetings to evaluate the feasibility and potential benefits of obtaining a regional permit rather than individual entity permits. The Working Group decided to apply as co-permittees under a single "General Permit."

To formalize this regional approach, in mid-2002 a "Memorandum of Agreement for the Monterey Regional Storm Water Pollution Prevention Program" was prepared and executed by the MRWPCA and by nine entities in the southern Monterey Bay area. The purpose of the Memorandum of Agreement was to create the administrative organization, responsibilities, and commitments to develop a regional storm water program and to cooperate to efficiently and economically comply with the Phase II NPDES requirements.

The Monterey Regional Storm Water Management Program (MRSWMP) was developed to implement and enforce "Best Management Practices" (BMPs). These BMPs are designed to reduce the discharge of pollutants from the municipal storm sewer systems to the "maximum extent practicable" to protect water quality and to satisfy the appropriate water quality requirements of the CWA. Many of the BMPs encourage on-site infiltration or other methods of reducing the volume of storm water runoff. The MRSWMP outlines the requirements that jurisdictions must adhere to for the improvement and protection

of water quality and aquatic habitat within their jurisdictions. This is accomplished by implementing and enforcing a series of BMPs that apply to development/construction projects and municipal operations.

California Fish and Game Code

The California Fish and Game Code (Sections 1600-1607) authorizes the Department of Fish and Game to enter into streambed alteration agreements with applicants to develop mitigation measures for projects that would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there are fish or wildlife resources, including intermittent and ephemeral streams. The project will not directly affect any streams or other water resources.

Local Regulatory Framework

Monterey County General Plan. The Monterey County General Plan provides policies regarding hydrology and drainage issues. The following policy is applicable to the project site:

Policy 17.3.13 Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.

Carmel Area Land Use Plan/Local Coastal Program. The Carmel Area Land Use Plan provides policies regarding hydrology and drainage issues. The following policies are applicable to the project site:

Policy 2.4.3.2 New development, including access roads shall be sited, designed, and constructed to minimize runoff, erosion, and resulting sedimentation. Land divisions shall be designed to minimize the need to clear erodable slopes during subsequent development. Runoff volumes and rates should be maintained at pre-development levels, unless provisions to implement this result in greater environmental damage.

Policy 2.4.4.A.1 New development shall be approved only where it can be demonstrated by the applicant that adequate water is available from a water utility or community system or an acceptable surface water diversion, spring, or well. At the County's discretion, applicants may be required to submit a hydrologic report certifying sustained yield of the water source to serve new development outside of existing water utility service areas.

Policy 2.4.4.A.6 Water conservation devices shall be required in conjunction with new development. Drought tolerant landscaping should be required where appropriate. Construction of roads and driveways with pervious surfaces shall be encouraged where appropriate.

Policy 2.4.4.C.3 Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with the initial grading operations and maintained through the development process to remove sediment and run-off waters. All sediment should be retained onsite.

Policy 2.4.4.C.4 The native vegetation cover, temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as soon as possible with planting of native annual grasses and shrubs, appropriate non-native plants, or with approved landscaping practices.

Policy 2.4.4.C.5 Provisions shall be made to conduct, surface water to storm drains or suitable watercourses to prevent erosion. On site drainage devices shall be designed to accommodate increased

run-off resulting from site modification. Where appropriate, on-site retention of storm water should be required.

Policy 3.2.3.3 The County should require new development in the Cal-Am service area to employ water conservation techniques to the greatest possible extent. This would include, among other things, use of water-saving fixtures, retention of native vegetation, and use of drought-tolerant landscaping.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- violate any water quality standards or waste discharge requirements;
- 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);
- 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;
- 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;
- create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- otherwise substantially degrade water quality;
- 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;
- place within a 100-year flood hazard area structures which would impede or redirect flood flows; or
- 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.

Impacts and Mitigation

Surface Drainage/Flooding

The project proposes to utilize permeable paving and to construct a stormwater drainage system to capture and convey storm runoff from the project site (see **Figure 4.8-1, Proposed Stormwater Management System**). New on-site stormwater detention facilities will be designed to limit 100-year post-development runoff to the 10-year pre-development rate on the project site. This would be accomplished via a storage detention area located adjacent to the proposed new entrance of the project site. The Preliminary Drainage Report prepared for the proposed project concluded that the project would result in a maximum on-site storage capacity of 7,745 cubic feet for the post development 100 year storm, with an allowable discharge rate equal to the peak 10 year pre-development run-off of 1.35 cfs (cubic feet per second) (WWD Engineering 2008). The on-site storage facility would consist of a storage tank with an approximate capacity of 7,760 cubic feet and a wet-well pump station containing two 300 gpm (gallons per minute) Flygt pumps, which would discharge into the existing drainage ditch along Valley Way (see **Figure 4.8-2**). The final design of the underground facilities would be reviewed by the project's Geotechnical Engineer prior to the commencement of construction activities.

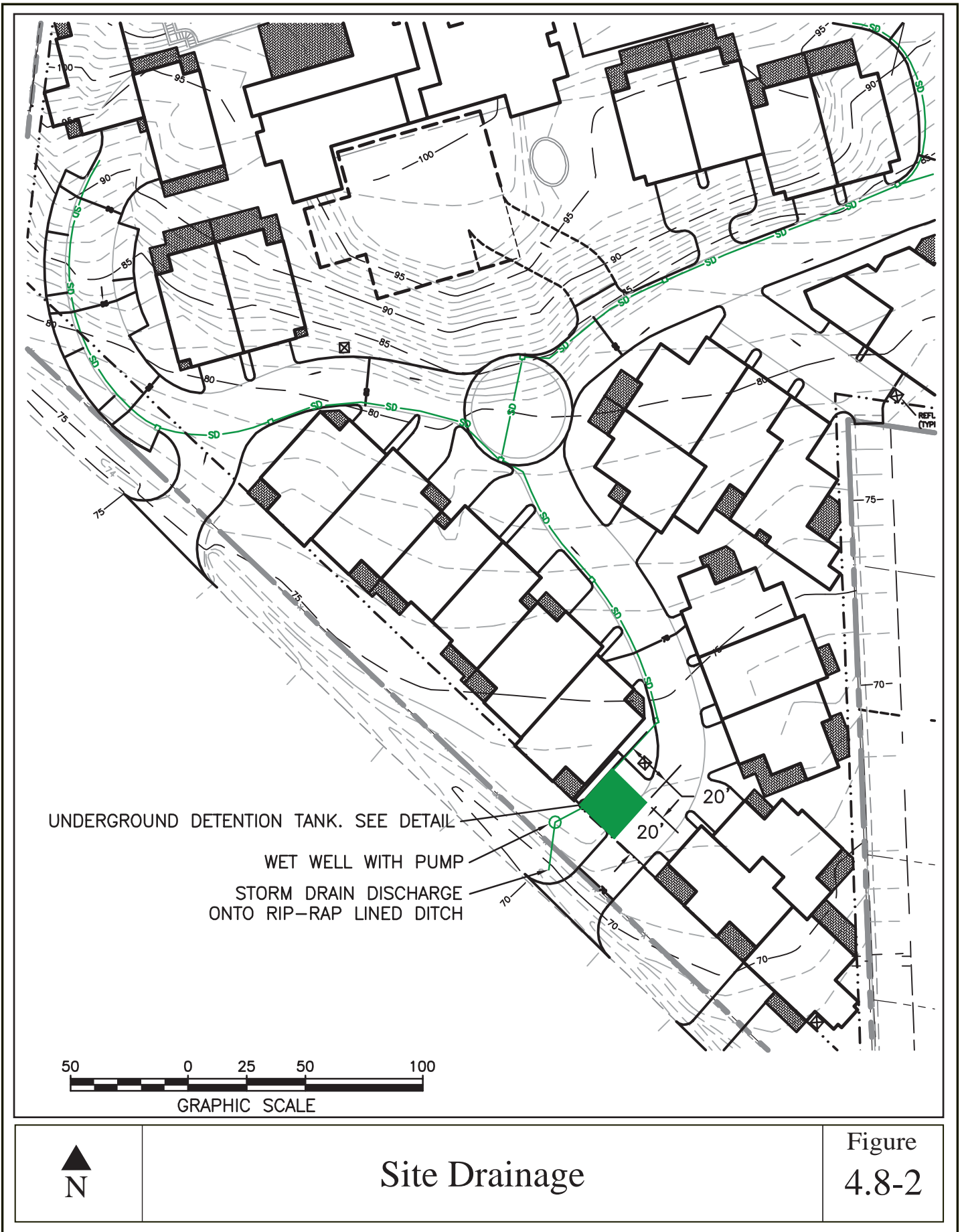
In order to further reduce potential increases in runoff flows as a result of implementation of the proposed project, permeable paving would be used for all roadways and driveways on the project site. Paving and development for the proposed project would thus not substantially increase impervious surfaces on the site, increase runoff flows, or reduce groundwater recharge. The project site is not located within any flood hazard zones. Therefore, the project would not expose people or structures to flood hazards or impede flood flows. Site-specific grading and geotechnical information will be submitted prior to construction and all requirements will be incorporated into the project. See **Section 4.6 Geology, Soils, and Mineral Resources** for further discussion of geological and geotechnical considerations of the proposed project.

The proposed project has the potential to increase stormwater run-off from the project site. The proposed drainage facilities would be designed in order capture the increased stormwater run-off from the project site and would detain water onsite, as consistent with Monterey County standards. *Implementation of this mitigation measure would ensure that project-related impacts remain less-than-significant.* The implementation of this mitigation measure would not result in any new impacts beyond those identified in this Draft EIR.

Impact **The proposed project has the potential to increase stormwater run-off from the project site. This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measure.**

Mitigation

- 4.8-1 In order to ensure that increased levels of stormwater run-off are detained onsite, the project's Geotechnical Engineer shall provide evidence to the Monterey County Planning Department that recommendations contained within the project's Preliminary Drainage Report have been adhered to regarding the project's proposed on-site drainage storage facility prior to the issuance of building permits.



Water Quality and Stormwater Management

In the short term, construction activities could result in erosion and the release of pollutants, such as oil, grease, and heavy metals from equipment. In the long term, surface runoff from the proposed development could introduce urban pollutants affecting water quality, such as oil, grease, and trace metals from vehicles using parking areas and roadways. In addition, fertilizers, pesticides, and herbicides released from landscaped areas could impact water quality.

Implementation of the proposed project would require the applicant to obtain a NPDES Program Construction General Permit. The NPDES Permit program requirements are applicable to the project and dictate the implementation of BMPs to control and reduce the discharge of non-point source, runoff pollutants associated with storm water runoff. The requirements pertain to pollutant runoff during construction phases of a project, as well as during post-construction periods. In order to reduce potential pollutants, such as sediment, pesticides, petroleum products, and nutrients, BMPs applicable to the project site include, but are not limited to:

- Identify sources of visible and non-visible pollutants that could affect the quality of stormwater discharges associated with construction activity from the site;
- Identify sources of non-stormwater discharges;
- Identify how to reduce or eliminate pollutants in stormwater and non-stormwater discharges from the construction site during construction, to the maximum extent practicable;
- Develop a post-construction plan to be implemented during construction or reduce or eliminate pollutants after construction is completed;
- Remove hazardous materials prior to demolition activities;
- Identify areas for a) storage of soil and solid waste, b) vehicle storage and service, c) construction material loading, unloading, and access, and d) equipment storage, cleaning, and maintenance;
- Prevent or reduce discharges of liquid, hazardous, or special wastes from impacting stormwater by providing proper storage areas with secondary containment precautions; and
- Perform vehicle and equipment maintenance off site or in designated areas, provide cover for material stored outside, check for leaks and spills, and designate fueling areas.

Stormwater management on the project site during and after construction would be specified in the project's Storm Water Pollution Prevention Plan (SWPPP), which would be required for the NPDES General Construction Permit. The SWPPP would provide a process for the control and minimization of polluted water runoff from the site in compliance with applicable regulatory permitting authorities.

The proposed project could result in impacts to surface water quality from construction-related impacts that would be reduced to a less-than-significant level with implementation of the BMPs described above and the following mitigation measure. Implementation of this mitigation measure would not result in any new environmental impacts beyond those identified in this Draft EIR.

Impact **Construction and operation of the proposed project could result in an impact to surface water quality. *This is potentially a significant impact that would be reduced to a less-than-significant level with the following mitigation.***

Mitigation

4.8-2 In order to avoid potential impacts to water quality during construction activities, the project applicant/developer shall prepare a Storm Water Pollution Prevention Plan and an Erosion Control Plan and obtain a National Pollution Discharge Elimination System Program Construction General Permit from the State Water Resources Control Board and, prior to the issuance of a grading permit. Specific requirements regarding erosion control are detailed in mitigations 4.6-3, 4, and 5 in **Section 4.6 Geology, Soils, and Mineral Resources** of this Draft EIR.

Groundwater

The project does not propose any wells on the site. Water supply and service would be provided by the California American Water Company. The project would not substantially deplete groundwater supplies based upon a number of factors including comparison of water demand from previous documented uses on the site as discussed in **Section 4.14 Utilities and Service Systems. Section 4.14, Utilities and Service Systems**, provides the discussion of water services and potential impacts to groundwater resources and groundwater recharge.

Cumulative Impacts

The geographic area for this cumulative analysis includes the local vicinity of the project site including the watershed of the proposed project site. Development of the project, in conjunction with present and probably future projects listed in **Table 5.2-1** would result in additional surface runoff volumes and rates from impervious surfaces and decreasing recharge rates that may contribute to cumulative impacts. Cumulative development would increase the amount of impervious surfaces, thereby increasing runoff rates and decreasing recharge rates in the area. The Carmel Area Land Use Plan, as well as local and regional General Plans and policies, require the development of appropriate drainage facilities, maintenance of pre-project run-off levels, mitigation of construction related drainage impacts, and upgrading existing inadequate drainage facilities.

At a project-level, adequate drainage facilities, as well as hydrology and water quality policies of the Carmel Area Land Use Plan, Regional Water Quality Control Plan and Coastal Implementation Plan, and the mitigation measures identified in the Draft EIR, would minimize drainage impacts to a less-than-significant level and would not be cumulatively considerable. The implementation of these plans would avoid offsite, cumulative water quality impacts since run-off is required to be contained on-site or metered at pre-project levels. The project, therefore, would not contribute to cumulative hydrological impacts.

Cumulative development and increases in localized runoff could increase urban pollutants into the drainage system and receiving water bodies, impacting water quality. The project proposes BMPs, an engineered on-site drainage system, and use of permeable materials in order to allow infiltration and removal of heavy metals and other pollutants from storm water before it enters the groundwater. Abidance with these measures would avoid off site, cumulative water quality impacts. ***The project would therefore have a less-than-significant cumulative impact on hydrology and water quality.*** **Section 4.14 Utilities and Service Systems** provides the discussion of potential cumulative impacts to groundwater resources.

4.9 LAND USE AND PLANNING

Introduction

The following section analyzes the project's land use effects, specifically its consistency with applicable plans and zoning ordinances, including the Monterey County General Plan, Carmel Area Land Use Plan (LUP), Monterey County Coastal Implementation Plan, and other relevant planning documents.

Setting

The 3.68-acre project site, consisting of three privately-owned parcels (APNs: 009-061-002, 009-061-003, 009-061-005), is located west of Highway 1 within the unincorporated coastal zone of Monterey County that borders the City of Carmel-by-the-Sea. Highway 1, the major north-south transportation route along the Central Coast, passes through the Carmel area, linking it to other cities on the Monterey Peninsula and Santa Cruz County to the North.

According to the County of Monterey General Plan and City of Carmel-by-the-Sea General Plan, the project site is bordered by Highway 1 on its eastern boundary as well as areas of medium density residential zoning east, south, and north of the project site with the Monterey County unincorporated coastal zone. Valley Way, a County-maintained road, borders the project at its southern extent. The northwest portion of the project site immediately borders a residential area of Carmel-by-the-Sea. **Figure 3.5** displays the project site and surrounding land uses.

The project's implementation would include approval of a Carmel Area Land Use Designation Amendment and a Coastal Implementation Plan Zoning Amendment, as highlighted below:

Carmel Area Land Use Plan Amendment: Change of land use designation from existing Medium Density Residential to proposed new designation for the area, High Density Residential.

Coastal Implementation Plan (Zoning Code) Amendment: Rezoning of existing of MDR/2 (Medium Density Residential/2 units per acre to a proposed HDR/12.5 (High Density Residential/12.5 units per acre) zoning designation in the Coastal Zone.

Regulatory Environment

Monterey County General Plan. The Monterey County General Plan provides policies regarding residential development. The following policies are applicable to the project site and the proposed project. Project consistency for each policy is analyzed in **Table 4.9-1**.

Policy 26.1.1 The County, in coordination with the cities, shall manage the type, location, timing, and intensity of growth in the unincorporated area.

Policy 26.1.2 The County shall discourage premature and scattered development.

Policy 26.1.3 The County shall designate adequate sites for a range of future land uses, ensuring balanced development of the County.

Policy 26.1.4 The County shall designate growth areas only where there is provision for an adequate level of services and facilities such as water, sewerage, fire and police protection, transportation, and schools.

Phasing of development shall be required as necessary in growth areas in order to provide a basis for long-range services and facilities planning.

Policy 26.1.4.3 A standard tentative subdivision map and/or vesting tentative and/or Preliminary Project Review Subdivision map application for either a standard or minor subdivision shall not be approved until:

- (1) The applicant provides evidence of an assured long-term water supply in terms of yield and quality for all lots which are to be created through subdivision. A recommendation on the water supply shall be made to the decision making body by the County's Health Officer and the General Manager of the Water Resources Agency, or their respective designees.
- (2) The applicant provides proof that the water supply to serve the lots meets both the water quality and quantity standards as set forth in Title 22 of the California Code of Regulations, and Chapters 15.04 and 15.08 of the Monterey County Code subject to the review and recommendation by the County's Health Officer to the decision making body.

Policy 26.1.5 The County shall designate future land uses in a manner which will achieve compatibility with adjacent uses.

Policy 26.1.6 Development which preserves and enhances the County's scenic qualities shall be encouraged.

Policy 26.1.8 Development in scenic road and highway corridors shall be governed by policies located in the transportation section of this General Plan.

Policy 26.1.11 The County shall encourage clustering in all development projects, where appropriate.

Policy 26.1.13 The County shall encourage infilling on vacant non- agricultural lands within existing developed areas and shall encourage new development within designated urban service areas. Infilling development shall be compatible with surrounding existing development.

Policy 26.1.18 Development proposals which are consistent with the land use plan designation may be denied due to factors including, but not limited to, lack of public facilities and services, infrastructure phasing problems, water availability and sewage problems, or presence of environmental and/or plan policy constraints which cannot be mitigated.

Policy 27.1.3 Residential development should be concentrated in growth areas.

Policy 27.1.4 If appropriate, high density residential areas shall be designated closest to urban areas or unincorporated communities.

Policy 27.2.1 Residential areas shall be located with convenient access to employment, shopping, recreation, and transportation. High density residential areas should also be located with convenient access to public transit.

Carmel Area Land Use Plan / Local Coastal Program. The Carmel Area Land Use Plan provides policies regarding residential development. The following policies are applicable to the project site and the proposed project. Project consistency for each policy is analyzed in **Table 4.9-1**.

Policy 4.4.3.D.1 Infilling of existing residential areas according to the resource and scenic protection standards set forth in this plan is preferred over new residential development elsewhere.

Policy 4.4.3.D.2. Medium-density residential development shall be directed to existing residential areas where urban services - water, sewers, roads, public transit, fire protection, etc. - are available. The density for new subdivision is two units per acre except for the Portola Corporation property in Carmel Meadows. As a condition of development, covenants must be recorded acknowledging agricultural use on the adjacent parcel and holding the owner (State) harmless for any nuisance due to the agricultural use.

Monterey County Zoning Ordinance. According to Title 20 (Coastal Zoning), the project site is zoned as MDR/2. The purpose of this zoning district is 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 developments. It is intended with this zoning district to have required on-site facilities and amenities to assure proper, usable, and livable development while allowing sufficient design flexibility to provide such development.

Monterey County Housing Element. The County of Monterey Housing Element is one of seven General Plan Elements mandated by California State Law. The housing element law, enacted in 1969, mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law acknowledges that, in order for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. The programs presented in the Housing Element must reflect the commitment of the locality to address a range of housing needs, including those for affordable housing. The Housing Element is intended to provide citizens and public officials with an understanding of the housing needs in the community and set forth an integrated set of policies and programs to attain housing goals. The County of Monterey Housing Element is consistent with California Government Code Section 65581.

The Housing Element is most affected by development policies contained in the Land Use Element of the General Plan. The Land Use Element establishes the location, type, intensity, and distribution of land uses throughout the County. The standards set in the Land Use Element determine the density of residential development and sets the upper limit for housing units that can be built in the County. The Land Use Element also addresses the development of other land uses, such as industrial, commercial, and professional offices that create demand for housing in the County.

Monterey County Inclusionary Housing Ordinance. The County's Inclusionary Housing Ordinance was originally adopted in 1980 and has been revised several times since that date. Ordinance No. 04185, adopted in 2003, now requires that 20% of all new development meet the County's affordable housing need either through provision of housing (either on or off-site) and/or payment of in-lieu fees and is applicable to the proposed development application.

California Coastal Act. The California Coastal Commission was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the California Coastal Act of 1976. The Coastal Commission, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. Development activities, which are broadly defined by the Coastal Act to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a coastal permit from either the Coastal Commission or the local government. As the proposed project would require California Coastal Commission approval, California Coastal Act policies and those policies identified in the Carmel Area LUP would be further considered when the proposed project is applied for California Coastal Commission approval.

Relevant Project Characteristics

The project proposes residential build-out of 46 condominium units on the project site in a developed area surrounded by residential uses.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- physically divide an established community;
- 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; or
- conflict with any applicable habitat conservation plan or natural community conservation plan.

Impacts and Mitigation

Physically Divide an Established Community

The project site is located within a residential neighborhood, and there are no business communities within the project area. The proposed residential use of the project site would be consistent with the surrounding neighborhood area of the project site and would not divide an established community. The project site is surrounded by a neighborhood primarily comprised of single-family residences with minimal undeveloped lots. The division or disruption of the physical arrangement of an established community typically involves actions that would create physical barriers that would substantially separate portions of a built community, such as the construction of a new road or freeway through an established neighborhood. Construction of the proposed project would not divide or disrupt the physical arrangement of an established community since there are no business districts located within the vicinity of the project site, and due to the fact that the nature of the proposed project, as residential build-out of a primarily abandoned property, would be compatible with the surrounding residential neighborhood. ***Therefore, the proposed project would not physically divide an existing established community.***

Conflict with Any Applicable Land Use Plan, Policy, or Regulation

The project would result in potential impacts associated with aesthetic, air quality, biological resources, cultural resources, geology, hazards, hydrology, noise, population & housing, public services, and traffic. These impacts are addressed within their respective sections of this DEIR. The following section addresses the conformance of the project with applicable land use policies and regulations, as well as policies and regulations intended to avoid or mitigate an adverse environmental impact. Relevant land use documents were reviewed to address project consistency, including the County of Monterey General Plan, Carmel Area Land Use Plan, Zoning Ordinance, Housing Element, and Inclusionary Housing Ordinance. The following discussion examines the proposed project's consistency with these documents and the project's conformance with land use plans, policies, or regulations.

Consistency with County of Monterey General Plan

Table 4.9-1 summarizes the project's consistency with County of Monterey land use policies. Project approval would conflict with several General Plan policies as identified throughout this DEIR.

Consistency with Carmel Area Land Use Plan /Local Coastal Program

The proposed development is required to be consistent with the plans, policies, requirements, and standards of the Local Coastal Program (LCP). The LCP for this site consists of the Carmel Area Land Use Plan, Carmel Area Coastal Implementation Plan (Part 4), and Part 1 of the Coastal Implementation Plan (Title 20 Zoning Ordinance). **Table 4.9-1** summarizes the project's consistency with the Carmel Area Land Use Plan / Local Coastal Program policies. The proposed project includes a LUP amendment to rezone the existing designation of MDR/2 (Medium Density Residential/2 units per acre) to proposed HDR/12.5 (High Density Residential/12.5 units per acre) in the Coastal Zone.

The proposed project would result in the addition of 46 residential units within the project area and could accommodate between 82 and 145 persons. Under the existing zoning, the site would allow for 7.36 units which potentially could accommodate 13 to 23 new persons. Therefore, implementation of the proposed project would result in an increase of 38 units beyond the total allowed on the project site under existing zoning.

High Density Residential (HDR): High Density Residential areas are appropriate for a broad range of higher intensity residential uses (5-20 units/acre) and a blend of housing types. Recreational, public/quasi-public, and other uses are incidental and subordinate to the residential use and character of the area. High density use is allowed in accordance with the site-specific evaluation of resource and public facility constraints, and where urban services - i.e., public water, sewer, roads, public transit, fire protection, etc. - are available. New development in these areas is designated at densities to allow a mix of housing types, including moderate to low income housing, in order to facilitate a comprehensively planned project. Direct access from Highway One shall not be allowed where alternative access is possible.

The project parcel is located in the Hatton Fields area of the Carmel Area Land Use Plan. This area is residential in character. The property is made up of three legal lots of record and abuts the City of Carmel-by-the-Sea boundary to the north, west, and south and Highway 1 on the east. Within the city limits, single family dwellings surround the project parcel. An apartment complex is west of the project parcel, located within the unincorporated County area. Parcels in this area average from 3,000 square feet to approximately one quarter of an acre. The Hatton Fields area has generally been developed to the extent that the natural environment has been significantly altered and that the residential use is perceived as the primary use of the land. The size, density, and character of this residential area vary; capacity is available to accommodate additional residential demand. Infilling of development is encouraged. In general, this area has adequate public services and facilities and has ready access to important commercial services located in the City of Carmel-by-the-Sea or at the mouth of Carmel Valley. Although there is currently no high density zoning in the Carmel Area Land Use Planning area, **Figure 4.9-1** presents the proposed project within the existing surrounding neighborhood, and demonstrates that the proposed density of the project is not substantially inconsistent with its surrounding area.

Consistency with County of Monterey Housing Element

The project would be consistent with the County of Monterey Housing Element by providing new residential housing within the Carmel area designated for residential development.



DWELLING COVERAGE - NEIGHBORHOOD

189 Residential Lots (AC) = 29.59
 178 Residential Lots Built Upon (AC) = 28.37
 Roof Footprint (SF) = 386419
 Roof Footprint (AC) = 8.87
 Ave. Density (SF/LOT) = 2171
 Lot Coverage Ratio = 31.3%

DWELLING COVERAGE - PROJECT

3 Residential Lots (AC) = 3.78
 Roof Footprint (SF) = 59930
 Roof Footprint (AC) = 1.38
 Ave. Density (SF/LOT) = 19977
 Lot Coverage Ratio = 36.5%

Source: The Warner Group, 2009

N ►

Dwelling Coverage

Figure
4.9-1

Consistency with County of Monterey Inclusionary Housing Ordinance

The project, as proposed, would be inconsistent with the County's Inclusionary Housing Ordinance, as it would not contribute 20% of all new development on site as affordable housing. The proposed project is composed of 46 residential units on the project site with 9 units designated as moderate income housing, which meets the 20% requirement. However, the project is inconsistent with the County's Inclusionary Housing Ordinance requirements as the Ordinance requires that of the 20% designated low income housing, 6% should be designated as very low, 6% designated as low, and 8% designated as moderate income housing.

Conclusion

Project development proposes amendments to the Local Coastal Plan (Carmel Area Land Use Plan), Carmel Area Coastal Implementation Plan (Part 4), and Part 1 of the Coastal Implementation Plan (Title 20 Zoning Ordinance), as discussed above. With the amendments, the project would be generally consistent with applicable land use policies and regulations pertaining to the development of the project site. If approved as it has been proposed, the project does not have the potential to result in conflicts with adopted land uses policies and regulations that are intended to avoid and/or mitigate an adverse environmental impact.

Pursuant to CEQA, a significant environmental effect must involve an adverse change in the existing physical condition of the site. As proposed, project development would result in minimal changes in the physical environment, such that development does not have the potential to conflict with adopted policies intended to avoid and/or mitigate an environmental impact. See **Table 4.9-1** for more information regarding the project's consistency with applicable General Plan and Local Coastal Program policies and regulations pertaining to the development of the project site. As seen in this table, some project elements are inconsistent with General Plan and Local Coastal Program policies, however these inconsistencies would not be in conflict with policies intended to avoid and/or mitigate environmental effects. *Therefore, as the proposed project would not conflict with policies intended to avoid and/or mitigate an environmental impact, the impact is considered to be less-than-significant.*

Conflict with Any Applicable Habitat or Natural Community Conservation Plan

There are no habitat or natural community conservation plans that apply to the project site. Therefore, the project will not conflict with any applicable Habitat or Natural Community Conservation Plans. An expanded discussion of this issue is provided in **Section 4.4, Biological Resources**. *The project would not adversely impact any habitat or natural community conservation plans.*

Cumulative Impacts

The geographic scope of this analysis is the local project vicinity as well as the Carmel Land Use Planning Area as designated by the Monterey County General Plan. If approved as it has been proposed, the project does not have the potential to result in conflicts with adopted land uses policies and regulations that are intended to avoid and/or mitigate an adverse environmental impacts and it would not result in any cumulative impacts to land use policies. Potential cumulative impacts associated with the project are addressed within the respective sections of this Draft EIR.

There are no other planned development projects in the project site's immediate vicinity within the Carmel Area Land Use Planning Area or within the City of Carmel-by-the-Sea that would, in consideration with the Villas de Carmelo Project, result in the intensification of development in the area. The Carmel Area Land Use Plan identified residential housing capacity of 148 units, at 2 units per acre on

656 acres, in the City of Carmel Vicinity and Carmel Meadows. The project proposes a land use plan amendment resulting in a higher density designation than what is currently allowed, resulting in increases of residential units and population for the project site. If other parcels in the Carmel Land Use Plan area are proposed for plan amendments or re-zoning related to a change to higher density, those actions would be subject to discretionary review and approvals.

Pending projects will require review under the appropriate regulatory authority for conflicts with respective plans prior to project approval. As shown on the referenced **Table 5.2-1**, there are no projects within the geographic scope of this analysis that propose land use plan amendments to increase residential density or residential development amendments to the Carmel Area Land Use Planning Area that would be considered cumulatively considerable. *Therefore, implementation of the proposed project would have a less-than-significant cumulative impact upon land use planning.*

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Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
GENERAL PLAN / AREA PLAN (LUP) – Visual Resources		
26.1.6	Development which preserves and enhances the County's scenic qualities shall be encouraged.	Project consistent. The project site is located in an existing residential area that has previously been developed. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology require landscape planting as screening to further ensure that the scenic quality of the project site is maintained.
26.1.8	Development in scenic road and highway corridors shall be governed by policies located in the transportation section of this General Plan.	Project inconsistent. The proposed project would result in a significant and unavoidable impact to a scenic corridor as discussed in Section 4.1 Aesthetics . Mitigation measures identified in Section 4.1 Aesthetics shall assist in reducing the project's impacts upon the scenic highway corridor.
26.1.20	All exterior lighting shall be unobtrusive and constructed or located so that only the intended area is illuminated, long range visibility is reduced, and offsite glare is fully controlled.	Project consistent. Mitigation measures identified in the Section 4.1 Aesthetics provide for downlighting, reduction in long range visibility and offsite glare and provide compliance with policies regarding exterior lighting.
40.2.1	Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.	Project consistent. The project, while in a designated scenic corridor, will place utilities underground, apply architectural and landscape controls via subsequent approvals, will provide for area for landscaping with native plants. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure that sensitive treatment provisions are applied to buildout of the project site.
40.2.2	Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density that, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.	Project consistent. The project site is located in an existing residential area, and has previously been developed with public uses. Mitigation measures identified in Section 4.1 Aesthetics for the proposed residential development on the site shall assist in reducing the project's impacts upon the scenic highway corridor.
2.2.2 (LUP)	To protect scenic resources of the Carmel area in perpetuity, all future development within the viewshed must harmonize and be clearly subordinate to the natural scenic character of the area. All categories of public and private land use development including all structures, the construction of public and private roads, utilities, and lighting must conform to the basic viewshed policy of minimum visibility except where otherwise stated in the plan.	Project consistent. The project site is located in an existing residential area and has previously been developed with buildings and parking areas. Mitigation measures identified in Section 4.1 Aesthetics would minimize impacts associated with the existing visual character of the site and its surroundings.
2.2.3.6 (LUP)	Structures shall be subordinate to and blended into the environment, using appropriate materials to that effect. Where necessary, modification of plans shall be required for siting, structural design, color, texture, building materials, access, and screening.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics shall insure compliance with policies regarding siting, structural design, color, texture, building materials, access, and screening in order to insure that buildout of the project site blends into its surroundings.

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
2.2.3.7 (LUP)	Structures shall be located and designed to minimize tree removal and grading for the building site and access road. Where earth movement would result in extensive slope disturbance or scarring visible from public viewing points and corridors, such activity will not be allowed. Extensive landform alteration shall not be permitted.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics , Section 4.4 Biology , and Section 4.6 Geology shall insure compliance with policies regarding tree removal and grading.
2.2.3.8 (LUP)	Landscape screening and restoration shall consist of plant and tree species consistent with the surrounding vegetation. Screening on open grassy slopes and ridges should be avoided.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure that landscape screening and restoration shall consist of plant and tree species consistent with the surrounding vegetation.
2.2.4.1 (LUP)	All applications for development within the viewshed shall require individual on-site investigations. The dimensions, height, and rooflines of proposed buildings shall be accurately indicated by poles and access roads by stakes with flags.	Project consistent. The project site was 'staked and flagged' to convey dimensions, height, and rooflines of proposed buildings. Photographs of the project site with the staking and flagging of proposed buildout are included in Section 4.1 Aesthetics .
2.2.4.6 (LUP)	The existing forested corridor along Highway 1 shall be maintained as a scenic resource and natural screen for existing and new development. New development along Highway 1 shall be sufficiently set back to preserve the forested corridor effect and minimize visual impact.	Project consistent. The majority of trees proposed to be removed from the project site are located in areas not clearly visible from Highway 1. Further, mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure compliance with policies regarding development within scenic highway corridors.
2.2.4.10 (LUP)	<p>The following siting and design control measures shall be applied to new development to ensure protection of the Carmel area's scenic resources, including shoreline and ocean views:</p> <ol style="list-style-type: none"> On ridges, buildings shall be sufficiently set back from the precipice to avoid silhouetting and to be as visually unobtrusive as possible. Buildings located on slopes shall be sited on existing level areas and sufficiently set back from the frontal face. Buildings should not be located on slopes exceeding 30 percent, except when all other plan guides are met and siting on slopes over 30 percent better achieves siting consistent with the policies of the plan. Where clustering of new residential or visitor-serving development will preserve desirable scenic and open space areas or enable structures to be sited out of the viewshed, it shall be preferred to more dispersed building site plans. Structures located in the viewshed shall be designed so that they blend into the site and surroundings. The exterior of buildings must give the general appearance of natural materials (e.g., buildings should be of weathered wood or painted in "earth" tones). The height and bulk of buildings shall be modified as necessary to protect the viewshed. Exterior lighting shall be adequately shielded or shall be designed at near-ground level and directed downwards to reduce its long-range visibility. Existing trees and other native vegetation should be retained to the maximum 	<p>Project consistent. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology are identified to reduce project impacts.</p> <ol style="list-style-type: none"> The project site is not located on a ridge or on an area exceeding 30 percent slopes. Project design would be clustered in order to limit impacts to the scenic quality and viewshed of the project site. Project buildout would include design of buildings to blend into the surrounding area as much as possible. Exterior lighting shall be designed in order to reduce its long-range visibility. Existing trees on the project site will be retained to the maximum extent possible and landscape screening would be compatible with the scenic character of the project area.

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
	extent possible both during the construction process and after the development is completed. Landscape screening may be used wherever a moderate extension of native forested and chaparral areas is appropriate. All new landscaping must be compatible with the scenic character of the area and should retain existing shoreline and ocean views.	
GENERAL PLAN / AREA PLAN (LUP) – Air Quality		
20.1.1	The County's land use and development policies shall be integrated and consistent with the natural limitations of the County's air basin.	Project consistent. The proposed project's potential impact upon the County's air basin is discussed in Section 4.3 Air Quality .
20.1.3	The County should develop and implement, where appropriate, a roadside tree program and should encourage and maintain vegetated/forested areas to the maximum extent feasible, for their air purifying functions.	Project consistent. Trees will be retained and replanted on the project site to the maximum extent possible. See discussion and mitigation measures in Section 4.1 Aesthetics and Section 4.4 Biology .
20.2.2	The County shall adopt and support, at a minimum, the Air Quality Plan for the Monterey Bay Region as prepared by AMBAG.	Project consistent. The proposed project's potential impact upon the air quality is discussed in Section 4.3 Air Quality .
20.2.5	The County shall encourage the use of the best available control technology as defined in the most current Monterey Bay Unified Air Pollution Control District rules and regulations in reducing air pollution emissions.	Project consistent. Construction activities will be required to use best available control technologies as outlined in mitigation measures in Section 4.3 Air Quality .
38.1.1	The County shall support the implementation of measures for reducing air pollution from transportation sources.	Project consistent. The project site is located within the reasonable vicinity of public transportation options, thereby posing a possible reduction in personal vehicles. See discussion in Section 4.13 Traffic .
GENERAL PLAN / AREA PLAN (LUP) – Biology		
7.1.1	Development shall be carefully planned in, or adjacent to, areas containing limited or threatened plant communities, and shall provide for the conservation and maintenance of the plant communities.	Project consistent. No limited or threatened plant communities defined as ESHA by the Carmel Area LUP will be impacted by development of the project site. See discussion in Section 4.4 Biological Resources .
7.2.2	Native and native compatible species, especially drought resistant species, shall be utilized to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure that landscape screening and restoration shall consist of plant and tree species consistent with the surrounding vegetation.
2.3.3.2 (LUP)	Land uses adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.	Project consistent. No limited or threatened plant communities defined as ESHA by the Carmel Area LUP will be impacted by development of the project site. See discussion in Section 4.4 Biological Resources .
2.3.3.3	New development adjacent to environmentally sensitive habitat areas shall be allowed	Project consistent. No limited or threatened plant communities defined

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
(LUP)	only at densities compatible with the protection and maintenance of the adjoining resources. New subdivisions shall be approved only where potential impacts to environmentally sensitive habitats from development of proposed parcels can be avoided.	as ESHA by the Carmel Area LUP will be impacted by development of the project site. See discussion in Section 4.4 Biological Resources .
2.3.3.5 (LUP)	Where private or public development is proposed in documented or expected locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. I - field surveys by qualified individuals or agency shall be required in order to determine precise locations of the habitat and to recommend mitigating measures to ensure its protection. This policy applies to the entire segment except the internal portions of Carmel Woods, Hatton Fields, Carmel Point (Night heron site excluded), Odello, Carmel Meadows, and Carmel Riviera. If any habitats are found on the site or within 100 feet from the site, the required survey shall document how the proposed development complies with all the applicable habitat policies.	Project consistent. The project site has been surveyed for habitat and mitigation measures proposed for impacts to species to ensure protection, consistent with this policy. No limited or threatened plant communities defined as ESHA by the Carmel Area LUP will be impacted by the project or are immediately adjacent to the site. See discussion in Section 4.4 Biological Resources .
2.3.3.7 (LUP)	Where development is permitted in or adjacent to environmentally sensitive habitat areas, the County, through the development review process, shall restrict the removal of indigenous vegetation and land disturbance (grading, excavation, paving, etc.) to that needed for the structural improvements themselves.	Project consistent. The project site is located in an existing residential area, and has previously been developed. No limited or threatened plant communities defined as ESHA by the Carmel Area LUP is present within or immediately adjacent to the site. Also, see mitigations in Section 4.4 Biological Resources for restrictions on land disturbance.
2.3.3.8 (LUP)	The County shall require the use of appropriate native species in proposed landscaping.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure that landscape screening and restoration shall consist of plant and tree species consistent with the surrounding vegetation.
2.3.4.8 (LUP)	The County should work with landowners or other public agencies (such as the Coastal Conservancy), as the need arises, to protect both significant stands of Monterey pine and coast redwood forest through permanent conservation easements, deed restrictions, or, where necessary, fee acquisition.	Project consistent. No limited or threatened plant communities defined as ESHA by the Carmel Area LUP is present within or immediately adjacent to the site. However, mitigation measures have been included to minimize potential impacts from tree removal on the project site. See discussion in Section 4.4 Biological Resources .
2.5.3.2 (LUP)	All cutting or removal of trees shall be in keeping with the broad resource protection objectives of this plan. Specific policies, criteria, and standards of other sections of this plan shall govern both commercial and noncommercial tree removal.	Project consistent. Mitigation measures have been included to minimize potential impacts from tree removal on the project site. See discussion in Section 4.4 Biological Resources .
2.5.3.3 (LUP)	Restoration of native forest resources is encouraged for public agencies and residents as a means of maintaining and enhancing the Carmel area's natural character. Removal of non-native tree species is encouraged except where such vegetation provides important wildlife habitat.	Project consistent. Mitigation measures have been included to minimize potential impacts from tree removal on the project site. See discussion in Section 4.4 Biological Resources .
2.5.3.8 (LUP)	In addition to compliance with forestry and soils resources policies, all developments, forest management activities, and tree removal shall specifically conform to the LAP policies regarding water and marine resources, sensitive habitat area, and coastal visual	Project consistent. Mitigation measures have been included to minimize potential impacts from tree removal on the project site and to minimize potential impacts to other LCP policies. See discussion in

Table 4.9-1**Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies**

Policy Number	Policy Summary	Consistency
	resources.	Section 4.4 Biological Resources.
GENERAL PLAN / AREA PLAN (LUP) – Cultural Resources		
12.1.3	All proposed development, including land divisions, within high sensitivity zones shall require an archaeological field inspection prior to project approval.	Project consistent. An archaeological field inspection was conducted on the project site. See discussion in Section 4.5 Cultural Resources.
12.1.4	All major projects (i.e., 2.5 acres or more) that are proposed for moderate sensitivity zones, including land divisions, shall require an archaeological field inspection prior to project approval.	Project consistent. An archaeological field inspection was conducted on the project site. See discussion in Section 4.5 Cultural Resources.
12.1.6	Where development could adversely affect archaeological resources, reasonable mitigation procedures shall be required prior to project approval.	Project consistent. Mitigation measures have been included to minimize potential impacts to buried or unearthed cultural/archaeological resources. See discussion in Section 4.5 Cultural Resources.
12.1.7	All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, consideration of reasonable project alternatives, etc., shall be explored to avoid development on sensitive archaeological sites.	Project consistent. The project site's archaeological field inspection did not conclude the site to be a sensitive archaeological site. See discussion in Section 4.5 Cultural Resources.
52.1.3	The County shall work with property owners to mitigate the destruction or alteration of historic resources by zoning identified historic sites as "HR" or Historic Resources zones. The "HR" reclassification would be implemented as follows: <ul style="list-style-type: none"> • Either at the time of requests for demolition or alteration of the resource, or • At the time of mutual agreement between the County and the property owner to preserve that historic resource. 	Project consistent. Preservation of the project site's historical resource integrity is a goal of the propose project. See discussion in Section 3.0 Project Description and Section 4.5 Cultural Resources.
52.1.5	The County shall support any such tax incentive, mutual covenants, protective covenants, purchase options, preservation easements, building, fire, health and County code modifications and any other methods deemed mutually agreeable between County and landowner, which will help to preserve historic resources.	Project consistent. See discussion in Section 3.0 Project Description and Section 4.5 Cultural Resources.
52.1.6	The County shall, through monies acquired from grants, donations, and other revenue sources, provide funds for the restoration and enhancement of historic resources.	Project consistent. See discussion in Section 3.0 Project Description and Section 4.5 Cultural Resources.
2.8.3.1 (LUP)	Monterey County shall encourage the timely identification and evaluation of archaeological, historical, and paleontological resources in order that these resources are given consideration during the conceptual design phase of land-use planning or project development.	Project consistent. Preservation of the project site's historical resource integrity is a goal of the propose project. See discussion in Section 3.0 Project Description and Section 4.5 Cultural Resources.
2.8.3.2 (LUP)	Whenever development is to occur in the coastal zone, the Archaeological Site Survey Office or other appropriate authority shall be contacted to determine whether the property has received an archaeological survey. If not and the parcel are in an area of	Project consistent. An archaeological field inspection was conducted on the project site. The project site's archaeological field inspection did not conclude the site to be a sensitive archaeological site. See

Table 4.9-1**Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies**

Policy Number	Policy Summary	Consistency
	high archaeological sensitivity, such a survey shall be conducted to determine if an archaeological site exists. The Archaeological Survey should describe the sensitivity of the site and recommend appropriate levels of development and mitigation consistent with the site's need for protection.	discussion in Section 4.5 Cultural Resources .
2.8.3.3 (LUP)	All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, etc., shall be explored to avoid development on sensitive prehistoric or archaeological sites.	Project consistent. The project site's archaeological field inspection did not conclude the site to be a sensitive archaeological site. See discussion in Section 4.5 Cultural Resources .
2.8.3.4 (LUP)	When developments are proposed for parcels where archaeological or other cultural sites are located, project design shall be required which avoids or substantially minimizes impacts to such cultural sites. To this end, emphasis should be placed on preserving the entire site rather than on excavation of the resource, particularly where the site has potential religious significance.	Project consistent. The project site's archaeological field inspection did not conclude the site to be a sensitive archaeological site. Preservation of the project site's historical resource integrity is a goal of the propose project. See discussion in Section 3.0 Project Description and Section 4.5 Cultural Resources .
2.8.3.5 (LUP)	Archaeological surveys shall be required for all new subdivisions and for all other development within close proximity of known sites. Such surveys shall be performed by qualified individuals.	Project consistent. An archaeological field inspection was conducted on the project site. See discussion in Section 4.5 Cultural Resources .
2.8.4.5 (LUP)	No development proposals in archaeologically sensitive areas shall be categorically exempt from environmental review.	Project consistent. The project site's archaeological field inspection did not conclude the site to be a sensitive archaeological site. See discussion in Section 4.5 Cultural Resources .
2.8.4.6 (LUP)	When other site planning constraints do not permit avoidance of construction on archaeological or other types of cultural sites, adequate preservation measures shall be required. Mitigation shall be designed in accord with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission.	Project consistent. Preservation of the project site's historical resource integrity is a goal of the propose project. See discussion in Section 3.0 Project Description and Section 4.5 Cultural Resources .
GENERAL PLAN / AREA PLAN (LUP) – Geology & Soils		
3.1.1	Erosion control procedures shall be established and enforced for all private and public construction and grading projects.	Project consistent. An Erosion Control Plan has been prepared and would be adhered to during project buildout. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.7.3.1 (LUP)	All development shall be sited and designed to minimize risk from geologic, flood, or fire hazards. Areas of a parcel which are subject to high hazard(s) shall generally be considered unsuitable for development. For any development proposed in high hazard areas, an environmental or geotechnical report shall be required prior to County review of the project. These reports must include a demonstration that all the criteria in the applicable following policies are complied with and recommendations for mitigation measures (if mitigation is possible) consistent with the following policies. All recommended mitigation measures contained in the reports are to be County requirements (i.e., conditions of Coastal permits).	Project consistent. The project site is not located in an area considered as a high hazard area. A geotechnical report was prepared in regards to the proposed project. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .

Table 4.9-1
Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
2.7.3.4 (LUP)	In locations determined to have significant hazards, I development permits shall include a special condition requiring the owner to record a deed restriction describing the nature of the hazard(s), geotechnical, and/or fire suppression mitigations and, where appropriate, long-term maintenance requirements.	Project consistent. Project site is not located in an area deemed to have significant hazards present. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.7.4.1 (LUP)	All development shall be sited and designed to conform to site topography and to minimize grading and other site preparation activities. Applications for grading and building permits and applications for subdivisions shall be reviewed for potential impacts to onsite and offsite development arising from geologic and seismic hazards and erosion. Mitigation measures shall be required as necessary.	Project consistent. Mitigation measures identified in Section 4.6 Geology, Soils, and Mineral Resources shall insure compliance with policies regarding conforming to site topography and minimizing grading on the project site.
2.7.4.2 (LUP)	All structures shall be sited a minimum of 50 feet from an identified active fault or potentially active fault. Greater setbacks may be required where it is warranted by local geologic conditions.	Project consistent. The project site's geological fault analysis concluded that the project site is not located within the immediate vicinity of a potentially active fault. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.7.4.5 (LUP)	Soils and geologic reports shall be required for all new land divisions and for the construction of roads and structures, excluding minor structures not occupied by people, on slopes exceeding 30 percent or in areas of known or suspected geologic hazards. Both potential onsite and offsite impacts shall be evaluated in the report.	Project consistent. A soils and geologic report was prepared in regards to the proposed project. For further discussion see Appendix G .
2.7.4.6 (LUP)	Where geotechnical evaluation determines that the hazard is unlikely to lead to property damage or injury, construction is permissible if certified by a registered geologist/soils engineer that the proposed development will not result in an unacceptable risk of injury or structural damage and the County building official and Environmental Review Section concurs. Such certification will be recorded with a copy of the deed at the County Recorder's Office.	Project consistent. Mitigation measures identified in Section 4.6 Geology, Soils, and Mineral Resources shall insure compliance with policies regarding minimizing potential geological hazards on the project site.
2.7.4.7 (LUP)	Where soils and geologic reports are required, they should include a description and analysis of the following items: For development proposed in all areas <ul style="list-style-type: none"> a) geologic conditions, including soil, sediment, and rock types and characteristics, in addition to structural features, such as bedding, joints and faults; b) evidence of past or potential landslide conditions, the implications of such conditions for the proposed development, and the potential effects of the development on landslide activity; c) impact of construction activity on the stability of the site and adjacent area; d) ground and surface water conditions and variations, including hydrologic changes caused by the development. (i.e., introduction of sewage effluent and irrigation water to the ground water system; alterations in surface 	Project consistent. A soils and geologic report addressing the required areas was prepared in regards to the proposed project. For further discussion see Appendix G .

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
	<p>drainage);</p> <p>e) potential erodibility of site and mitigating measures to be used to minimize erosion problems during and after construction (i.e., landscaping and drainage design);</p> <p>f) potential effects of seismic forces resulting from a maximum credible earthquake;</p> <p>g) any other factors that might affect slope stability.</p>	
2.7.4.9 (LUP)	As new soils and geologic investigations are completed and received by the County, the information contained therein shall be recorded and become part of the public record. Where appropriate, the results of such studies will be incorporated into the environmental review or planning process, as supplements or supersedes, to the more general information found in the Seismic Safety Element.	Project consistent. A soils and geologic report addressing the required areas was prepared in regards to the proposed project. For further discussion see Appendix G .
2.4.4.1 (LUP)	All grading requiring a County permit which would occur on slopes steeper than 15 percent shall be restricted to the dry season of the year.	Project consistent. Mitigation measures identified in Section 4.6 Geology, Soils, and Mineral Resources shall insure compliance with policies regarding timing of grading on slopes steeper than 15 percent on the project site.
2.4.4.3 (LUP)	Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with the initial grading operations and maintained through the development process to remove sediment and run-off waters. All sediment should be retained onsite.	Project consistent. An Erosion Control Plan, which includes use of sediment basins, has been prepared and would be adhered to during project buildout. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.4.4.4 (LUP)	The native vegetation cover, temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as soon as possible with planting of native annual grasses and shrubs, appropriate non-native plants, or with approved landscaping practices.	Project consistent. An Erosion Control Plan, which includes use stabilization methods, has been prepared and would be adhered to during project buildout. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.4.4.5 (LUP)	Provisions shall be made to conduct, surface water to storm drains or suitable watercourses to prevent erosion. Onsite drainage devices shall be designed to accommodate increased run-off resulting from site modification. Where appropriate, on-site retention of stormwater should be required.	Project consistent. An Erosion Control Plan and Preliminary Stormwater Management Plan have been prepared and would be adhered to during project buildout and implementation. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources and Section 4.8 Hydrology & Water Quality .
GENERAL PLAN / AREA PLAN (LUP) –Hydrology & Water Quality		
17.3.13 (LUP)	Drainage details for the road or driveway shall conform to current engineering practices, including erosion control measures.	Project consistent. An Erosion Control Plan and Preliminary Stormwater Management Plan have been prepared and would be adhered to during project buildout and implementation. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources and Section 4.8 Hydrology & Water Quality .

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
2.4.3.2(LUP)	New development including access roads shall be sited, designed, and constructed to minimize runoff, erosion, and resulting sedimentation. Land divisions shall be designed to minimize the need to clear erodable slopes during subsequent development. Runoff volumes and rates should be maintained at pre-development levels, unless provisions to implement this result in greater environmental damage.	Project consistent. An Erosion Control Plan and Preliminary Stormwater Management Plan have been prepared and would be adhered to during project buildout and implementation. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources and Section 4.8 Hydrology & Water Quality .
2.4.4.3 (LUP)	Sediment basins (e.g., debris basins, desilting basins, or silt traps) shall be installed in conjunction with the initial grading operations and maintained through the development process to remove sediment and run-off waters. All sediment should be retained onsite.	Project consistent. An Erosion Control Plan, which includes use of sediment basins, has been prepared and would be adhered to during project buildout. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.4.4.4 (LUP)	The native vegetation cover, temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as soon as possible with planting of native annual grasses and shrubs, appropriate non-native plants, or with approved landscaping practices.	Project consistent. An Erosion Control Plan, which includes use of stabilization methods, has been prepared and would be adhered to during project buildout. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources .
2.4.4.5 (LUP)	Provisions shall be made to conduct, surface water to storm drains or suitable watercourses to prevent erosion. Onsite drainage devices shall be designed to accommodate increased run-off resulting from site modification. Where appropriate, on-site retention of stormwater should be required.	Project consistent. An Erosion Control Plan and Preliminary Stormwater Management Plan have been prepared and would be adhered to during project buildout and implementation. For further discussion, see Section 4.6 Geology, Soils, and Mineral Resources and Section 4.8 Hydrology & Water Quality .
3.2.3.3 (LUP)	The County should require new development in the Cal-Am service area to employ water conservation techniques to the greatest possible extent. This would include, among other things, use of water-saving fixtures, retention of native vegetation, and use of drought-tolerant landscaping.	Project consistent. The proposed project would include design measures intended to limit use of water resources associated with the project. See Section 3.0 Project Description and Section 4.4 Biology .
GENERAL PLAN / AREA PLAN (LUP)– Land Use		
26.1.1	The County, in coordination with the cities, shall manage the type, location, timing, and intensity of growth in the unincorporated area.	Project consistent. The proposed project, located in the unincorporated area of the County, has been submitted to the Monterey Country Planning Department for review and approval.
26.1.2	The County shall discourage premature and scattered development.	Project consistent. The proposed project is residential in-fill development, proposing development on a primarily abandoned lot. For further discussion, see Section 3.0 Project Description .
26.1.3	The County shall designate adequate sites for a range of future land uses, ensuring balanced development of the County.	Project consistent. The proposed project has been submitted to the Monterey Country Planning Department for review and approval, thus determining if approval of the project would contribute to balanced development within the County.
26.1.4	The County shall designate growth areas only where there is provision for an adequate level of services and facilities, such as water, sewerage, fire and police protection,	Project consistent. The proposed project has been submitted to the Monterey Country Planning Department for review and approval and is

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
	transportation, and schools. Phasing of development shall be required as necessary in growth areas in order to provide a basis for long-range services and facilities planning.	evaluating the applicability of the proposed project in relation to long range public services and facilities planning. See Section 4.12 Public Services and Section 4.14 Utilities .
26.1.4.3	<p>A standard tentative subdivision map and/or vesting tentative and/or Preliminary Project Review Subdivision map application for either a standard or minor subdivision shall not be approved until:</p> <ol style="list-style-type: none"> (1) The applicant provides evidence of an assured longterm water supply in terms of yield and quality for all lots which are to be created through subdivision. A recommendation on the water supply shall be made to the decision making body by the County's Health Officer and the General Manager of the Water Resources Agency, or their respective designees. (2) The applicant provides proof that the water supply to serve the lots meets both the water quality and quantity standards as set forth in Title 22 of the California Code of Regulations, and Chapters 15.04 and 15.08 of the Monterey County Code subject to the review and recommendation by the County's Health Officer to the decision making body. 	Project consistent. A vesting tentative map has been submitted by the project applicant within the project's application for review and approval by the Monterey County Planning Department. Additionally, the applicant has provided evidence of available water allotment credits for the project site considering its past historical uses. See Section 4.14 Utilities .
26.1.5	The County shall designate future land uses in a manner that will achieve compatibility with adjacent uses.	Project consistent. Proposed rezoning of the project site, while increasing density allowed on the project site, would not be incompatible with surrounding land uses as residential development is proposed within a residential area.
26.1.6	Development which preserves and enhances the County's scenic qualities shall be encouraged.	Project inconsistent. Consideration of potential significant impacts to the County's scenic qualities from the proposed project has been included with mitigation measures in Section 4.1 Aesthetics .
26.1.8	Development in scenic road and highway corridors shall be governed by policies located in the transportation section of this General Plan.	Project consistent. Consideration of the project site's location within a scenic highway corridor has been included with mitigation measures in Section 4.1 Aesthetics .
27.1.3	Residential development should be concentrated in growth areas.	Project inconsistent. While the proposed project would be infill of a primarily abandoned lot located within a residential neighborhood, the Carmel area is not considered to be an area of future growth within Monterey County.
27.1.4	If appropriate, high density residential areas shall be designated closest to urban areas or unincorporated communities.	Project consistent. The proposed rezoning of the project site to a use of high density residential would establish a high density residential area close to an urban area, the City of Carmel-by-the-Sea.
27.2.1	Residential areas shall be located with convenient access to employment, shopping, recreation, and transportation. High density residential areas should also be located with convenient access to public transit.	Project inconsistent. Although the proposed project would establish residents within convenient access to employment, shopping, recreation, and transportation, the nearest Monterey Salinas Transit bus

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
		station is located greater than 0.5 miles southwest of the project site at the intersection of 6 th Avenue and Mission Street in the City of Carmel-by-the-Sea, which is not considered convenient access to public transit by various rating systems.
4.4.3D.1 (LUP)	Infilling of existing residential areas according to the resource and scenic protection standards set forth in this plan is preferred over new residential development elsewhere.	Project consistent. The proposed project would provide residential infill within an existing residential area.
4.4.3.D.2 (LUP)	Medium-density residential development shall be directed to existing residential areas where urban services -- water, sewers, roads, public transit, fire protection, etc. -- are available. The density for new subdivision is two units per acre except for the Portola Corporation property in Carmel Meadows. As a condition of development, covenants must be recorded acknowledging agricultural use on the adjacent parcel and holding the owner (State) harmless for any nuisance due to the agricultural use.	Project inconsistent. The Carmel Area Land Use Plan / Local Coastal Program does not distinguish the project's proposed rezoning to allow high density residential zoning on the project site. The project also proposes a density of 12.5 units per acre. However, the proposed project would be within an existing residential area where urban services exist and area available. Additionally, approval of the proposed project would allow for high density residential zoning in the Carmel Area Land Use Plan.
GENERAL PLAN / AREA PLAN (LUP)– Noise		
22.2.1	The County shall require new development to conform to the noise parameters established by Table 6, Land Use Compatibility for Exterior Community Noise Environments.	Project consistent. Development of the proposed project would not substantially increase noise levels such that they would exceed applicable County standards. For further discussion, see Section 4.10 Noise .
22.2.2	The County shall require the appropriate standards of soundproofing construction in all multiple-residential structures as specified in the Building Code.	Project consistent. Mitigation measures identified in Section 4.10 Noise shall ensure compliance with County requirements regarding minimizing construction-related noise impacts.
22.2.3	The County shall require environmental review of all proposed new development, expansion of industrial facilities, and quarry excavation and processing activities which may increase the noise level in surrounding areas or generate noise levels greater than those specified in Table 6.	Project consistent. An Acoustical Analysis and Noise Assessment were conducted with regards to the proposed project. For further discussion see Appendix J .
22.2.5	The County should require ambient sound levels to be less at night (10 p.m. to 7 a.m.) than during the day.	Project consistent. An Acoustical Analysis and Noise Assessment were conducted with regards to the proposed project and its potential to impact ambient noise levels. For further discussion see Appendix J .
GENERAL PLAN / AREA PLAN (LUP)– Population & Housing		
27.1.1	Sufficient areas for residential uses shall be designated consistent with the County's growth policies and projections.	Project consistent. The proposed residential development project would be located with a residential area of Monterey County.
27.1.3	Residential growth should be concentrated in growth areas.	Project inconsistent. While the proposed project would be infill of a

Table 4.9-1**Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies**

Policy Number	Policy Summary	Consistency
		primarily abandoned lot located within a residential neighborhood, the Carmel area is not considered to be an area of future growth within Monterey County.
27.1.4	If appropriate, high density residential areas shall be designated closest to urban areas or unincorporated communities.	Project consistent. The proposed rezoning of the project site to a use of high density residential would establish a high density residential area close to an urban area, the City of Carmel-by-the-Sea.
27.2.1	Residential areas shall be located with convenient access to employment, shopping, recreation, and transportation. High density residential areas should also be located with convenient access to public transport.	Project inconsistent. Although the proposed project would establish residents within convenient access to employment, shopping, recreation, and transportation, the nearest Monterey Salinas Transit bus station is located 0.62 miles southwest of the project site at the intersection of 6 th Avenue and Mission Street in the City of Carmel-by-the-Sea, which by most standards would not be considered convenient access to public transit.
4.4.3.E.1 (LUP)	Infilling of existing residential areas according to the resource and scenic protection standards set forth in this plan is preferred over new residential development elsewhere.	Project consistent. The proposed project would provide residential infill within an existing residential area.
GENERAL PLAN / AREA PLAN (LUP)- Public Services		
17.3.1	In no case shall a roadway be less than 12-feet wide. Determination of the width of an all-weather surface shall be made at the time of subdivision approval. Further, the County shall revise its subdivision ordinance to address road standards including minimum width, height clearance, gradient, and materials; these standards shall pertain to all new development. Minimum road widths of all new driveways, roads and streets shall be designed, constructed, and maintained according to adopted County Standards.	Project consistent. The proposed project's internal roadway and individual driveways of the buildings would be designed, constructed, and maintained according to adopted County Standards.
17.3.2	The County shall require the creation of road maintenance agreements for all new private subdivision roads.	Project consistent. A road maintenance agreement regarding the proposed project's internal roadway would be a condition of approval of the proposed project.
17.3.3	The County shall encourage all new development to be located within the response time of 15 minutes from the fire station responsible for serving the parcel. If this is not possible, on-site fire protection systems (such as fire breaks, fire-retardant building materials, and/or water storage tanks) approved by the fire jurisdiction must be installed or development may only take place at the lowest density allowed for the parcel by the General Plan.	Project consistent. The project site is within a 15 minute response time of the Carmel Hill Fire Station. See Section 4.12 Public Services .
17.3.4	The County shall require all new development to have adequate water available for fire suppression. Water availability can be provided from a conventional water system; from an approved alternative water system if within 300 feet of a habitable structure; by the fire fighting equipment of the fire district within which the property is located;	Project consistent. The project site has an existing connection to water supply and would have access to water for fire suppression if needed.

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
	or by an individual water storage facility — water tank, swimming pool, etc. – on the property itself. The fire and planning departments shall determine the adequacy and location of individual water storage to be provided.	
17.3.5	Water systems constructed, extended, or modified to serve a new land use or a change in land use or an intensification of land use shall be designed to meet, in addition to the average daily demand, the standards shown in Table 2, subject only to changes authorized pursuant to Policy Number 17.4.2.	Project consistent. The on-site water system of the proposed project would be designed to meet the average daily demand and Monterey County standards.
17.3.8	The maximum grade of the road shall not exceed 15 percent.	Project consistent. The maximum grade of the proposed project's internal road would not exceed 15 percent.
17.3.9	The road shall have an overhead clearance of 13 feet, 6 inches vertical distance for its entire width and length, including turnouts.	Project consistent. The proposed project's internal road, including turnouts, would meet Monterey County overhead clearance standards.
17.3.10	A road or driveway serving as access to any habitable structure shall not end farther than 150 feet from said structure. A turning area which meets the requirements of the fire department shall be provided at the end of the road.	Project consistent. The proposed project's internal road and driveways would meet fire department requirements.
17.3.11	Obstruction of the road width (Policy 17.3.1), including the parking of vehicles, shall be prohibited.	Project consistent. The proposed project's internal roadway and individual driveways of the buildings would be designed, constructed, and maintained according to adopted County Standards.
17.3.14	All access roads and driveways shall be maintained by the responsible parties to ensure the fire department safe and expedient passage at all times.	Project consistent. A road maintenance agreement regarding the proposed project's internal roadway would be a condition of approval of the proposed project.
17.3.15	Gates on emergency access roadways shall have a minimum width of 12 feet with the gate fully open.	Project consistent. The project site's existing access from Valley Way would be closed by the proposed project but remain as an emergency access entrance meeting Monterey County standards.
17.4.2	Every building, structure, and/or development shall be constructed to meet, at minimum, the requirements specified in Volume I of the current edition of the Uniform Building Code, Fire Hazards Policy 17.3.5, and Table 2 of this general plan. The chief of the fire agency having jurisdiction may recommend to the appropriate decision-making authority a variation of the general plan fire hazard policies and Table 2 (but not U.B.C. standards) for such development where, in his opinion, the fire safety of the County and adjoining and nearby properties and improvements is not materially impaired by such variation.	Project consistent. Buildout of the proposed project would be constructed to meet the requirements of the Uniform Building Code and Monterey County standards regarding fire hazards.
17.4.4	House numbers shall be posted on the property so as to be clearly visible from the road. Where visibility cannot be provided, a post or sign bearing the house numbers shall be set adjacent to the driveway or access road to the property. House numbers shall be posted when construction begins.	Project consistent. House/condo numbers would be posted on the project site as per Monterey County standards.
17.4.7	The County shall require all subdivisions, multi-unit residential complexes, and commercial and industrial complexes to obtain, prior to permit approval, a statement	Project consistent. As described in Section 4.12 Public Services , the fire department responsible for fire protection services to the project

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
	from the fire department that adequate structural fire protection is available within minimum response time established by this Plan.	site has stated that adequate structural fire protection is available with the required minimum response time.
GENERAL PLAN / AREA PLAN (LUP)– Traffic & Circulation		
37.2.1	Transportation demands of proposed development shall not exceed an acceptable level of service for existing transportation facilities, unless appropriate increases in capacities are provided for.	Project inconsistent. Implementation of the proposed project would exceed acceptable levels of service for surrounding existing transportation facilities. Mitigations measures are provided in Section 4.13 Traffic & Circulation .
37.4.1	The County shall encourage overall land use patterns, which reduce the need to travel.	Project consistent. Implementation of the proposed project would provide increased residential housing in an area with convenient access to urban areas, thereby reducing the need to travel for future residents.
37.5.1	The design and location of new development shall consider and incorporate provisions for appropriate transportation modes.	Project consistent. The design and location of the proposed new development has considered and incorporated provisions for appropriate transportation modes.
38.1.2	The effects of road noise on County roads and highways shall be mitigated to comply with all noise control policies of this General Plan.	Project consistent. The effects of road noise affiliated with the proposed project are discussed in Section 4.10 Noise .
38.1.5	Adequate traffic capacity shall be a criterion for development consideration.	Project consistent. Traffic capacity was found to be adequate for the proposed project, as discussed in Section 4.13 Traffic & Circulation .
39.1.1	All available public and private sources shall be used for the funding of road and highway development, improvement, and maintenance.	Project consistent. Funding sources that could be used for funding of road and highway improvement and maintenance with relation to the proposed project are discussed in Section 4.13 Traffic & Circulation .
39.1.2	The cost of new roads shall be borne as equitably as possible among benefiting property owners and/or users.	Project consistent. The only new road as a component of the proposed project is the internal project site road, which would be constructed as part of project buildout on the site.
39.1.4	New development shall be located where there is existing road and highway capacity or where adequate road and highway capacity will be provided.	Project consistent. Road and highway capacity were found to be adequate for the proposed project, as discussed in Section 4.13 Traffic & Circulation .
39.2.1	All new road and interior circulation systems shall be designed, developed, and maintained according to adopted County standards.	Project consistent. The proposed project's internal road shall be designed, developed, and maintained according to adopted County standards. A road maintenance agreement regarding the proposed project's internal roadway would be a condition of approval of the proposed project.
39.2.5	Driveways, mid-block access points, intersections, and on-street parking shall be limited along major roads and highways, where possible.	Project consistent. The project site's existing access to Highway 1, which is the only major road or highway immediately adjoining the project site, would be closed as a component of the proposed project.
40.2	Employ a cooperative planning effort among all public and private interests to	Project consistent. Mitigation measures identified in Section 4.1

Table 4.9-1

Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies

Policy Number	Policy Summary	Consistency
	implement appropriate land use techniques and controls for maintaining the scenic beauty and atmosphere of the scenic corridor.	Aesthetics shall insure compliance with policies regarding development within scenic highway corridors.
40.2.1	Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure that sensitive treatment provisions are applied to buildout of the project site.
40.2.2	Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density that, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.	Project consistent. Mitigation measures identified in Section 4.1 Aesthetics and Section 4.4 Biology shall insure that sensitive treatment provisions are applied to buildout of the project site.
3.1.3.7 (LUP)	The number of private roads and recreational access road entrances off Highway 1 should be limited whenever possible for traffic safety and management purposes.	Project consistent. The project site's existing access to Highway 1 would be closed as a component of the proposed project.
3.1.3.9 (LUP)	Major development projects - both residential and recreation and visitor-serving, including significant expansion of existing facilities - should be required to contribute their "fair-share" towards improvements of Highway 1 required as a result of traffic generated by the particular project.	Project consistent. Funding of road and highway improvement and maintenance with relation to the proposed project is discussed in Section 4.13 Traffic & Circulation .
GENERAL PLAN / AREA PLAN (LUP) – Utilities		
6.1.1	Increased uses of groundwater shall be carefully managed, especially in areas known to have ground water overdrafting.	Project consistent. The project site has retained entitlement to an existing water allocation and implementation of the proposed project would have less water demand than the allocation. See Section 4.14 Utilities .
6.1.2	Water conservation measures for all types of land uses shall be encouraged.	Project consistent. Water conservation measures, such as use of drought-resistant landscaping, have been included in the design of the proposed project.
53.1.4	New development shall be required to connect to existing water service providers which are public utilities, where feasible.	Project consistent. The project site is connected to an existing water service provider. See Section 4.14 Utilities .
2.4.4.A.1 (LUP)	New development shall be approved only where it can be demonstrated by the applicant that adequate water is available from a water utility or community system or an acceptable surface water diversion, spring, or well. At the County's discretion, applicants may be required to submit a hydrologic report certifying sustained yield of the water source to serve new development outside of existing water utility service areas.	Project consistent. The project site has retained entitlement to an existing water allocation and implementation of the proposed project would have less water demand than the allocation. See Section 4.14 Utilities .
2.4.4.A.2	As part of the permit process, the applicant must also demonstrate that the proposed new water use or use intensification will not adversely affect both the natural supply	Project consistent. The project site has retained entitlement to an existing water allocation and implementation of the proposed project

Table 4.9-1**Project Consistency with Relevant County of Monterey General Plan and Carmel Area Land Use Plan (LUP) Policies**

Policy Number	Policy Summary	Consistency
(LUP)	necessary to maintain the environment, including wildlife, fish, and plant communities, and the supply available to meet the minimum needs of existing users during the driest year. At the County's discretion, the applicant may be required to support his application through certification by a consultant deemed qualified by the County to make such determinations. The County will request that the Department of Fish and Game provide a written recommendation on each application.	would have less water demand than the allocation. See Section 4.14 Utilities.
2.4.4.A.5 (LUP)	Any diversion of surface sources of water shall be required to submit an approved water appropriation permit from the State Water Resources Control Board prior to approval of any coastal development permit except where such water appropriation permit is not required by applicable State law.	Project consistent. The project site has retained entitlement to an existing water allocation and implementation of the proposed project would have less water demand than the allocation. See Section 4.14 Utilities.
2.4.4.A.6 (LUP)	Water conservation devices shall be required in conjunction with new development. Drought tolerant landscaping should be required where appropriate. Construction of roads and driveways with pervious surfaces shall be encouraged where appropriate.	Project consistent. Water conservation measures, such as use of drought-resistant landscaping, have been included in the design of the proposed project.
3.2.3.1 (LUP)	The County shall reserve adequate water supply from its fair share allotment of Cal-Am water as approved by the Monterey Peninsula Water Management District to supply expansion of existing and development of new visitor-serving facilities permitted by the plan. Water must be first assured for coastal-priority visitor-serving facilities before allowing any new residential development other than infilling of existing vacant lots. In addition, 0.056 acre-feet/year of water is reserved for each visitor-serving unit permissible under this Plan.	Project consistent. The project site has retained entitlement to an existing water allocation and implementation of the proposed project would have less water demand than the allocation. See Section 4.14 Utilities.
3.2.3.2 (LUP)	The County should reserve from its allotment an additional supply through 1988 to serve residential development of existing vacant lots affected by the water connection moratorium of 1975-78.	Project consistent. The project site has retained entitlement to an existing water allocation and implementation of the proposed project would have less water demand than the allocation. See Section 4.14 Utilities.
3.2.3.3 (LUP)	The County should require new development in the Cal-Am service area to employ water conservation techniques to the greatest possible extent. This would include, among other things, use of water-saving fixtures, retention of native vegetation, and use of drought-tolerant landscaping.	Project consistent. Water conservation measures, such as use of drought-resistant landscaping, have been included in the design of the proposed project.

4.10 NOISE

Introduction

This section evaluates potential noise impacts on nearby sensitive receptors from both short-term sources, such as construction, and long-term sources, such as project operations. Discussions also include determinations of significance and corresponding mitigation. Several reports were completed for the project, including the following:

- Brown & Buntin Associates, Inc (September 16, 2007), Revised Acoustical Analysis Villas de Carmelo, Monterey County, California. (The report is included in **Appendix J** of this document.)
- Illingworth & Rodkin, Inc (January 29, 2009), Villas de Carmelo, Monterey County, CA, Environmental Noise Assessment. (The report is included in **Appendix J** of this document.)

Per Monterey County Planning Department request, the Acoustical Analysis prepared by Brown & Buntin Associates, Inc. and submitted as part of the project application materials was peer reviewed by Illingworth & Rodkin, consulting acoustical engineers for the EIR. Brown & Buntin Associates, Inc. revised the Acoustical Analysis to include suggestions from the peer review. The revised report was incorporated into the Environmental Noise Assessment completed for the EIR by Illingworth & Rodkin, Inc. As such, the following discussion and analysis incorporates information from the revised Acoustical Analysis (Brown & Buntin) and the Environmental Noise Assessment (Illingworth & Rodkin). These two reports can be found in **Appendix J** of this document. The complete set of documents and their respective peer reviews are available for review at the Monterey County Planning Department.

Setting

Noise is commonly defined as unwanted or objectionable sound. Excessive noise may cause adverse impacts, such as physical and/or psychological damage. Auditory effects include interference with communication and possible hearing loss. Non-auditory effects include physiological reactions, such as a change in blood pressure or breathing rate, sleep interference, adverse affects on human performance, and annoyance. The degree of impacts due to noise relies primarily on the amount and nature of the noise and the amount of ambient noise present before the impacts. As such, State and local regulations limit objectionable noise levels and describe land use compatibility standards. The following analysis describes the characteristics of sound, scales of measurement, the location of sensitive noise receptors, and the existing/future noise environment.

Three variables comprise sound measurements: the magnitude, frequency, duration. Different variations of magnitude, frequency, and duration can influence how noise will affect a population. The magnitude of sound is loudness. Variations in loudness are measured on the "decibel" (dB) scale. On this scale, noise at zero decibels is barely audible, while noise at 120-140 decibels is painful and may cause hearing damage. These extremes, however, are not encountered in commonplace environments.

Frequency is the number of times per second an object producing the sound vibrates. The human ear responds to sounds whose frequencies are in the range from 20 hertz (HZ) to 20,000 HZ. Within the audible range, subjective response to noise varies. People generally find higher pitched sound to be more annoying than lower pitched sounds. Noise is typically characterized using the A-weighted sound level or dBA. This scale gives greater weight to the frequencies that the human ear is most sensitive. **Table 4.10-1** demonstrates the correlation between the human response and the dBA sound levels.

Duration is how long a steady noise occurs. Annoyance due to noise is often associated with how long noise persists. To describe a noise environment adequately, it is necessary to quantify the variation in noise levels over time. Acoustical engineers often use a statistical approach that specifies observed noise levels that are exceeded over a given percentage of time. Engineers must also take into consideration that noise levels will decrease as distances from a noise source increases. Further, sensitive noise receptors, such as residences, schools, hospitals, transient lodging, nursing homes, churches, meeting halls, office buildings, and mortuaries, are more sensitive to noise levels and should be taken into consideration.

Table 4.10-1 Typical Noise Levels in the Environment		
Common Outdoor Noise Source	Noise Level (dBA)	Common Indoor Noise Source
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
Pile driver at 20 meters	100 dBA	
	90 dBA	Night club with live music
Large truck pass by at 15 meters	80 dBA	Noisy restaurant
Gas lawn mower at 30 meters	70 dBA	Garbage disposal at 1 meter
Commercial/Urban area daytime		Vacuum cleaner at 3 meters
Suburban expressway at 90 meters	60 dBA	Normal speech at 1 meter
Suburban daytime	50 dBA	Active office environment
Urban area nighttime	40 dBA	Quiet office environment
Suburban nighttime		
Quiet rural areas	30 dBA	Library
Wilderness area	20 dBA	Quiet bedroom at night
Most quiet remote areas	10 dBA	
Threshold of human hearing	0 dBA	Threshold of human hearing
* Typical A-weighted sound levels. The A-weighted decibel scale approximates the frequency response of the human ear. Source: Illingworth & Rodkin, Inc., Villas de Carmelos Project Environmental Noise Assessment, October 2008.		

The State of California has two acceptable measurement scales for evaluating the average sound level (L_{eq}) over a 24-hour period to determine the noise levels over extended periods of time: the "Day-Night Noise Level" scale (L_{dn}) and the "Community Noise Equivalent Level" (CNEL). Both scales weigh

evening and nighttime noise levels heavier to take into consideration increased human sensitivity to noise during those periods. The DNL (L_{dn}) divides a 24-hour period into daytime (7:00 AM to 10:00 PM) and nighttime (10:00PM to 7:00AM). Nighttime is weighed 10 dB higher than the daytime noise levels. The Community Noise Equivalent Level, CNEL, is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nighttime (10:00 pm - 7:00 am) noise levels. Both scales measure at approximately the same dBA level.

Acoustical Analysis

The Acoustical Analysis, prepared by Brown-Buntin Associates, Inc., was performed for the site in order to determine traffic noise exposure that the implemented project may be affected by and to determine any mitigation necessary to satisfy applicable noise standards. The report estimated traffic noise levels from Highway 1 using currently posted speed limits for both existing and future noise conditions by using the Federal Highway Administration's (FHWA) Traffic Noise Model (TNM). The FHWA Model is the most advanced required noise prediction method used to estimate potential noise impacts for roadway improvement projects with state or federal funding; this method is accepted by public agencies.

The proposed project's Acoustical Analysis included noise level measurements at seven locations on the project site on September 10-11, 2008, which acted as an indicator of modeling accuracy. One 24-hour measurement was taken as well to determine the CNEL for existing traffic conditions. The modeling results from the TNM evaluation were deemed within +/- 0.6 dB of the actual noise level measurements. As the modeling was used for impact and mitigation determination, the resulting evaluation was deemed an accurate depiction of existing and future traffic noise conditions.

Traffic information provided by Higgins Associates dated September 4, 2008, was used to calculate the annual average daily traffic using a 45 miles per hour (mph) speed limit, which is higher than the 40 mph posted speed limit. The analysis determined that the annual average traffic noise exposure at the proposed residential building locations ranged from less than 60 dB CNEL to 73.3 dB CNEL. The range in noise levels was attributed to existing buildings and current terrain that provided noise shielding for portions of the project site. As these levels meet and exceed Monterey County standards of 60 dB CNEL maximum exterior noise standards, and thus interior noise levels, mitigation was deemed necessary to reduce impacts to future occupants of the site. Impact discussion and mitigation requirements are incorporated in the discussion below on each respective topic.

Environmental Noise Assessment

The Environmental Noise Assessment, prepared by Illingworth & Rodkin, included noise measurements and analysis, a discussion of noise fundamentals, a series of noise monitoring surveys conducted at the site, discussion of applicable regulatory policies, an assessment of project-related impacts, and recommended mitigation measures for the proposed project. The evaluation discusses the noise and land use compatibility of the project and the project-generated noise levels, including temporary, periodic, and permanent impacts. Data and information from the Environmental Noise Assessment have been incorporated into this section and are discussed below.

Existing Noise Environment

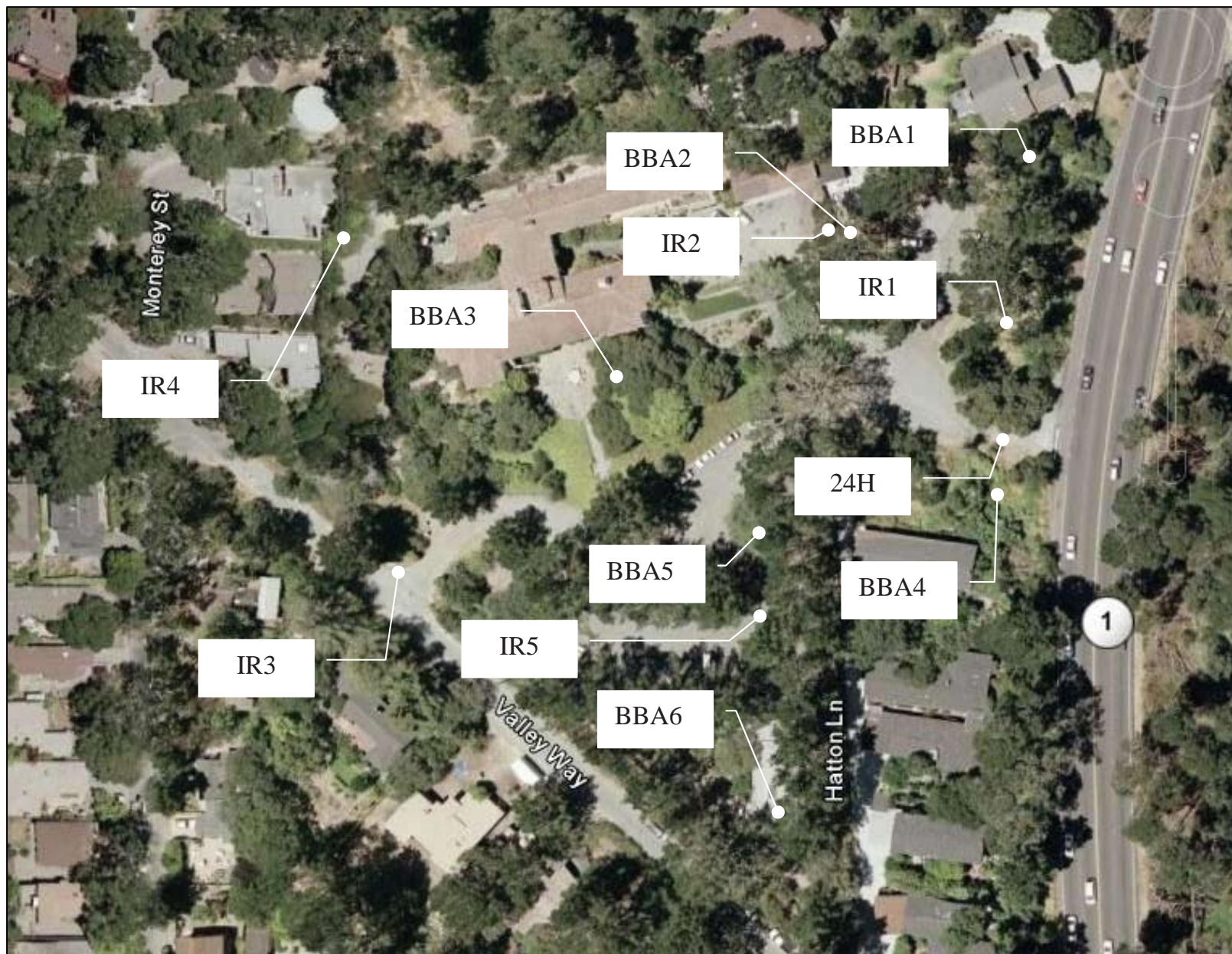
The Environmental Noise Assessment contained analysis of noise surveys conducted at and around the project site by both Illingworth and Rodkin, Inc. (July 2008) and Brown-Buntin Associates, Inc. (September 2008) to determine the existing noise environment in greater depth than what was provided in the Acoustical Analysis. As the majority of environmental noise incorporates a conglomeration of noise from distant sources to make a relatively steady ambient noise level, the statistical noise descriptors L_{01} ,

L_{10} , L_{50} , and L_{90} were used to characterize the time-varying character of environmental noise. The descriptors are the A-weighted noise levels met or exceeded during 1%, 10%, 50%, and 90% of a stated time period. The average of these descriptors is the L_{eq} , or the average A-weighted noise level during a stated period of time.

Illingworth & Rodkin conducted a site visit and recorded noise measurements at five locations on July 28, 2008, to assess ambient worst-hour traffic noise levels on-site and typical daytime ambient noise levels at nearby sensitive residential land uses. Brown-Buntin Associates, Inc. (BBA) conducted noise measurements at seven on-site locations on September 10-11, 2008. One location (Site 24H) was monitored continuously for a 24-hour period to determine CNEL for existing traffic conditions. The measurements locations are shown on **Figure 4.10-1**.

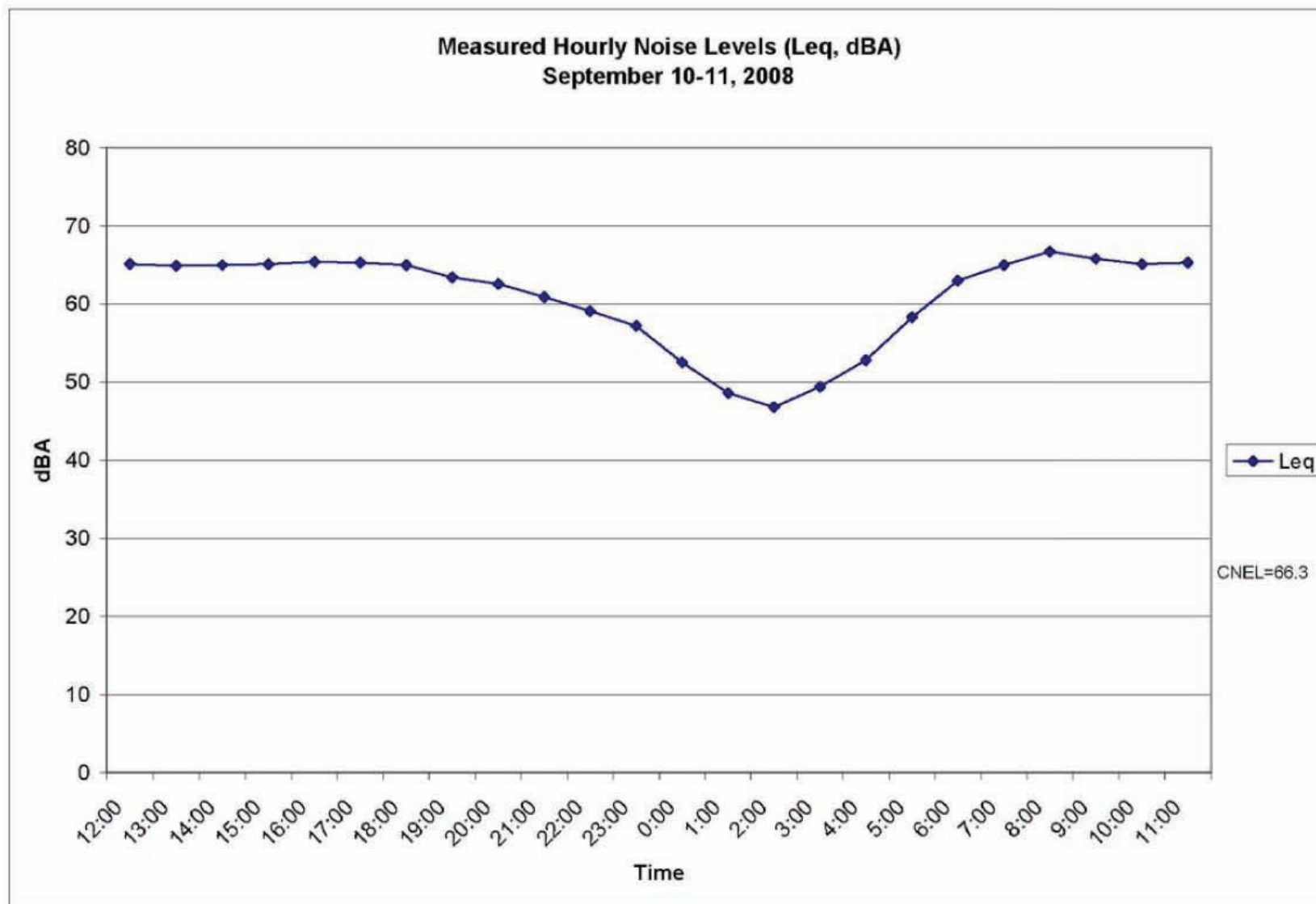
The noise measurements determined that the primary noise source for the property is the vehicular traffic along Highway 1. Several other noise sources include vehicular traffic along Valley Way and neighboring residential yard maintenance and construction. Noise measurements made by both Illingworth & Rodkin and Brown-Buntin at these locations are shown in **Table 4.10-2** and range from 70 dBA L_{eq} nearest Highway 1 to 45 dBA L_{eq} at the site's western most property line. The measurement at site 24H recorded hourly traffic noise levels that ranged from 47 dBA L_{eq} to 67 dBA L_{eq} ; the average CNEL for this location is 66 dBA. The data for site 24H is summarized in **Figure 4.10-2**.

Table 4.10-2 Summary of Short-Term Noise Measurement Data							
Noise Measurement Location(Date/Time)	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}	CNEL
IR 1A: ~100 feet from the centerline of SR 1. (7/28/2008, 7:50-8:00)	80	77	73	70	64	70	70-71
IR 1B: ~100 feet from the centerline of SR 1. (7/28/2008, 8:00-8:10)	77	75	72	69	62	69	
IR 2A: ~220 feet from the centerline of SR 1. (7/28/2008, 8:20-8:30)	72	70	66	63	55	63	63
IR 2B: ~220 feet from the centerline of SR 1. (7/28/2008, 8:20-8:30)	69	68	66	63	57	63	
IR 3A: ~30 feet from the centerline of Valley Way. (7/28/2008, 8:50-9:00)	69	63	51	48	43	50	50
IR 3B: ~30 feet from the centerline of Valley Way. (7/28/2008, 9:00-9:10)	66	62	50	47	44	50	
IR 4: Westernmost property line of project site adjacent to existing residential land uses. (7/28/2008, 9:30-9:40)	54	51	47	44	41	45	46
IR 5: Southeast portion of project site adjacent to existing residential land uses. (7/28/2008, 9:50-10:00)	65	62	59	56	51	57	58
BBA 1: Unit 1 (9/10/2008-9/11/08, 11:35)	--	--	--	--	--	66	67
BBA 2: Unit 46 (9/10/2008-9/11/08, 12:45)	--	--	--	--	--	63	64
BBA 3: Common area near underground parking. (9/10/2008-9/11/08, 10:30)	--	--	--	--	--	56	57
BBA 4: Unit 7 (9/10/2008-9/11/08, 17:00)	--	--	--	--	--	72	73
BBA 5: Unit 10 (9/10/2008-9/11/08, 10:30)	--	--	--	--	--	55	56
BBA 6: Unit 23 (9/10/2008-9/11/08, 11:35)	--	--	--	--	--	55	56
Note: CNEL approximated by correlating to corresponding period at long-term site. "IR" refers to a measurement recorded by Illingworth & Rodkin, and "BBA" refers to a measurement recorded by Brown-Buntin Associates. Source: <i>Environmental Noise Assessment, Illingworth & Rodkin, Inc., 2008</i>							



Noise Measurement Locations

Figure
4.10-1



Daily Trend in Noise Levels at Site 24H

Figure
4.10-2

Regulatory Environment

The State of California and Monterey County have regulations, plans, and policies to limit noise exposure at existing and proposed noise sensitive uses. These regulations are established in the following applicable documents: (1) the 2007 California Building Code, (2) the Monterey County General Plan, and (3) the Monterey County Code (Chapter 10.60).

California Building Code. The 2007 California Building Code specifies certain policies and regulations required by the state government. Chapter 12, Appendix Section 1207.11.2 includes requirements for multi-family housing and set environmental noise limits. The maximum interior noise level of these structures is set at a level of 45 dBA CNEL. Residential structures proposed where exterior noise levels exceed 60 dBA CNEL are required to complete a report for submission with building plans detailing specific the noise control measures that have been incorporated into the design of the project to meet the required noise standards.

Monterey County General Plan. The Noise Element of the General Plan provides policies from excessive noise levels and noise-related impacts. The goal of the noise section is to: "...maintain an overall healthy and quiet environment by trying to achieve living and working conditions free from annoying and harmful sounds." Residential land uses are considered "normally acceptable" in noise environments up to 60 dBA CNEL, and interior noise levels shall be maintained at or below 45 dBA CNEL. The "conditionally acceptable" noise range for residential areas is up to 70 dBA. Development in areas where noise levels are considered "conditionally acceptable" may be undertaken only after additional noise analysis is provided and necessary mitigations are included in the project design. Refer to the Land Use Compatibility for Exterior Community Noise Environments, **Table 4.10-3**, below. The following policies are applicable to the project site:

Policy 22.2.1 The County shall require new development to conform to the noise parameters established by Table 6 [**Table 4.10-3** below], Land Use Compatibility for Exterior Community Noise Environments.

Policy 22.2.2 The County shall require the appropriate standards of soundproofing construction in all multiple-residential structures as specified in the Building Code.

Policy 22.2.3 The County shall require environmental review of all proposed new development, expansion of industrial facilities, and quarry excavation and processing activities which may increase the noise level in surrounding areas or generate noise levels greater than those specified in Table 6 [**Table 4.10-3** below].

Policy 22.2.5 The County, in accordance with Table 6, should require ambient sound levels to be less at night (10 p.m. to 7 a.m.) than during the day.

Monterey County Code. The Monterey County Code Chapter 10.60 of the Health & Safety Title details noise controls set by the County. The applicable policies are as follows:

No person shall, within the unincorporated limits of the County of Monterey, operate any machine, mechanism, device, or contrivance which produces a noise level exceeding 85 dBA measured fifty feet therefrom. The prohibition in this section shall not apply to aircraft nor to any such machine, mechanism, device or contrivance which is operated in excess of two thousand five hundred feet from any occupied dwelling unit. (Ord. 2450 Section 3, 1978.)

Table 4.10-3 Land Use Compatibility Criteria for External Community Noise				
	Noise Ranges (L_{dn} and CNEL) dB			
Land Use Category	I	II	III	VI
Passively used open space	50	50-55	55-70	70+
Auditoriums, concert halls, amphitheaters	45-50	50-65	65-70	70+
Residential – Low density single family, duplex, mobile homes	50-55	55-70	70-75	75+
Residential – multi-family	50-60	60-70	70-75	75+
Transient lodging – motels, hotels	50-60	60-70	70-80	80+
Schools, libraries, churches, hospitals, nursing homes	50-60	60-70	70-80	80+
Actively used open spaces—playgrounds, neighborhood parks	50-67	---	67-73	73+
Golf courses, riding stables, water recreation, cemeteries	50-70	---	70-80	80+
Office buildings, business, commercial and professional	50-67	67-75	75+	---
Industrial, manufacturing, utilities, agriculture	50-70	70-75	75+	---
<p>Noise Range I – Normally acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p>Noise Range II – Conditionally acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</p> <p>Noise Range III – Normally unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p> <p>Noise Range IV – Clearly unacceptable: New construction or development should generally not be undertaken.</p> <p><i>Source: Monterey County General Plan, 1982.</i></p>				

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- expose persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- have substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- have a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;

- expose people residing or working in the project area to excessive noise levels for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; or
- expose people residing or working in the project area to excessive noise levels for a project within the vicinity of a private airstrip.

In addition, the Environmental Noise Assessment included several other criteria to consider for noise assessments based on the regulatory policies mentioned above for the following categories:

Noise and Land Use Compatibility. A significant noise impact would occur where noise-sensitive land uses are proposed in exterior noise environments exceeding 60 dBA CNEL. Interior noise levels within residential land uses in excess of 45 dBA CNEL would also result in a significant noise impact.

Vibration Compatibility. A significant impact would occur where adjacent sensitive receivers would be exposed to excessive, prolonged vibration or vibration that would cause cosmetic or structural damage.

Substantial Permanent Increase to Noise Levels. A significant noise impact would occur where project-generated traffic would increase traffic noise levels at existing noise-sensitive land uses by 3 dBA CNEL or more and noise levels would equal or exceed 60 dBA CNEL. Where noise levels would remain below 60 dBA CNEL, a 5 dBA CNEL noise level increase would be considered substantial.

Substantial Temporary Noise from Project Construction. Construction activities generate temporary noise level increases in the vicinity of project sites. Since noise generated by construction would be short-term/temporary and vary considerably day-to-day, construction noise is evaluated somewhat differently than operational noise. Several criteria are evaluated for the individual characteristics of the proposed project's construction plan when determining levels of significance. For the purposes of this analysis, these criteria include the type of land uses in the vicinity of the project, the distance from construction activities to sensitive receptors, increases in noise levels from existing conditions, projected noise generation from construction activities, proposed unique construction practices (e.g., pile driving), and the duration of noise exposure due to construction activities. When noise-generating construction activities are predicted to cause prolonged interference with normal activities at noise-sensitive receiver locations, generate noise levels in excess of 60 dBA L_{eq} , and exceed ambient noise levels by 5 dBA L_{eq} or more, the impact would be considered significant. For the purposes of this analysis, prolonged interference for the noise-generating construction phase is defined as a substantial noise level increase that occurs for one year or more.

Impacts and Mitigation

Noise and Land Use Compatibility

The proposed project was evaluated for impacts relating to noise and land use compatibility. Exterior noise exposure and interior noise exposure are two components that the technical reports analyzed for potential impacts.

Exterior Noise Exposure

The Monterey County 60 dB CNEL exterior noise level standard pertains to noise exposure within outdoor activity areas, such as individual patios or decks of the proposed project. The technical reports prepared for the project site determined that future traffic noise exposure at the proposed residential buildings would range from less than 60 dB CNEL to 73.3 dB CNEL. Variations in future noise exposure

were attributed to building locations, acoustic shielding by existing buildings, terrain, and vegetation. As such, the future noise exposure is expected to exceed Monterey County standards.

Building layouts for the proposed residential units strategically positioned outdoor activity areas to minimize direct exposure to traffic noise. For example, patios for Units 1-8 are located on the opposite side of the buildings from Highway 1. Further, the buildings containing Units 1-8 form a sound barrier for other buildings on the project site. Given this layout, the greatest noise exposure would be to the east side of proposed Units 1-8. Future noise exposure projections with the implementation of the project would range from 70 dB at Unit 1 to 73.3 dB at Unit 8.

Outdoor activity areas would be located on the side of the building furthest from Highway 1 noise traffic and noise exposure would be reduced by a minimum of 15 dB at these locations. A sound barrier in the gap between Units 4 and 5 would achieve the same level of noise abatement as provided by a sound wall if specifications from the assessment were followed, given the proposed location of outdoor activity areas. Units 1-8 would therefore be in compliance with Monterey County standards of 60 dB exterior noise levels.

The Environmental Noise Assessment determined that future traffic noise exposure to Units 9-11, 12-13, and 43-46 would range between approximately 65 to 67 dB CNEL without intervening buildings. With Units 1-8 acting as an acoustical shield for the rest of the units on the property, noise exposure at these locations would be reduced by a minimum of 10 dB. Units 14-23 proposed for the southeastern portion of the property site would be acoustically shielded by existing structures, specifically by the 14-unit apartment complex located adjacent to the project site, and existing vegetation to a level below the 60 dB CNEL threshold. The remainder of units to the west of the property would meet County standards without mitigation requirements. This would meet County standards of a maximum 60 dB CNEL exterior noise level for residential structures. *This represents an impact that would be reduced to a less-than-significant level with mitigation incorporated.*

Interior Noise Exposure:

Monterey County has a set standard of 45 dB CNEL for interior noise exposure in residential structures. A outdoor-to-indoor noise level reduction of 28.3 dB would be required for Units 1-8 to meet County standards for interior noise exposure. The remainder of the proposed units would require reductions as well; however, the reductions required would be lower as the buildings would be located further from Highway 1 and acoustically shielded by existing and proposed structures and vegetation on and around the project site.

A specific analysis of interior noise levels was not performed. The Environmental Noise Assessment assumed that Monterey County building codes and typical residential construction methods would reduce exterior noise levels by a minimum of 25 dB if windows and doors are closed, thus proposed units excluding Units 1-8 would meet Monterey County standards. Should windows and doors need to remain closed to meet standards, County standards would also require air conditioning or mechanical ventilation.

The interior noise levels for habitable rooms within Units 1-8 could be improved by installing sound-rated windows and utilizing a stucco exterior wall finish. The Environmental Noise Assessment recommended a minimum laboratory-tested Sound Transmission Class (STC) rating of 35 for windows facing or perpendicular to Highway 1. Other exterior wall materials could be used if approved by a qualified acoustical consultant. *This would be an impact that would be reduced to a less-than-significant level with mitigation incorporated.*

Mitigation requiring a sound barrier in the gap between Unit 4 and Unit 5, specific building materials, project-specific acoustical analysis, forced ventilation requirements, and noise reduction through use of special building techniques would reduce noise levels to within the standards set by Monterey County. Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **Residential uses developed at portions of the project site would be exposed to exterior noise levels exceeding the “normally acceptable” noise and land use compatibility standards presented in the County’s General Plan for multiple-family residential land uses. Interior noise levels would exceed acceptable levels at portions of the project site without the incorporation of noise insulation features into the project’s design. *This represents a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation Measures:

- 4-10.1 In order to reduce exterior noise levels to the applicable standards set forth by Monterey County, the project applicant/developer shall construct a minimum 10-foot noise barrier (relative to the finished floor elevations of Units 4 and 5) between Units 4 and 5 to maintain noise levels at private and common outdoor use areas to 60 dBA CNEL or less. The noise barrier shall be airtight over the surface and at the base. The minimum surface weight of the proposed noise barrier materials shall be 3 lbs/ft². Suitable construction materials include masonry block, concrete, and minimum one-inch thick wood boards. Evidence to demonstrate provisions for this measure shall be submitted by the project applicant/developer to the Monterey County Planning Department prior to building permit issuance.
- 4-10.2 In order to reduce interior noise levels to applicable standards set forth by Monterey County of 45 dBA CNEL or lower within each unit on the project site, the project applicant/developer shall submit evidence to demonstrate provisions for following measures prior to building permit issuance from the Monterey County Planning Department:
- a. Installation of forced-air mechanical ventilation in each unit;
 - b. Exterior wall finish of stucco or an approved acoustical equivalent ;
 - c. Exterior doors, excluding glass doors, shall be solid-core wood or insulated steel with perimeter weather-stripping and threshold seals;
 - d. Acoustic baffles shall be installed on the interior side of roof vents that face (or partially face) Highway 1 in the first row of buildings along the roadway; and
 - e. Project-specific acoustical analyses, as required by Chapter 12, Appendix Section 1207.11.2 of the California Building Code to determine each unit will meet interior noise levels as set forth by Monterey County. Further treatments may be needed to meet acceptable noise levels, treatments could include sound rated windows and doors, sound rated wall constructions, acoustical caulking, protected ventilation openings, etc.

Construction Noise

The intensity of construction-related noise impacts depends on the various construction equipment used, timing and duration of noise generating activities, and the distance between noise sources and sensitive receptors, such as residences. As individuals are more susceptible to noise during portions of the day, such as early morning, evening, and nighttime hours. Impacts increase when noise source activities last over an extended period of time.

CEQA guidelines do not specifically define "prolonged interference" in the threshold of significance for temporary construction noise impacts. Illingworth & Rodkin, therefore, relied upon industry standards and expert opinion in order to define a relevant threshold of significance for the proposed project, as mentioned above. No unique construction practices, such as pile driving, are proposed for the project; however, several other criteria indicate the potential for significant impacts.

Construction of the proposed project is anticipated to occur over a duration of seventeen months with the highest noise generating activities within the construction period of approximately 11-months. Types of construction activities that would result in major sources of noise include site preparation activities, structure demolition, parking garage excavation and construction, earthwork, grading, utilities and infrastructure installation, off-site road improvements, building foundation construction, and building shell construction. Demolition phases, site preparation, grading, excavation, infrastructure construction, and foundation construction are expected to yield the greatest noise generation during construction of the proposed project, as larger equipment is used during these construction activities. **Table 4.10-4** depicts the typical range of hourly average noise levels generated by different phases of construction. Noise levels generated from demolition activities and construction average 81 dBA to 88 dBA L_{eq} 50 feet from the center of a busy construction site, and maximum noise generation would range from 85 to 90 dBA L_{max} . Construction generated noise levels reduces at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding provided by barriers or structures can provide an additional 5 to 10 dBA noise reduction at distant receivers.

Table 4.10-4								
Typical Noise Level Range at 50 Feet from Construction Sites (dBA, L _{eq})								
	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84
I - All pertinent equipment present at site.								
II - Minimum required equipment present at site.								
Source: U.S. E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.								

The proposed project is bordered on three sides by residential uses, most of which are low-density. Potentially affected sensitive receptors, such as residences located adjacent to the project site, are as close as 10 feet from construction areas where considerable earthwork would be required and where new residential units would be built. The majority of neighboring residential uses and sensitive receptors would be located 100 to 200 feet from the main hospital building and underground parking area. Assuming direct line of sight to construction activities, the Environmental Noise Assessment calculated that construction noise levels would exceed 60 dBA L_{eq} and the ambient noise level by 5 dBA L_{eq} or more when construction activities occur within about 600 to 1,300 feet of residences. Construction activities

occurring immediately adjacent to residential receivers would result in hourly average noise levels that are 40 to 50 dBA L_{eq} above ambient daytime noise levels. As such, noise levels resulting from construction activities would impact neighboring sensitive land uses throughout the duration of construction activities occurring on site, and ambient noise levels would be substantially raised on a temporary basis.

The highest noise generating activities within the construction period will be the approximately 11-month period during which the greatest noise generating activities would occur over the estimated seventeen month construction schedule, thus exposing sensitive receptors to a temporary period of increased noise levels. Given the close distance to nearby sensitive receptors, and the increase in ambient noise levels, the project would result in potentially significant construction-related impacts. However, the implementation of standard construction noise control measures, including construction of noise barriers and limiting hours of construction and considering the temporary nature of the impact in conjunction with mitigation measures, impacts would be reduced to a less-than-significant level. Mitigation would include the completion and implementation of a construction noise reduction plan that would include requirements for construction hour restrictions, equipment, staging area, noise barriers, and disturbance coordinator duties. Implementation of these mitigation measures would not result in any new significant impact beyond those previously identified in this Draft EIR.

Impact **Noise generated by construction activities would temporarily increase noise levels at adjacent residential land uses. *This represents a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measures.***

Mitigation Measures

4-10.3 The project applicant/developer shall develop a construction noise reduction plan with the following listed plan controls, standards and actions. The Plan shall be developed in close coordination with adjacent noise-sensitive land uses so that construction activities can be scheduled to minimize noise disturbance. The plan shall be submitted to the Monterey County Planning Department for review and approval prior to the initiation of construction activities. The construction noise reduction plan shall incorporate the following controls with the goal of reducing construction noise levels to less-than-significant.

- Noise-generating activities at the construction site or in areas adjacent to the construction site shall be restricted to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. Construction shall be prohibited on weekends and holidays. Additionally, noise-generating activities in the demolition and grading phase of the construction schedule and directly adjacent to existing residences on the northwest and southeastern portions of the project site shall be further restricted to the hours of 9:00 a.m. to 4:00 p.m.
- No individual device shall produce a noise level more than 85 dBA at a distance of 50 feet.
- Solid plywood fences (minimum 8 feet in height) shall be constructed around the construction site to shield adjacent residences or other noise-sensitive land uses.
- ‘Quiet’ models of air compressors and other stationary noise sources where technology exists shall be utilized.

- All internal combustion engine-driven equipment shall be equipped with mufflers that are in good condition and appropriate for the equipment.
- All stationary noise-generating equipment, such as air compressors and portable power generators, shall be located to maximize distances to residences/noise sensitive uses.
- Staging areas and construction material shall be located to maximize distances to residences or noise-sensitive land uses.
- All construction traffic shall be routed to and from the project site via designated truck routes where possible and prohibit construction related heavy truck traffic in residential areas where feasible.
- Noise from construction workers' radios shall be controlled to a point that they are not audible at existing residences bordering the project site.
- All unnecessary idling of internal combustion engines shall be prohibited.
- All adjacent noise-sensitive receptors shall be notified of the construction schedule in writing prior to the initiation of construction activities;
- The project contractor shall designate a "disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The disturbance coordinator shall conspicuously post a sign that is publicly visible that specifies the project construction noise mitigation measures, the telephone number of the onsite contractor, and the telephone number of the person to contact (the disturbance coordinator) regarding noise complaints. The disturbance coordinator shall respond to complaints and take corrective action within 24 hours.
- The plan shall be implemented by all relevant contractors at the site and shall be monitored by the Monterey County Planning and Building Inspection Department during demolition and grading activities at the site.

Project-Generated Traffic Noise

Traffic data from the traffic report was utilized in order to calculate potential noise impacts in the vicinity from an increase in traffic as a result of project implementation. Anticipated noise level increases resulting from project implementation would occur mainly during AM peak hour traffic volumes on Valley Way and between Lobos Street and the project site, as 15 additional trips are estimated during the AM peak hour as a result of the project, causing an increase in noise levels by about 2 dBA L_{eq} . Traffic noise increases due to project implementation during off-peak hours would increase by less than 2 dB CNEL. Under the criteria of significance, this would be considered a less-than-significant impact as the project would not noticeably increase hourly average or daily average noise levels along roadways serving the site. ***Therefore, the project would have less-than-significant impacts from project-generated traffic noise.***

Groundborne Vibration

Project implementation has the potential to impact nearby sensitive noise receptors due to the use of heavy equipment or impact tools during construction activities. Heavy-tracked vehicles (e.g., bulldozers or excavators) may produce perceptible groundborne vibration when operating within approximately 25 feet of sensitive land uses. As some of the residential land uses bordering the site are within 25 feet of construction areas, there is potential for groundborne vibration impacts; however, these uses would not be subject to vibration levels over extended periods of time given the limited work at the periphery of the project site. Groundborne vibration generated by construction activities would not be expected to result in cosmetic or structural damage. *Therefore, the project would have less-than-significant impacts related to groundborne vibration.*

Aircraft Noise

The project site is not located within two miles of an airport, within an airport land use plan area, nor would the project site be exposed to excessive noise from aircraft. The exterior noise environment at the project site resulting from intermittent aircraft noise would be considered compatible with proposed sensitive uses. *Therefore, the project would have less-than-significant aircraft noise impacts.*

Cumulative Noise Impacts

The geographic scope for this analysis is the local vicinity of the project site.

Cumulative Construction Noise Impacts

Implementation of the proposed project and other past, present, and potential future projects would require use of construction vehicles and equipment operation that could temporarily increase the noise levels in the project vicinity, including noise levels to nearby sensitive receptors and residences. Based on known development projects to occur in the area (see cumulative vicinity projects listed in the **Section 5.2, Cumulative Impacts**), the project has the potential to add to the cumulative temporary increases in noise levels of the site if other development projects in the vicinity occur within the same construction time period.

In regards to the first thresholds of significance for construction impacts (above under “Construction Impacts”), cumulative projects would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Specifically, construction activities of this proposed project and other cumulative projects within ¼ mile of this project would temporarily include the use of heavy-duty, off-road equipment and trucks that would generate noise levels above 60 dBA and more than 5 dBA of above ambient noise levels. Implementation of standard construction noise control measures and reasonable hours of construction would reduce this impact to a less-than-significant level.

In regards to the second thresholds of significance for construction impacts (above under “Construction Impacts”), cumulative projects would not be expected expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (see specifics above under “Regulatory Environment”). Specifically, construction activities of other cumulative projects within ¼ mile of this project would include the use of heavy-duty, off-road equipment and trucks that would generate temporary construction-related noise that may violate noise reduction policies. However, these violations/conflicts would not be additive of any potential violations of the proposed project since the language addresses only individual projects, noise sources, or events. Therefore, this issue would not be considered a significant cumulative noise impact adversely impacting

sensitive receptors in the vicinity of the proposed project site. ***Therefore, the proposed project would not make a considerable contribution to a cumulative noise impact.***

Based on the above project-level discussion, the proposed project would not have significant noise impacts after construction with applied mitigation as discussed in this section. Several other projects in the immediate vicinity of the project site may be considered to result in the increase of noise levels during their construction; however, none of those past, present or probable future constructed projects listed in **Section 5.0 CEQA Considerations** would be expected to substantially change the existing noise levels in the project vicinity. Further, standard conditions and requirements to maintain adequate noise levels are applicable to this project and other projects potentially occurring within the project vicinity by the County of Monterey.

Regulations governing noise levels during construction and operation, construction hours and adequate levels of noise are the responsibility of each jurisdiction. There is no area of high development potential in the vicinity of the project site. The planning for this area and local jurisdictions include noise standards and requirements that reduce the noise impacts of construction and operation of development to a less-than-significant level. Based on the above analysis, lack of substantial new development proposed in the project area and the mitigating effects of the planning documents applicable to the geographic area, there would not be a significant cumulative noise impact. ***Therefore, the proposed project would not result in a considerable contribution to a cumulative noise impact.***

Cumulative Traffic Noise Increase

The proposed project has the potential to result in cumulative traffic noise increases. Two impacts would constitute a significant impact for cumulative traffic noise: Exposure of existing sensitive receptors to cumulative traffic noise level increases greater than 3 dBA CNEL above ambient levels or a “cumulatively considerable” contribution to the overall traffic noise level due to project implementation. A “cumulatively considerable” contribution would be defined as an increase of 1 dBA CNEL or more attributable solely to the proposed project. The Environmental Noise Assessment determined that cumulative traffic noise levels would not increase substantially along roadways serving the site. As such, the project’s contribution to cumulative traffic noise increases would be less-than-significant. Traffic volumes along roadways serving the project site would increase as a result of cumulative growth forecast in local General Plans; however, the project would not make a “cumulatively considerable” contribution to cumulative traffic noise increases at nearby noise sensitive receptors. ***Therefore, the project would have less-than-significant impacts due to cumulative traffic noise increases.***

4.11 POPULATION AND HOUSING

Introduction

This section describes the population and housing issues related to the proposed project, including background and documentation to support the growth inducement analysis contained within **Section 5 CEQA Considerations** of this Draft EIR. The key sources of information for this analysis include the 2000 Census, the 2008 Association of Monterey Bay Area Governments (AMBAG) Projections, the California Department of Finance (DOF), and the County of Monterey.

Setting

Based on 2007 data from DOF, Monterey County had a population of approximately 425,960 people. The County's population has grown at an overall rate of 1.1 percent annually since 2000. However, the majority of Monterey Peninsula communities have seen decreased population levels during the same time period, largely as a result of the closure of the Fort Ord military base. Approximately 25% of the county's population lives in unincorporated areas with the remaining 75% residing in the county's 12 cities. Salinas is the largest city, followed by Seaside, Monterey, and Marina.

Table 4.11-1 presents projected population growth in the Monterey Peninsula through 2020, based on the current population and historic trends. These projections suggest that all of the cities except Carmel will experience growth between 2000-2020. The population of Carmel is projected to decrease by 5% during this time period. The AMBAG Draft Regional Forecast 2008 projects population and employment for cities within Monterey, San Benito, and Santa Cruz counties.

Table 4.11-1			
Current and Projected Population Summary By Jurisdiction			
Place of Residence	2000 Census Population	2015 Projected Population	2020 Projected Population
City of Del Rey Oaks	1,650	1,745	2,237
City of Marina	25,101	26,658	29,274
City of Monterey	29,674	30,092	30,278
City of Sand City	243	1,498	1,498
City of Seaside	31,786	35,165	35,158
City of Carmel	4,081	3,848	3,873
City of Pacific Grove	15,522	15,528	15,550
Unincorporated Monterey County	100,252	111,105	113,778
Monterey County Total	401,762	466,606	483,733
<i>Sources: 2000 Population and Household data from the U.S. Census Bureau. "DP-1. Profile of General Demographic Characteristics: 2000." Summary File 1; and population projections from AMBAG, "Draft Regional Forecast 2008."</i>			

Monterey County's total population resides in approximately 140,296 households (DOF 2008). The average number of persons per household is 3.15, although this is far from uniform throughout the County. Most of the County's housing stock (occupied or unoccupied dwelling units) is in the northern

portion of the County. **Table 4.11-2** shows the distribution of housing stock among the cities and the unincorporated parts of the County.

Table 4.11-2	
Housing Stock In Monterey County (Dwelling Units)	
Jurisdiction	Total Housing Units
Carmel	3,331
Del Rey Oaks	727
Gonzales	1,738
Greenfield	2,727
King City	2,855
Marina	8,543
Monterey	13,420
Pacific Grove	7,998
Salinas	39,612
Sand City	92
Seaside	11,005
Soledad	2,543
Unincorporated	37,579
Total	132,170
<i>Source: U.S. Census, 2000.</i>	

Based on current conditions and trends, growth is projected throughout the County, with no major changes in the geographic distribution of population. The redevelopment of the former Fort Ord is expected to restore population levels within the area to those prior to base closure, with Seaside, Marina, and Del Rey Oaks seeing significant growth. According to the Monterey County Housing Element, housing development is expected in seven distinct community areas within Monterey County where infrastructure and services are available. These seven community areas include Rancho San Juan, Fort Ord, Castroville, Pajaro, Boronda, San Lucas, and Pine Canyon. Development of all types including residential, industrial, and commercial is encouraged in cities and areas directly adjacent to cities.

AMBAG assigns each community within its jurisdiction a “fair share” of the regional housing needs, and the communities are required to show how they will meet these needs. Based on the 2008 AMBAG Regional Housing Needs Plan, the total number of new housing units that need to be constructed in unincorporated Monterey County between 2008 and 2015, in order to meet unincorporated Monterey County’s “fair share” of the regional housing need, is 1,554. Of this amount, 347 units need to be very-low income, 261 units of low income, 295 units of moderate income, and 651 units moderate income. The housing type predominate throughout the county regardless of geographic area is a single-family unit. Approximately 82% of the housing stock was single-family units in the unincorporated areas of the County as of January 2000. Single-family units have accounted for the majority of new construction in the unincorporated areas of the County in recent years. From 1994-99, 2,190 single-family building permits were issued while permits for only 68 multi-family units were issued during that time. The 2003 Monterey County Housing Element has not been updated for 2008 identifying how the County will meet its “fair share” of affordable housing for the 2008-2015 time period. **Table 4.11-3** shows the residential

potential for the Villas de Carmelo project site according to the project application. The Housing Element allows for variations to the residential portion as long as the housing objectives are met pursuant to the goals identified in the Monterey County General Plan.

Table 4.11-3 Residential Potential For Villas De Carmelo Under Current and Proposed Zoning			
Current Zone District	Allowable Housing Type	Average Density (Units/Acre)	Potential Number of Units
MDR/2-D(CZ) (Medium Density Residential)	Medium Density Residential	2	7.36
Proposed Zone District	Proposed Housing Type	Average Density (Units/Acre)	Potential Number of Units
HDR/12.5-D(CZ) (High Density Residential) <i>Market rate condominiums</i>	High Density Residential	12.5	~ 33
HDR/12.5-D(CZ) (High Density Residential) <i>Affordable Housing</i>	High Density Residential	12.5	~ 9
HDR/12.5-D(CZ) (High Density Residential) <i>Workforce Housing</i>	High Density Residential	12.5	~ 4
	TOTAL		~ 46
<i>Source: Villas de Carmelo Vesting Tentative Map</i>			

Regulatory Environment

Monterey County General Plan. The Monterey County General Plan provides policies for population and housing. The following policies are applicable to the project site and its potential growth inducing impacts:

Policy 27.1.1 Sufficient areas for residential uses shall be designated consistent with the County's growth policies and projections.

Policy 27.1.3 Residential growth should be concentrated in growth areas.

Policy 27.1.4 If appropriate, high density residential areas shall be designated closest to urban areas or unincorporated communities.

Policy 27.2.1 Residential areas shall be located with convenient access to employment, shopping, recreation, and transportation. High density residential areas should also be located with convenient access to public transport.

Monterey County Inclusionary Housing Ordinance. The County's Inclusionary Housing Ordinance was originally adopted in 1980 and has been revised several times since that date. Ordinance No. 04185, adopted in 2003, now requires that 20% of all new development meet the County's affordable housing

need either through provision of housing (either on or off-site) and/or payment of in-lieu fees. The Ordinance is applicable to the proposed development application.

Carmel Area Land Use Plan / Local Coastal Program. A low vacancy rate, high housing costs, and lack of rentals appear to be the key factors in reducing the accessibility of the Carmel coastal area to low and moderate income persons according to the Carmel Area Land Use Plan. Two groups especially affected are employees of the visitor serving sector and persons employed as domestic service personnel. However, there are two major constraints to providing adequate low and moderate-income housing in the Carmel area:

- the high costs of land and housing which preclude the general use of traditional housing assistance programs; and
- the lack of suitable locations for accommodating single and multiple-housing projects.

These constraints indicate that, for the foreseeable future, employee housing provided by a major employer may be the major source of affordable housing in the area. The Carmel Area Land Use Plan identified residential housing capacity of 148 units, at 2 units per acre on 656 acres, in the City of Carmel Vicinity and Carmel Meadows. The Carmel Area Land Use Plan provides policies for population growth and residential development. The following policy is applicable to the project site:

Policy 4.4.3.E.1 Infilling of existing residential areas according to the resource and scenic protection standards set forth in this plan is preferred over new residential development elsewhere.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Relevant Project Characteristics

The residential development proposed for this project would enhance the quality of the County's existing housing stock and provide affordable housing to the Carmel vicinity. Implementation of the project includes development of 46 residential units at 12.5 units per acre. Of those 46 units, 9 are proposed to be affordable at the moderate-income level and 4 are proposed to be workforce housing units. Affordability requirements for the units will be met per requirements of the County of Monterey Inclusionary Housing Ordinance No. 04185.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension or expansion of infrastructure);
- displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
- displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

The only threshold that would apply to the project is the inducement of population growth, since the project would not displace existing housing or people. Population trends have been compared for the Monterey County and the State of California.

Impacts and Mitigation

Displacement

The project site area is composed of one 3.68-acre parcel. The project site contains three existing buildings that have been essentially abandoned since 2005. The original buildings, the main hospital building and the garage/shop were constructed between 1928 and 1930. The third building, the nurses' quarters building located on the southern portion of the property was constructed in 1938. There are no existing people or housing located on the project site that would require displacement due to project implementation. ***The project would have no impact on displacement of housing.***

Population Growth

The proposed project would result in the addition of 46 residential units within the project area and could accommodate between 82 and 145 persons.¹ This is an increase in potential growth of approximately 38 units in comparison with the project site under existing zoning density. Under the existing zoning, the site would allow for 7.36 units which potentially could accommodate 13 to 23 new persons.² According to AMBAG, Monterey County is expected to experience a 20 percent growth increase between 2005 and 2030 (AMBAG 2008). Specifically, unincorporated Monterey County (which includes City of Carmel vicinity) is anticipated to experience a 7 percent growth increase (a population increase of 7,511) between the planning years of 2005 and 2030 (AMBAG 2008). The population upon build-out of the proposed project would account for approximately 2 percent of the projected growth for the unincorporated area of the County. The Carmel Area Land Use Plan identified residential housing capacity of 148 units for Carmel Vicinity including Carmel Meadows. If this project were to be developed under existing designations, of Medium Density Residential/2 acres per unit, the project would yield only 7 residential units. The proposed Carmel Land Use Plan amendment for higher density designation of the project site would result in an increase of 38 residential units for housing and an increase of 69 to 122 persons in population. The residential capacity is within the overall growth projections identified; therefore, no substantial changes in the population projections of the identified region are anticipated.

The proposed addition of 46 new residential units would induce population growth by creating housing opportunities in excess of what is currently available. However, this increase would not be substantially above the level currently projected by AMBAG for the region. Additionally, the 46 units would be deducted from the remaining 148 residential units allowed by the Carmel Area Land Use Plan and thus would not exceed residential growth capacity in the Carmel Area Land Use Plan area. Approval of the proposed project would not contribute a substantial portion of the future growth that is projected to occur within the County. ***This impact is considered less-than-significant and no mitigation is necessary.***

¹ Based on US Census average household size of 3.15 persons per household for Monterey County and 1.79 average household size for the City of Carmel-by-the-Sea.

² Based on US Census average household size of 3.15 persons per household for Monterey County and 1.79 average household size for the City of Carmel-by-the-Sea.

Affordable Housing

Monterey County's Inclusionary Housing Ordinance requires 20% of all new development meet the County's affordable housing need either through provision of housing (either on or off-site) and/or payment of in-lieu fees. The Ordinance is applicable to the proposed development application. The Ordinance further requires that, of this 20%, at least 6% of the units be for very low-income households, 6% for low-income households, and 8% for moderate-income households. As per the project application, the Villas de Carmelo Project would provide 9 affordable housing units at the moderate-income level. These units are proposed to be affordable to moderate income households according to income limits established by State Department of Housing and Community Development for Monterey County. This proposal is not currently consistent with Ordinance provision that at least 6% of the units be for very low-income households, 6% for low-income households, and 8% for moderate-income households. As part of the project application, the applicant has proposed a modification to the County's Inclusionary Housing Ordinance #04185, and as such, the applicant will be required to make appropriate findings demonstrating that the modification is justified due to the specific characteristics of the project. The County's Housing Advisory Committee will consider the request and makes a recommendation to the approving bodies. As a condition of approval, the project applicant/developer will be required to execute an Inclusionary Housing Agreement that provides for the construction and restrictions of the onsite inclusionary units to meet the requirements in the Inclusionary Housing Ordinance and adopted Administrative Manual. If the County approval bodies agree to the request to provide affordable units at the moderate income household level only, the project would be consistent with Monterey County's Inclusionary Housing Ordinance as proposed. The project meets the 20% overall requirement for affordable housing as currently proposed and the County will condition the project on the appropriate level of affordability to ensure compliance with the Inclusionary Housing Ordinance. ***This impact is considered less-than-significant, and no mitigation is necessary. Application of County conditions of approval for compliance with the Inclusionary Housing Ordinance will be required as discussed above.***

Cumulative Impacts

The geographic scope of this analysis is the Carmel Land Use Planning Area as designated by the Monterey County General Plan. Implementation of the proposed project would introduce new residential development within the neighborhood of the project site. The project site is surrounded by single-family housing and a multi-family apartment building on its northern, southern, and western borders, while its eastern border abuts Highway 1. There are no other planned development projects in the project site's immediate vicinity within the Carmel Area Land Use Planning Area or within the City of Carmel-by-the-Sea that would, in consideration with the Villas de Carmelo Project, result in the intensification of development in the area. The Carmel Area Land Use Plan identified residential housing capacity of 148 units, at 2 units per acre on 656 acres, in the City of Carmel Vicinity and Carmel Meadows. As discussed above, the project proposes a higher density designation than what is currently allowed, resulting in increases of residential units and population for the project site. If other parcels in the Carmel Land Use Plan area are proposed for plan amendments or re-zoning related to a change to higher density, those actions would be subject to discretionary review and approvals. ***Therefore, the proposed project would not contribute to the cumulative change in the population projections of the surrounding area.***

4.12 PUBLIC SERVICES AND RECREATION

Introduction

This section assesses the proposed project's potential impacts on public services and recreation. To obtain information from public service providers, DD&A contacted the Monterey County Sheriff Department Coastal Station and the Monterey County Fire Department Carmel Hill Station in order to gather information on existing fire and police facilities, staffing for the project area, and current target response times. The Carmel Unified School District was contacted to obtain information on current student enrollment. Monterey County Parks and Recreation Department was contacted to gather information on recreational uses in Monterey County.

Setting

Police

The project site is in the unincorporated area of Monterey County and would be served from the Monterey County Sheriff's Office Coastal Station, located in Monterey on Aguajito Road. This station is currently staffed with twenty-two sworn officers, which include sixteen deputies, four sergeants, one detective, and one commander. The station is responsible for the unincorporated areas of the Monterey Peninsula, including Carmel, Carmel Valley, and approximately 90 miles of the Big Sur coastline south of Monterey.

The Coastal Station's patrol beats consist of four deputies for the day shift, five deputies for the swing shift, and two deputies for the midnight shift. The estimated response time is varied depending on the location, number of personnel on duty and time of the call; however, the general range is five to ten minutes. Residential development on the project site concurrent with existing zoning would allow for 7.36 units that potentially could accommodate 13 to 23 new persons that would require police protection services.

Fire

The project site is located in the unincorporated Monterey County coastal zone area, specifically within the Cypress Fire Protection District (CFPD). Under contract with the CFPD, the California Department of Forestry and Fire Protection (CAL FIRE) provides primary fire protection service to the vicinity of the project site. The Cypress Fire Protection District's nearest fire station is the Carmel Hill Fire Station located on 17-Mile Drive below the Highway 1 Entrance Gate to Pebble Beach area of Monterey County, located at 4180 17 Mile Drive approximately 0.78 miles north of the project site. Ownership of the fire station is divided between the Cypress Fire Protection District, Pebble Beach Community Service District, and CAL FIRE. In addition, the Carmel-by-the-Sea Fire Department, which is located 0.65 miles southwest of the project site at the intersection of 6th Avenue and Mission Street, provides fire protection service to the vicinity of the project site.

As of 2008, the District is staffed with eight persons and one Battalion Chief. Staffing for the Department is on duty 24 hours a day, seven days a week. The Cypress Fire Protection District provides both emergency response and prevention services to the community. The prevention activities include inspections, public education presentations, and advice to the general public on fire protection systems, safety issues, and concerns. Emergency services provided include fire suppression (structural, vegetation, and vehicular fires), paramedic emergency medical response, vehicular accident response, hazardous materials, detection and removal, and rescue situations that include extrication and basic confined space

rescue. Additionally, the Cypress Fire Protection District has a fire prevention program that conducts plan checks for new construction and renovations of structures.

In 2007, the Cypress Fire Protection District responded to 539 emergency calls. The Department responds to fires, medical emergencies, rescues, and services calls under a 24-hour a day operation. The Cypress Fire Protection District's response times vary based on the proximity of the incident in relation to the location of the fire station; however, its 2007 average response time was less than four minutes. The four-minute travel time recommended by the National Fire Protection Association (NFPA) covers approximately the entirety of the unincorporated area of Monterey County adjoining the city of Carmel-by-the-Sea. The project site is within the four-minute travel time. Residential development on the project site concurrent with existing zoning would allow for 7.36 units, which potentially could accommodate 13 to 23 new persons that would require fire protection services.

Schools

Carmel Unified School District (CUSD) is located approximately 120 miles south of San Francisco adjacent to the communities of Monterey. The District's total coverage area is 594 square miles. There are four distinctive population centers within the boundaries of CUSD: Carmel-by-the-Sea, Carmel Valley, Pebble Beach, and Big Sur. CUSD is a unified school district with grade pre-Kindergarten through 12th grade. Current enrollment is approximately 2,166 students. The district is comprised of three Kindergarten-5th grade schools, one 6th-8th grade middle school, one 9th-12th grade high school, a continuation high school, an adult school, and Child Development Center serving children aged 6 weeks to 11 years.

CUSD relies on local property tax base for funding and employs approximately 165 certified and 170 classified staff members. The CUSD provides a wide range of educational and support services for students of preschool age through adult. There are no community colleges or higher education facilities located in the City of Carmel-by-the-Sea.

Schools that are expected to serve the proposed project include Carmel River School (Grade levels K-5), Carmel Middle School (Grade levels 6-8), and Carmel High School (Grades 9-12). According to the Carmel Unified School District's most recent figures, current enrollment for each school is as follows: Carmel River School (418 students), Carmel Middle School (506 students), and Carmel High School (763 students). Residential development on the project site concurrent with existing zoning allow for 7.36 units, which potentially could result in 4 new students entering the CUSD.

Recreation

According to the Monterey County General Plan, almost 14% of the County's total land area is devoted to parks and recreational facilities operated and maintained by various governmental entities. The county parks system, managed by the County of Monterey Parks Department, comprises of roughly 10% of the County's total park acreage. There are currently eight county regional parks within Monterey County that offer a variety of recreational opportunities for residents and tourists.

The City of Carmel-by-the-Sea has a number of parks and outdoor recreation facilities, including a 21.5-acre public beach and walkway, Mission Trail Park, Forest Hill Park, Piccadilly Park, and Devendorf Park. Maintenance of the city parks is administered by the city's Forestry Commission.

Regulatory Environment

Monterey County General Plan. The Monterey County General Plan provides policies for protection of public services. The following policies are applicable to the project site and its relation to public services:

Policy 17.3.1 In no case shall a roadway be less than 12-feet wide. Determination of the width of an all-weather surface shall be made at the time of subdivision approval. Further, the County shall revise its subdivision ordinance to address road standards including minimum width, height clearance, gradient, and materials; these standards shall pertain to all new development. Minimum road widths of all new driveways, roads, and streets shall be designed, constructed, and maintained according to adopted County Standards (Appendix D: Standard Detail, 1977).

Policy 17.3.2 The County shall require the creation of road maintenance agreements for all new private subdivision roads.

Policy 17.3.3 The County shall encourage all new development to be located within the response time of 15 minutes from the fire station responsible for serving the parcel. If this is not possible, on-site fire protection systems (such as fire breaks, fire-retardant building materials, and/or water storage tanks) approved by the fire jurisdiction must be installed or development may only take place at the lowest density allowed for the parcel by the General Plan.

Policy 17.3.4 The County shall require all new development to have adequate water available for fire suppression. Water availability can be provided from a conventional water system; from an approved alternative water system if within 300 feet of a habitable structure; by the fire fighting equipment of the fire district within which the property is located; or by an individual water storage facility (water tank, swimming pool, etc.) on the property itself. The fire and planning departments shall determine the adequacy and location of individual water storage to be provided.

Policy 17.3.5 Water systems constructed, extended or modified to serve a new land use or a change in land use or an intensification of land use shall be designed to meet, in addition to the average daily demand, the County standards, subject only to changes authorized pursuant to Policy Number 17.4.2.

Policy 17.3.8 The maximum grade of the road shall not exceed 15 percent.

Policy 17.3.9 The road shall have an overhead clearance of 13 feet, 6 inches vertical distance for its entire width and length, including turnouts.

Policy 17.3.10 A road or driveway serving as access to any habitable structure shall not end farther than 150 feet from said structure. A turning area which meets the requirements of the fire department shall be provided at the end of the road.

Policy 17.3.11 Obstruction of the road width (Policy 17.3.1), including the parking of vehicles, shall be prohibited.

Policy 17.3.14 All access roads and driveways shall be maintained by the responsible parties to ensure the fire department safe and expedient passage at all times.

Policy 17.3.15 Gates on emergency access roadways shall have a minimum width of 12 feet with the gate fully open.

Policy 17.4.2 Every building, structure, and/or development shall be constructed to meet, at minimum, the requirements specified in Volume I of the current edition of the Uniform Building Code, Fire Hazards Policy 17.3.5, and County standards of the general plan. The chief of the fire agency having jurisdiction may recommend to the appropriate decision-making authority a variation of the general plan fire hazard policies and County standards (but not U.B.C. standards) for such development where, in his opinion, the fire safety of the County and adjoining and nearby properties and improvements is not materially impaired by such variation.

Policy 17.4.4 House numbers shall be posted on the property so as to be clearly visible from the road. Where visibility cannot be provided, a post or sign bearing the house numbers shall be set adjacent to the driveway or access road to the property. House numbers shall be posted when construction begins.

Policy 17.4.7 The County shall require all subdivisions, multi-unit residential complexes, and commercial and industrial complexes to obtain, prior to permit approval, a statement from the fire department that adequate structural fire protection is available within minimum response time established by this Plan.

Policy 47.1.1 The County Planning Department with the cooperation of other appropriate agencies shall provide, at the earliest possible occasion, its best estimate of increased enrollment generated by new housing development to the affected school districts.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services:
 - fire protection;
 - police protection;
 - schools;
 - parks; or
 - other public facilities;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands;
- increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impacts and Mitigation

Police

The project site is located within the jurisdiction of the Monterey County Sheriff's Department, which provides police protection services to the unincorporated areas of Monterey County. The project site is served by the Sheriff's Office Coastal Station, located at 1200 Aguajito Road, roughly 2.5 miles northeast of the project site. The Coastal Station is currently staffed with twenty-two sworn officers and two professional staff members. There are three shifts per day with a minimum of two deputies on duty at all times. The project site is located within Beat 6B and is patrolled by one on-duty officer. The most prevalent types of crime with the project area are vehicle thefts and vehicle burglaries (pers. comm. Galletti, September 25, 2008).

The proposed project would result in the addition of 46 residential units within the project area and could accommodate between 82 and 145 persons (for further discussion see **Section 4-11 Population & Housing**). While project development would result in an increase in the number of calls for police protection services, the proposed development would have a negligible impact on existing service levels, as the overall area of police protection services would not be expanded and average response time for police services would not be impacted. However, standard Monterey County conditions of approval would apply. *This represents a less-than-significant impact, and no mitigation measures are necessary.*

Fire

Implementation of the proposed project would create an increased demand for fire services due to the increase in the square footage and the development of new residential units. Project development would result in the introduction of approximately 145 persons within the County and would effectively increase the response area for fire services. The increased demand for fire protection services would be generated by the expansion of the service area and the potential for fire hazards, including but not limited to, structural fires, medical emergencies, and hazardous conditions associated with project build out and the proposed increased density of the project site.

Average response times to the main entrance of the project site would be less than four minutes. Project development would not impact existing response times for fire protection services as the actual fire services coverage area would not be increased. The Cypress Fire Protection District would not require any new or additional engine companies to serve the project. The Cypress Fire Protection District would continue to respond from its station at 4180 17 Mile Drive in the Pebble Beach area to all emergency calls in the area of the project site in unincorporated Monterey County (e-mail correspondence, Battalion Chief Robin Hamelin, September 10, 2008).

The proposed project would result in the addition of 46 residential units within the project area and could accommodate between 82 and 145 persons (for further discussion see **Section 4-11 Population & Housing**). While project development would result in an increase in the number of calls for fire protection services, the Cypress Fire Protection District has indicated that the proposed development would have a negligible impact on existing service levels, as the overall area of fire protection services would not be expanded. However, standard Monterey County conditions of approval would apply. *This represents a less-than-significant impact, and no mitigation measures are necessary.*

Schools

The proposed project is within the school service boundaries of CUSD. Residential development has the potential to generate additional school-age children who would require educational services from the CUSD. Using the pupil-per-home yield rates for projected new residential development and density, as seen in the table below, as many as 22 students could be generated, as shown below in **Table 4.12-1, Projected Student Generation**.

Table 4.12-1 Projected Student Generation	
	<i>Med Yield</i>
K-6th	0.25
6th - 8th	0.08
9th - 12th	0.12
Students Generated:	
K-6th	.25 X 46 = 11.5
6th-8th	.08 X 46= 3.68
9th-12th	.12 X 46 = 5.52
Total:	22

The CUSD currently operates three (3) K-5 schools, one (1) 6-8 school, one (1) comprehensive high school, one (1) continuation high school, one (1) adult school, and one (1) Child Development Center. Development of the proposed residential uses would generate additional students associated with an increase in population. Implementation of the proposed project would be expected to result in twelve new students in the K-5 grade range, four in the 6-8 range, and six in the 9-12 grade range. The addition of these students into the CUSD would not exceed the capacity of each school expected to receive an increase in enrollment as a result of the proposed project.

The proposed project does not include development of new school sites. Due to the low number of students that would be generated with the build-out of the project, no new school facilities would be needed on-site or in the project's vicinity. While overcrowding itself does not constitute a significant effect on the environment, previous court rulings have determined that overcrowding would constitute a significant impact if it would ultimately require physical changes in the environment, such as construction of new school facilities. As previously discussed, project development could result in the addition of 22 students into the CUSD system. This is considered a potentially significant impact that can be reduced to a less-than-significant level through the incorporation of mitigation. To minimize project impacts, school impact fees will be paid to the school district to mitigate project-related impacts. California State law (Government Code Section 65995) specifies the payment of a school impact fee for each type of new development as an acceptable method of offsetting the effect of new development on the adequacy of school facilities. The fees set forth in Government Code Section 65996 constitute the exclusive means of both "considering" and "mitigating" school facilities impacts of projects [Government Code Section 65996(a)].

Development on the project site would result in payment of development fees to the CUSD. The maximum statutory school fees the CUSD can currently collect for new residential development is \$1.93 per square foot. These fees would be used for the development of new schools, expansion or improvement of existing school facilities, or to fund school services. *Implementation of the mitigation identified below would ensure that project-related impacts are reduced to a less-than-significant level.* Implementation of the following mitigation would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **The project would result in an increased demand for educational services. *This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measure.***

Mitigation

4.12-1 In order to minimize impacts to educational services, the applicant/developer shall pay a school impact fee for multi-family residential development pursuant to the criteria set forth within California Government Code Section 65995, \$1.93 per square foot assessable space. Assessable space shall be considered the entire square footage within the perimeter of a residential structure, not including carport, walkway, garage, overhand, patio, enclosed patio, detached accessory structure, or similar area. Prior to the issuance of building permits, the applicant shall pay required school mitigation fees to the Carmel Unified School District.

Parks and Recreation

Project development would not increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated. The project does not include recreational facilities nor require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Although the proposed project has the potential to result in an increased demand on existing recreational facilities, project-related impacts are considered less-than-significant since the project would be required to adhere to applicable County of Monterey standard conditions of approval pertaining to recreational requirements. Specifically, Section 19.12.010 of the Monterey County Subdivision Ordinance states that as a condition of approval of a tentative map, the developer shall dedicate land, pay a fee in lieu of land, or both at the option of the County for park and recreational purposes. Therefore, the proposed development would be required to comply with the recreation requirements, as contained in Section 19.12.010 of the Subdivision Ordinance, by paying a fee in lieu of land dedication. ***This represents a less-than-significant impact, and no mitigation measures are necessary.***

Cumulative Impacts

The geographic scope for this analysis is the project site's immediate vicinity, the Carmel Land Use Planning Area, and Monterey County. The incremental increase in demand for the provision of fire protection, police protection, schools, and park facilities associated with the proposed project, in conjunction with other cumulative development, represents an increase in cumulative demand for services. Based upon the above project-level analysis, impacts to public services and recreation will be less-than-significant for the proposed project. There are few planned projects in the immediate vicinity of the project site or in the Carmel Land Use Planning Area that would result in the significant increase of demands for services. However, development of present or probable future projects listed in **Section 5.0 CEQA Considerations** would be expected to increase the service demands within the geographic scope of this analysis and Monterey County, as a whole. While the development of the proposed project and other projects occurring within its vicinity would result in an increased demand for public services, each project would be required to contribute its proportionate share towards the provision of these services. Although the incremental demands on public services associated with projected regional development represents a potentially significant cumulative impact, the project as proposed would have a less-than-significant impact upon any of these services, therefore, the project's contribution to any cumulative significant impacts is not cumulatively considerable and therefore less-than-significant.

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4.13 TRAFFIC AND CIRCULATION

Introduction

The traffic section evaluates the potential traffic and circulation impacts on nearby roadways due to project implementation and operation. Discussions also include determinations of significance and corresponding mitigation. A Traffic Impact Analysis (TIA) prepared for the proposed Villas de Carmelo project by Higgins Associates, a division of Hatch Mott MacDonald (December 2007) and was submitted as part of the project application materials. Per Monterey County Planning Department request, a peer review of the TIA was conducted by Hexagon Transportation Consultants, consulting traffic engineers for the Draft EIR. Higgins Associates revised the TIA to include suggestions from the peer review (September 4, 2008). The revised TIA was again subject to peer review by Hexagon Transportation Consultants. The complete set of documents and their respective peer reviews are available for review at the Monterey County Planning Department. Furthermore, the conclusions and recommendations of the TIA and peer review were reviewed by the Monterey County Public Works Department. The following discussion and analysis incorporates information from the revised TIA, which can be found in **Appendix K** of this Draft EIR.

Setting

Roadway Network

Key roadways near the study area are Highway 1, Carpenter Street, Ocean Avenue, Valley Way, and Flanders Drive. Other local streets within the study area are 1st, 2nd, and 3rd Avenues, Monterey Street, Lobos Street, Lower Trail, and Santa Fe Street. The roadway network in the project area is presented in **Figure 4.13-1** and summarized below. The intersections analyzed for the project are also summarized below with discussion of the responsible agencies.

Highway 1 has four travel lanes (2 lanes in each direction) north of Ocean Avenue. South of Ocean Avenue, southbound Highway 1 transitions to one lane. The posted speed limit is 65 miles per hour (mph) north of Carpenter Street and 40 mph south of Carpenter Street.

Carpenter Street is a two-lane collector street that extends northerly from Ocean Avenue to Highway 1, providing access to downtown Carmel. The posted speed limit on Carpenter Street north of Valley Way is 30 mph and 25 mph south of Valley Way.

Ocean Avenue is an east-west, two-lane arterial street that extends from Highway 1 to downtown Carmel and the coast. The posted speed limit on Ocean Avenue is 25 mph.

Valley Way is a local street that extends from Guadalupe Street to Highway 1. It primarily serves the surrounding residential neighborhoods. The posted speed limit along Valley Way is 25 mph. There is an unmarked bus stop at the intersection of Valley Way with 1st Avenue and Monterey Street.

Flanders Drive is a local street that provides access from Highway 1 to Carmel High School and surrounding residential neighborhoods. The posted speed limit on Flanders Drive is 25 mph.

1st Avenue is a local street that extends in an east-west direction between Junipero Street to the west and Valley Way to the east.



Figure
4.13-1

2nd Avenue is a local street that extends in an east-west direction between Junipero Street to the west and Monterey Street to the east.

3rd Avenue is a local street that extends in an east-west direction between Mission Street to the west and Highway 1 to the east. However, 3rd Avenue does not provide continuous access between these two points because the roadway dead ends at Carpenter Street. Vehicles traveling eastbound on 3rd Avenue west of Carpenter Street must turn either left or right at Carpenter Street. Similarly, vehicles traveling westbound on 3rd Avenue east of Carpenter Street must turn either left or right at Lobos Street to avoid the dead end. This roadway configuration was implemented in order to reduce cut-through traffic to and from Highway 1.

Monterey Street is a local street that extends in a north-south direction between Valley Way to the north and 3rd Avenue to the south.

Lobos Street is a local street that extends in a north-south direction between Valley Way to the north and 4th Avenue to the south.

Lower Trail is a local street that extends in a general north-south direction between Carpenter Street to the north and Valley Way to the south. Lower Trail provides access to the homes located on Lower Trail and Upper Trail.

Santa Fe Street is a local street that extends in a north-south direction between Pico Avenue to the north and 6th Avenue to the south.

The **Highway 1/Carpenter Street** intersection is a signalized four-leg intersection. Left-turn bays are provided on all approaches with dual left-turn lanes on the eastbound approach. Protected left-turn phasing is provided on the northbound and southbound approaches. The eastbound and westbound approaches provide split phase left turns. The westbound approach provides a permitted right-turn, as well as right-turn overlap phasing. The southbound right-turn movement is a free movement with no stop control. The State of California Agency that has jurisdiction over the intersection is Caltrans.

The **Carpenter Street/Valley Way** intersection is a four-leg intersection with two-way stop control on the eastbound and westbound approaches. Although the westbound approach is not striped as two lanes, it is flared such that it operates as a right turn lane and shared through-left turn lane. The County of Monterey Agency that has jurisdiction over the intersection is the Monterey County Department of Public Works.

The **Highway 1/Valley Way** intersection is a three-leg intersection with stop control on the eastbound approach. Valley Way intersects Highway 1 at approximately a 20-degree angle measured from the north. No right turn lane is provided on southbound Highway 1. A two-way left turn lane is provided on northbound Highway 1 at Valley Way. Eastbound left turns onto Highway 1 are not prohibited, but are discouraged by the existing intersection geometry. As such, they are rarely observed. The State of California Agency that has jurisdiction over the intersection is Caltrans.

The **Highway 1/Flanders Drive** intersection is a three-leg intersection with stop control on the westbound approach. A left turn bay is provided on the southbound approach. The State of California Agency that has jurisdiction over the intersection is Caltrans.

The **Highway 1/Ocean Avenue** intersection is a signalized four-leg intersection. Left turn bays are provided on all approaches. Protected left turn phasing is provided on the northbound and southbound approaches. The eastbound and westbound approaches provide split phase left turns. The southbound approach provides a permitted right turn, as well as right turn overlap phasing. Just south of the

intersection, southbound Highway 1 transitions from two southbound through lanes to one southbound through lane. The State of California Agency that has jurisdiction over the intersection is Caltrans.

The **Lower Trail/Valley Way** intersection is located immediately east (approximately 80 feet) of the Carpenter Street/Valley Way intersection. The southbound Lower Trail approach is stop-controlled. The County of Monterey Agency that has jurisdiction over the intersection is the Monterey County Public Works Department.

The **Lobos Street/Valley Way** intersection is located approximately 175 feet east of the Lower Trail/Valley Way intersection and has stop-control on the northbound Lobos Street approach. The City of Carmel-by-the-Sea holds jurisdiction over the intersection.

The **Monterey Street/1st Avenue/Valley Way** intersection is a skewed four-leg intersection located approximately 350 feet east of the Lobos Street/Valley Way intersection. The northern leg of this intersection is a private driveway. The northbound Monterey Street and eastbound 1st Avenue approaches are stop-controlled at this intersection. The City of Carmel-by-the-Sea holds jurisdiction over the intersection.

The **Monterey Street/2nd Avenue** intersection is a three-leg intersection with stop control on the eastbound 2nd Avenue approach. This intersection is located approximately 460 feet south of the Monterey Street/1st Avenue/Valley Way intersection. The City of Carmel-by-the-Sea holds jurisdiction over the intersection.

The **Carpenter Street/1st Avenue** intersection is a four-leg intersection located approximately 450 feet south of the Carpenter Street/Valley Way intersection. Stop control is provided on the eastbound and westbound 1st Avenue approaches. The City of Carmel-by-the-Sea holds jurisdiction over the intersection.

The **Carpenter Street/2nd Avenue** intersection is a four-leg intersection located approximately 450 feet south of the Carpenter Street/1st Avenue intersection. This intersection is all-way stop controlled. It should also be noted that signage at this intersection directs southbound trucks to turn right at 2nd Avenue to follow the truck route, rather than proceeding straight on Carpenter Street. A five-foot landscaped median is located on Carpenter Street just south of this intersection. The City of Carmel-by-the-Sea holds jurisdiction over the intersection.

The **Highway 1/3rd Avenue** intersection is a three-leg intersection located approximately 140 feet south of the Highway 1/Valley Way intersection. The eastbound 3rd Avenue approach is stop-controlled. The State of California Agency that has jurisdiction over the intersection is Caltrans.

The **Santa Fe Street/3rd Avenue** intersection is a four-leg intersection with stop control on the northbound Santa Fe Street and westbound 3rd Avenue approaches. The southbound Santa Fe Street and eastbound 3rd Avenue approaches are not stop-controlled and are part of the designated truck route. The City of Carmel-by-the-Sea holds jurisdiction over the intersection.

Traffic Impact Report

As mentioned previously, a TIA was prepared for the project by Higgins Associates (refer to **Appendix K**). Discussion from the report includes: 1) Traffic Methodology; 2) Identified Existing Conditions; 3) Intersection Operations; 4) Road Segment Analysis; 5) and Recommendations. The impacts identified in this report and the recommended mitigation measures have been integrated into the impacts and mitigation discussion of this section. The TIA also provided an analysis of indirect traffic impacts

associated with the project, which has been included at the end of this section. The TIA analyzed traffic conditions under the following scenarios:

1. Existing Traffic Conditions (2008)
2. Existing Plus Project Traffic Conditions
3. Cumulative Without Project Traffic Conditions
4. Cumulative Plus Project Traffic Conditions

Traffic Methodology

Traffic conditions were analyzed for intersections and road segments based on level of service (LOS) evaluations. LOS is a measure of roadway quality of service. LOS describes traffic conditions on a scale of A to F, with LOS A indicating free flow conditions with minimum delay and LOS F representing severe congestion with major delay.

The project study area covers the jurisdiction of multiple public agencies. Each agency establishes acceptable LOS standards for roadway facilities within its jurisdiction. These standards are identified below.

- The City of Camel-by-the-Sea has established LOS C as its LOS standard.
- The County of Monterey suggests LOS C as an acceptable LOS.
- The Caltrans level of service goal is the transition between LOS C and D.

The traffic impact analysis evaluated 13 intersections, and three road segments in the vicinity of the project site, as listed below by jurisdiction.

Caltrans Intersections

- Highway 1/Carpenter
- Highway 1/Valley Way
- Highway 1/Flanders Drive
- Highway 1/Ocean Avenue
- 12. Highway 1/Third Avenue

Monterey County Intersections

- Carpenter Street/Valley Way
- Lower Trail/Valley Way

City of Carmel-by-the-Sea Intersections

- Lobos Street/Valley Way
- Monterey Street/First Avenue/ Valley Way
- Monterey Street/Second Avenue
- Carpenter Street/First Avenue
- Carpenter Street/Second Avenue
- Santa Fe Street/Third Avenue

Road Segments- Caltrans

- Highway 1 between Carpenter Street and Valley Way
- Highway 1 between Valley Way and Flanders Drive
- Highway 1 between Flanders Drive and Ocean Avenue

For both signalized and two-way stop controlled intersections, LOS calculations were performed using SYNCHRO software program (version 7), based on technical procedures documented in the 2000 Highway Capacity Manual (HCM). The 2000 HCM methodology is based on control delay per vehicle. Total control delay includes not only the actual time stopped but also time to slow down, accelerate, and travel at reduced speeds in queues. LOS for a two-way stop-controlled (TWSC) intersection is determined by the control delay for each minor movement, as per HCM 2000 definition. The analysis also includes LOS for the unsignalized intersection as a whole. Overall intersection delays presented in this report are based on a weighted averaging of the control delay on each individual lane grouping on all intersection approaches.

The existing signal timing information for the Highway 1/Carpenter Street and Highway 1/Ocean Avenue intersections was obtained from the Caltrans District 5 office and was used as the basis for the SYNCHRO analyses. LOS for road segments were determined based upon threshold volumes for the appropriate roadway type. It was assumed that the study segments along Highway 1 operate as a four-lane expressway. Additionally, the impact of the project on the regional roadway network is evaluated in the 2005 Monterey County Regional Transportation Plan prepared by the Transportation Agency for Monterey County (TAMC).

Identified Existing Conditions

To establish existing traffic flow conditions, traffic counts were performed during the weekday on Wednesday, August 6 and Thursday, August 7, 2008, from 7:00 to 9:00 AM and 4:00 to 6:00 PM and on Saturday, August 9, 2008, from 1:00 to 3:00 PM at all 13 study intersections.

Since the counts were performed in August, when schools were not in session, adjustments were made to the existing condition AM peak hour volumes to account for this decrease in vehicle volumes. Adjustments were made only to weekday AM peak hour volumes because the start of the school day occurs during the AM peak period (7:00 to 9:00 AM), while the end of the school day occurs prior to the PM peak period (4:00 to 6:00 PM). Counts were also performed in November 2006 at five of the study intersections while school was in session, and these were used to determine appropriate adjustment factors for the existing condition AM peak hour volumes collected in August 2008. The ratio between the 2006 AM and PM peak hour volumes for each intersection movement was determined and applied to the 2008 PM peak hour volumes to calculate the adjusted AM peak hour volumes.

In addition to the adjustments made to the existing AM peak hour volumes to account for school traffic, a seasonal adjustment was made to existing weekday AM and PM and Saturday peak hour volumes to adjust for the seasonality in the area. The average of the 2003, 2004, 2005, 2006, and 2007 Average Annual Daily Traffic (AADT) volumes along Highway 1 as published by Caltrans was used to determine an appropriate seasonal adjustment factor between the August volumes and an average month. This adjustment factor was then applied to the traffic volumes collected during the August counts.

Intersection Operations

All of the study intersections operate acceptably during the weekday AM peak hour under existing conditions. During the weekday PM peak hour, all of the study intersections operate acceptably, except

for the Highway 1/Carpenter Street intersection, which operates at a deficient LOS D. All of the study intersections operate acceptably during the Saturday afternoon peak hour, except for the Highway 1/Ocean Avenue intersection, which operates at a deficient LOS D. A summary of the existing LOS for study intersections is provided in **Figure 4.13-2**.

Road Segment Analysis

Under existing conditions, all three of the study road segments (Highway 1 from Carpenter Street to Valley Way, Highway 1 from Valley Way to Flanders Drive, and Highway 1 from Flanders Drive to Ocean Avenue) operate at an acceptable LOS C during weekday AM peak hour. However, during the weekday PM and Saturday afternoon peak hours, all three study road segments operate at a deficient LOS D. A summary of the existing LOS for study road segments is provided in **Figure 4.13-3**.

Recommendations

The TIA identified several recommended improvements discussed in the 2005 Monterey County Regional Transportation Plan (RTP), prepared by TAMC, which would affect the project vicinity. The report also included several additional recommendations in their analysis to improve existing conditions. Those planned improvements and additional recommendations are discussed below.

The 2005 Monterey County RTP includes capacity improvements along the Highway 1 corridor in Carmel between the Carmel River Bridge and Carpenter Street on its Unconstrained Regional Project List. These improvements include, but are not limited to, widening Highway 1 in this area to add two more lanes with at-grade or grade-separated interchange improvements. This improvement corridor includes three of the study intersections analyzed in this report, namely the Highway 1/Carpenter Street, Highway 1/Flanders Drive, and Highway 1/Ocean Avenue intersections.

As a component to the corridor-wide improvements, the RTP Unconstrained Regional Project List recommends that northbound Highway 1 be widened to accommodate three northbound lanes. This widening would begin south of the Highway 1/Carpenter Street intersection and continue through the intersection as an auxiliary lane north of the intersection. The auxiliary lane would end at the Highway 1/Highway 68 interchange. In addition, it is recommended that the eastbound approach at the Highway 1/Carpenter Street intersection be widened to accommodate two left-turn lanes, a shared left-through lane, and a dedicated right-turn lane. Additional RTP improvements also include widening of the eastbound and westbound approaches of the Highway 1/Ocean Avenue intersection to accommodate a left-turn lane, a shared left-through lane, and a dedicated right-turn lane.

In addition to the planned improvements in the RTP, the following improvements are recommended by the TIA to improve existing conditions:

1. Consider either widening the southbound shoulder at the Carpenter Street/Valley Way intersection to allow vehicles to pass vehicles waiting to turn left onto Valley Way, or consider changing this intersection to all-way stop control to eliminate the need for left-turn channelization on the southbound approach.
2. Increase the radius at the northwest triangular 'corner' of the Highway 1/Valley Way intersection to improve maneuverability for the southbound right turns onto Valley Way.
3. Remove and/or trim any trees or shrubs remaining on this corner that interfere with the sight distance from Valley Way to Highway 1.
4. Provide a right-turn flare on the southbound Highway 1 approach to Valley Way to provide deceleration for vehicles turning right from Highway 1 to Valley Way.

N-S Street	E-W Street	Existing Operational Lane Configuration	Existing Intersection Control	Overall LOS Standard	Existing Conditions									Existing + Project Conditions									Cumulative Conditions									Cumulative + Project Conditions									
					AM Peak Hr			PM Peak Hr			Saturday Peak Hr			AM Peak Hr			PM Peak Hr			Saturday Peak Hr			AM Peak Hr			PM Peak Hr			Saturday Peak Hr			AM Peak Hr			PM Peak Hr			Saturday Peak Hr			
					Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	
1	Highway 1	Carpenter Street	NB 1-L, 1-T, 1-T/R SB 1-L, 2-T, 1-R EB 2-L, 1-T, 1-R WB 1-L, 1-T/L, 1-R	Signal Mitigation ⁹	C/D	22.4	C	0.74	53.7	D	1.05	31.3	C	0.86	22.5	C	0.74	54.2	D	1.05	31.4	C	0.86	34.9	C	0.87	76.0	E	1.13	69.7	E	0.98	35.3	D	0.87	76.4	E	1.13	69.8	E	0.98
						18.3	B	0.68	24.8	C	0.79	21.0	C	0.79	18.4	B	0.68	25.1	C	0.79	21.2	C	0.80	20.7	C	0.73	30.8	C	0.89	27.6	C	0.89	20.8	C	0.73	31.3	C	0.87	27.7	C	0.89
2	Carpenter Street	Valley Way	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T, 1-R	Stop Sign (EB/WB) WA (WB)	C	1.2	A	C	1.2	A	C	1.0	A	C	1.4	A	C	1.4	A	C	1.2	A	C	1.2	A	C	1.2	A	C	1.0	A	C	1.4	A	C	1.4	A	C	1.2	A	C
3	Highway 1	Valley Way	NB 1-L, 2-T SB 2-T EB 1-T/R	Stop Sign (EB) WA (EB)	C/D	0.2	A	C	0.1	A	C	0.2	A	C	0.2	A	C	0.2	A	C	0.2	A	C	0.2	A	C	0.1	A	C	0.2	A	C	0.2	A	C	0.2	A	C	0.2	A	C
4	Highway 1	Flanders Drive	NB 1-T, 1-T/R SB 1-L, 2-T WB 1-L/T/R	Stop Sign (WB) WA (WB)	C/D	0.3	A	B	0.5	A	B	0.2	A	B	0.3	A	B	0.5	A	B	0.2	A	B	0.3	A	B	0.6	A	C	0.2	A	B	0.3	A	B	0.6	A	C	0.2	A	B
5	Highway 1	Ocean Avenue	NB 1-L, 1-T, 1-T/R SB 1-L, 2-T, 1-R EB 1-L, 1-L/T/R WB 1-L, 1-L/T/R	Signal Mitigation ⁹	C/D	25.3	C	0.85	33.2	C	0.93	36.6	D	0.94	25.4	C	0.85	33.5	C	0.93	36.9	D	0.94	29.1	C	0.90	47.3	D	0.97	55.0	D	1.04	29.3	C	0.90	47.7	D	0.97	55.6	E	1.04
						22.6	C	0.78	26.6	C	0.84	27.5	C	0.85	22.6	C	0.79	26.7	C	0.84	27.6	C	0.85	25.0	C	0.83	33.4	C	0.87	38.3	D	0.95	25.2	C	0.83	33.6	C	0.87	38.5	D	0.95
6	Lower Trail	Valley Way	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	Stop Sign (SB) WA (SB)	C	3.2	A	A	2.8	A	A	2.2	A	A	2.7	A	A	2.3	A	A	1.8	A	A	3.2	A	A	2.8	A	A	2.2	A	A	2.7	A	A	2.3	A	A	1.8	A	A
7	Lobos Street	Valley Way	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	Stop Sign (NB) WA (NB)	D	0.0	A	A	0.7	A	A	0.5	A	A	0.0	A	A	0.6	A	A	0.4	A	A	0.0	A	A	0.7	A	A	0.5	A	A	0.0	A	A	0.6	A	A	0.4	A	A
8	Valley Way - Monterey Street	First Avenue - Monterey Street	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	Stop Sign (NB & SB) WA (SB)	D	2.2	A	A	2.9	A	A	2.8	A	A	1.8	A	A	2.7	A	A	2.6	A	A	2.2	A	A	2.9	A	A	2.8	A	A	1.8	A	A	2.7	A	A	2.6	A	A
9	Monterey Street	Second Avenue	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	Stop Sign (WB) WA (WB)	D	5.6	A	A	3.7	A	A	5.2	A	A	5.3	A	A	3.8	A	A	5.0	A	A	5.6	A	A	3.7	A	A	5.2	A	A	5.3	A	A	3.8	A	A	5.0	A	A
10	Carpenter Street	First Avenue	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	Stop Sign (EB & WB) WA (EB)	D	0.4	A	C	0.4	A	C	0.5	A	B	0.4	A	C	0.4	A	C	0.5	A	B	0.4	A	C	0.4	A	C	0.5	A	B	0.4	A	C	0.4	A	C	0.5	A	B
11	Carpenter Street	Second Avenue	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	All-way Stop	D	11.6	B		15.2	C		10.9	B		11.6	B		15.5	C		11.0	B		11.6	B		15.5	C		11.5	B		11.7	B		15.7	C		11.1	B	
12	Highway 1	Third Avenue	NB 1-L, 2-T SB 1-T, 1-T/R EB 1-L/T/R	Stop Sign (WB) WA (WB)	C/D	0.1	A	D	0.1	A	D	0.1	A	C	0.1	A	D	0.1	A	D	0.1	A	C	0.1	A	D	0.1	A	E	0.1	A	D	0.1	A	D	0.1	A	E	0.1	A	D
13	Santa Fe Street	Third Avenue	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	Stop Sign (NB & EB) ¹⁰ WA (EB)	D	8.2	A		9.8	A		8.1	A		8.2	A		9.9	A		8.2	A		8.2	A		9.9	A		8.2	A		8.3	A		9.9	A		8.2	A	

NOTES:

1. L, T, R = Left, Through, Right.
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound
3. WA = Worst Approach
4. Level of service calculated using 2000 Highway Capacity Manual methodologies
5. Overall Monterey County level of service standard is LOS C.
6. Overall Caltrans level of service standard is LOS C/D.
7. Overall City of Carmel level of service standard is LOS D.
8. Worst approach level of service standard is generally LOS E. Level of service "F" is the level of service at which improvements would be required.
9. These improvements could be implemented as a component to the corridor-wide improvements to Highway 1 in the vicinity of Carmel, as included in the 2005 Monterey County Regional Transportation Plan Unconstrained Regional Projects List.
10. Synchro is unable to model the actual configuration of this intersection (stop-control on NB and EB approaches). Therefore, this intersection was analyzed as all-way stop, as a worst-case.

Source: Higgins Associates, 2008

Intersection Levels of Service Summary Table

Figure
4.13-2

Segment	HCM Classification	Number of Lanes	Existing Conditions			Existing + Project Conditions			Cumulative Conditions			Cumulative + Project Conditions		
			AM Peak Hr	PM Peak Hr	Sat Peak Hr	AM Peak Hr	PM Peak Hr	Sat Peak Hr	AM Peak Hr	PM Peak Hr	Sat Peak Hr	AM Peak Hr	PM Peak Hr	Sat Peak Hr
1 Highway 1 btw Carpenter Street and Valley Way	4E	4 Lane Expressway	3132 C	3777 D	3658 D	3133 C	3779 D	3660 D	3569 C	4042 D	4249 D	3570 C	4370 D	4251 D
2 Highway 1 btw Valley Way and Flanders Drive	4E	4 Lane Expressway	3160 C	3799 D	3689 D	3165 C	3804 D	3694 D	3597 C	4390 D	4280 D	3602 D	4395 D	4285 D
3 Highway 1 btw Flanders Drive and Ocean Avenue	4E	4 Lane Expressway	3099 C	3693 D	3618 D	3104 C	3697 D	3622 D	3536 C	4284 D	4209 D	3541 C	4288 D	4213 D

Source: Higgins Associates, 2007

Road Segment Levels of Service Table

Figure
4.13-3

Construction Traffic

Construction of the proposed project is anticipated to occur over a duration of eighteen months. Construction would primarily be accomplished using diesel powered heavy equipment. A variety of project construction activities would include clearing, excavation, and grading operations, import/export of fill material, and construction vehicle travel. The proposed project would be constructed in two phases. Phase 1 would include all planned demolition and grading activities on the project site, as well as all utility access infrastructure extensions. Phase 1 would involve construction of thirty of the proposed forty-six units on the project site (units 1-13 and units 30-46). Phase 2 would involve construction of the remaining proposed sixteen units on the project site (units 14-29). The project will require extensive grading on the site to facilitate construction of proposed uses. The site would be graded to utilize the existing topography including grading of slopes for parking garages and to minimize the height and visibility of the buildings. Proposed grading would occur throughout most of the site and would involve approximately 13,242 cubic yards (CY) of cut/fill. The grading will be subject to grading plan approval by the County of Monterey.

There are typically two different periods of grading: a “rough” or “mass” grading phase that requires excavators and dozers and then a “fine” grading phase that may include motor graders, rollers, scrapers, and loaders. This equipment is typically used from four to eight hours per day. Other phases of construction use smaller sized equipment (e.g., some loaders, forklifts), but include numerous heavy-duty truck deliveries for cement, asphalt, building materials, and landscaping materials.

Total earth disturbance has been estimated to be approximately 13,242 cubic yards (CY) with 9,589 CY of cut and 3,653 CY of fill. Therefore, the net amount of cut, which would be exported from the project site, would be 5,936 CY. Additional material would be imported to the site. This would include base rock, select soil/gravel for trenches and building pads, concrete, and asphalt for paving. Building materials would also be imported to the site. Net cut would be exported from the project site to the Monterey Peninsula Landfill or another appropriate disposal site. As such, traffic from these various activities would be ongoing throughout the demolition, building, and rehabilitation processes for the project site.

Regulatory Framework

Monterey County General Plan. The traffic element of the General Plan provides policies that promote a safe, effective, and economical transportation system that will service the existing and future land uses of the county. The following traffic goals apply to development in the project area:

37.2.1 Transportation demands of proposed development shall not exceed an acceptable level of service for existing transportation facilities, unless appropriate increases in capacities are provided for.

37.4.1 The County shall encourage overall land use patterns which reduce the need to travel.

37.5.1 The design and location of new development shall consider and incorporate provisions for appropriate transportation modes.

38.1.2 The effects of road noise on County roads and highways shall be mitigated to comply with all noise control policies of this General Plan.

38.1.5 Adequate traffic capacity shall be a criterion for development consideration.

39.1.1 All available public and private sources shall be used for the funding of road and highway development, improvement, and maintenance.

39.1.2 The cost of new roads shall be borne as equitably as possible among benefiting property owners and/or users.

39.1.3 Rights-of-way needed for new roads or expansion of existing roads shall be planned for; land uses that would preclude the timely development of such rights-of-way shall be prohibited.

39.1.4 New development shall be located where there is existing road and highway capacity or where adequate road and highway capacity will be provided.

39.2.1 All new road and interior circulation systems shall be designed, developed, and maintained according to adopted County standards.

39.2.5 Driveways, mid-block access points, intersections, and on-street parking shall be limited along major roads and highways, where possible.

40.2 Employ a cooperative planning effort among all public and private interests to implement appropriate land use techniques and controls for maintaining the scenic beauty and atmosphere of the scenic corridor.

40.2.1 Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.

40.2.2 Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density which, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.

Carmel Area Land Use Plan/Local Coastal Program. The Carmel Area Land Use Plan includes policies regarding traffic and circulation in the Carmel Area. Relevant, project-specific, policies are listed below.

3.1.3.7 The number of private roads and recreational access road entrances off Highway 1 should be limited whenever possible for traffic safety and management purposes.

3.1.3.9 Major development projects - both residential and recreation and visitor-serving, including significant expansion of existing facilities - should be required to contribute their "fair-share" towards improvements of Highway 1 required as a result of traffic generated by the particular project.

Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Thresholds of Significance

The County of Monterey's significance criteria for signalized intersections states that if a signalized intersection currently operates at LOS D or LOS E, a significant impact occurs if the critical movements' volume to capacity (v/c) ratio is increased by 1% (0.01) with the addition of project trips. If a signalized

intersection currently operates at LOS F, the addition of a single project trip is considered significant. The County's significance criteria for unsignalized intersections states that a significant impact occurs if any traffic movement has LOS F or if any traffic signal warrant is met. The County's significance criteria for roadway segments states that a significant impact occurs if any roadway segment operating at LOS A through C degrades to a lower LOS of D, E, or F with the addition of project trips. If the segment is already operating at LOS F, the addition of a single trip is considered significant.

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections);
- exceed, either individually or cumulatively, a level of service standard established by the county congestion/management agency for designated roads or highways;
- 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;
- 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 inadequate parking capacity; or
- conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impacts and Mitigation

Increase in Traffic Load

Existing Plus Project Conditions

The project trips were combined with existing condition volumes to develop existing plus project volumes for peak AM and PM conditions.

Intersection Operations

Under existing plus project conditions, all of the study intersections operate acceptably during the AM peak hour. During the PM peak hour, all of the study intersections operate acceptably, except the Highway 1/Carpenter Street intersection, which is expected to continue to operate deficiently at LOS D. The addition of project trips will not result in a noticeable increase in delay at this intersection, which already operates deficiently during the weekday PM peak hour under existing conditions.

All of the study intersections are expected to continue operating acceptably during the Saturday afternoon peak hour under existing plus project conditions, except for the Highway 1/Ocean Avenue intersection, which is expected to continue to operate deficiently at LOS D. The addition of project trips will not result in a noticeable increase in delay at this intersection, which already operates deficiently during the

Saturday afternoon peak hour under existing conditions. As defined by the Monterey County significance criteria, the project does not create a significant impact at either of the intersections that currently operate deficiently because the critical movement volume to capacity (v/c) ratio does not increase at either of the intersections with the addition of project trips. A summary of the existing intersection LOS is provided in **Figure 4.13-2**.

Road Segment Operations

Under existing plus project conditions, all three of the study road segments continue to operate at an acceptable LOS C during the AM peak hour and an unacceptable LOS D during the weekday PM and Saturday afternoon peak hours. Even though the three study road segments currently operate deficiently, the project does not create a significant impact on any of the segments as defined by the Monterey County significance criteria because the addition of project trips does not cause the LOS on any of the segments to degrade. A summary of the existing road segment LOS is provided in **Figure 4.13-3**.

Historic Trip Generation

Although the site has been vacant for nearly three years with little to no traffic generation, the site has historically generated traffic on the surrounding street network. The project site was originally occupied by a hospital, and subsequently occupied by a convalescent hospital, Alzheimer's clinic, and pre-school. Below are the trip generation estimates for each of these uses, as estimated using standard trip generation rates for each use as cited from Trip Generation, 7th Edition, published by the Institute of Transportation Engineers (ITE) in 2003. A summary of the trip generation rates for the historic uses and for the proposed uses is provided in **Figure 4.13-4** and discussed below.

As a 35-bed hospital, it is estimated that the project site generated approximately 413 daily trips, with 40 trips during the weekday AM peak hour (28 in, 12 out) and 46 trips during the weekday PM peak hour (17 in, 29 out). As a 78-bed convalescent hospital, Alzheimer's clinic, and pre-school, it is estimated that the project site generated approximately 306 daily trips, with 34 trips during the AM weekday peak hour (21 in, 13 out) and 39 trips during the PM weekday peak hour (16 in, 23 out).

Project Trip Generation

The TIA evaluated the trip generation that would result from the implementation of the proposed project. The TIA used the ITE trip generation rates for Residential Condominium/Townhouse for the market rate condominiums, affordable housing units, and workforce housing units. Exhibit 10 of **Appendix K** shows a summary of the AM and PM peak hour trip generation characteristics for the proposed project.

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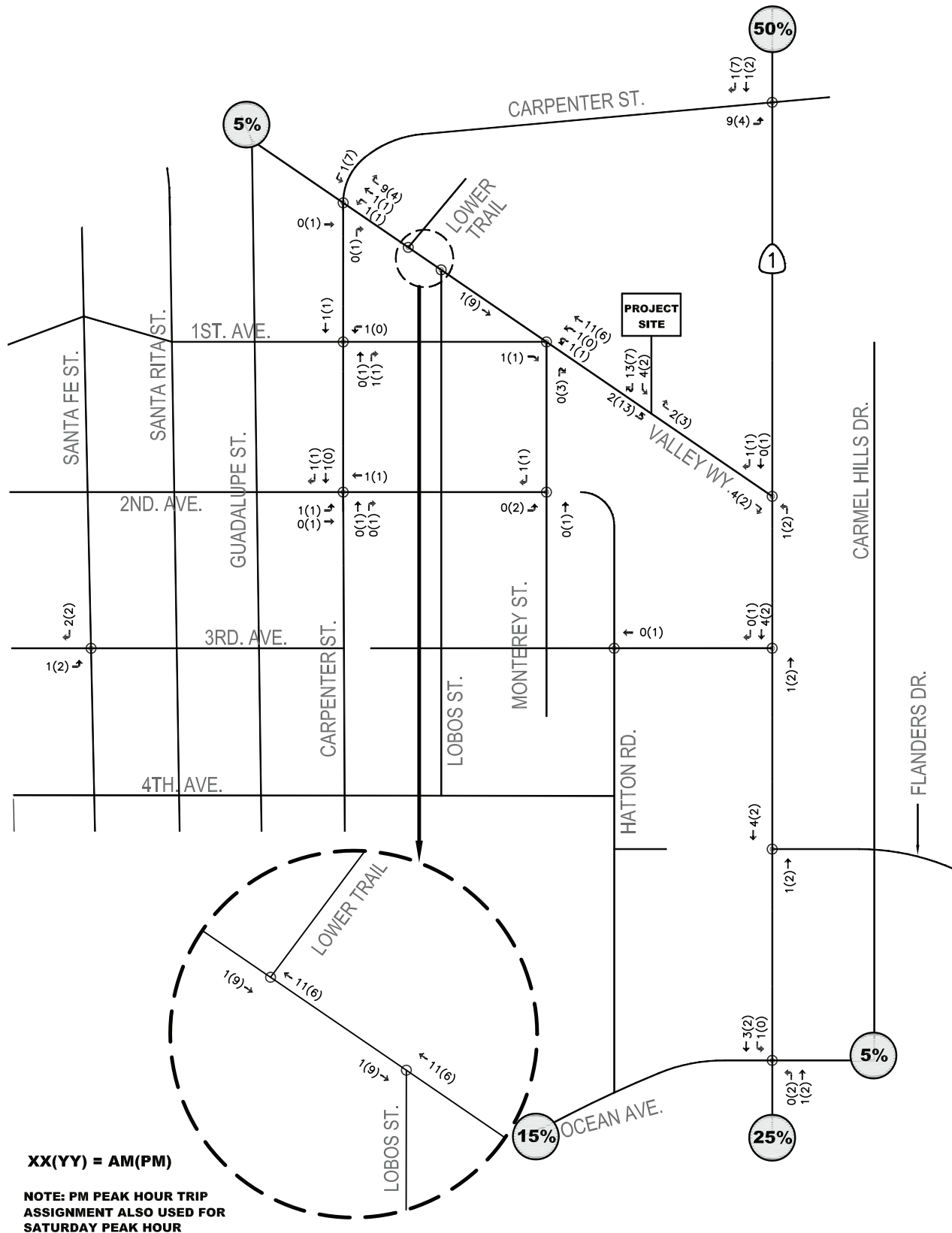
	ITE LAND USE CODE	PROJECT SIZE	DAILY TRIPS	WEEKDAY AM PEAK HOUR					WEEKDAY PM PEAK HOUR				
				TOTAL PEAK HOUR	% OF ADT	IN	/	OUT	TOTAL PEAK HOUR	% OF ADT	IN	/	OUT
<u>TRIP GENERATION RATES</u> ¹													
Residential Condominium/Townhouse (per unit)	230		5.86	0.44	8%	17%	/	83%	0.52	9%	67%	/	33%
Pre-School (Day Care Center) (per student) ²	565		4.48	0.80	18%	53%	/	47%	0.82	18%	47%	/	53%
Hospital (per bed)	610		11.81	1.13	10%	70%	/	30%	1.30	11%	36%	/	64%
Nursing Home (per bed)	620		2.37	0.17	7%	69%	/	31%	0.22	9%	33%	/	67%
Alzheimer's Clinic (Nursing Home) ³	620		2.37	0.17	7%	69%	/	31%	0.22	9%	33%	/	67%
<u>PROPOSED USE</u>													
Market Rate Condominiums	230	33 Units	193	15	8%	3	/	12	18	9%	12	/	6
Affordable Housing Units	230	9 Units	53	4	8%	1	/	3	5	9%	3	/	2
Workforce Housing Units	230	4 Units	23	2	9%	0	/	2	2	9%	1	/	1
TOTAL PROPOSED PROJECT TRIP GENERATION		46 Units	269	21	8%	4	/	17	25	9%	16		9
<u>HISTORIC USES</u>													
Convalescent Hospital	620	78 Beds	185	13	7%	9	/	4	17	9%	6	/	11
Alzheimer's Clinic	620	4 Beds	9	1	11%	1	/	0	1	11%	0	/	1
Pre-School	565	25 Students	112	20	18%	11	/	9	21	19%	10	/	11
Total Historic Trip Generation			306	34	11%	21	/	13	39	13%	16	/	23
NET PROJECT TRIP GENERATION (proposed use minus historic use)			-37	-13	35%	-17	/	4	-14	38%	0		-14
Hospital	610	35 Beds	413	40	10%	28	/	12	46	11%	17	/	29
NET PROJECT TRIP GENERATION (proposed use minus historic use)			-144	-19	13%	-24	/	5	-21	15%	-1		-20

Notes:

1. Trip generation rates published by Institute of Transportation Engineers, "Trip Generation," 7th Edition, 2003, unless otherwise noted.
2. ITE does not have published rates for a pre-school land use. Rates used here are for a day care land use.
3. ITE does not have published rates for a an Alzheimer's clinic. Rates used here are for a nursing home land use.

Historic Site Trip Generation

Figure
4.13-4



Project Trip Distribution and Assignment

Figure
4.13-5

The distribution of trips generated by the project was developed based upon existing traffic patterns and land uses in the vicinity of the project. **Figure 4.13-5** displays the distribution of project trips for the proposed project and the trip assignment for the new project trips. The following distribution was used for the trips:

To/from North (via Highway 1):.....	50%
via Valley Way 20%	
via Carpenter St. 30%	
To/from South (via Highway 1):.....	30%
via east Ocean Ave. 5%	
via Highway 1 south of Ocean Ave. 25%	
To/from the West:.....	20%
via Valley Way west of Carpenter St. 5%	
via Ocean Ave. to Carpenter St. 15%	
TOTAL:	<hr/> 100%

Based on these rates, the project would generate an estimated maximum of 269 total daily trips, with 21 trips during the weekday AM peak hour (4 in, 17 out), and 25 trips during the weekday PM peak hour (16 in, 9 out). *As deficiencies have been identified under existing conditions for these areas, the addition of 269 trips would represents a potentially significant impact that can be reduced to less-than-significant with incorporation of the following mitigation measures as a condition of the project's approval.* Implementation of the following mitigation would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **The proposed project would add an estimated 269 total daily trips to the local street system and Highway 1, which have been identified as deficient in LOS standards. This is a potentially significant impact that can be reduced to a less-than-significant level with the following mitigation measure.**

Mitigation

4.13-1 Prior to recordation of the proposed project's Final Map, the project applicant/developer shall provide evidence of having paid a pro-rata share to the responsible agency of the future costs of the following improvements to the Monterey County Planning Department:

- Widening of the southbound shoulder at the Carpenter Street / Valley Way intersection to allow vehicles to pass other vehicles waiting to turn left onto Carpenter Street.
- Increasing the radius at the northwest triangular 'corner' of the Highway 1/Valley Way intersection by providing a painted island to improve maneuverability for the southbound right turns onto Valley Way.
- Removal and/or trimming of any trees or shrubs remaining on the triangular corner of Highway 1 / Valley Way that interfere with the sight distance from Valley Way to Highway 1.
- Providing an appropriate right-turn lane/flare for the Highway 1 southbound approach to Valley Way for safe deceleration for vehicles turning right from Highway 1 to Valley Way.

Project Access and Circulation

Access to the project site is currently provided via a driveway on Highway 1 and a second driveway on Valley Way. No direct access to Highway 1 from the proposed project site will be provided. A new driveway on Valley Way will provide primary access to and from the project site. This proposed driveway is located southeast of the existing driveway. Emergency access will be provided to the site via a landscaped “driveway” in the approximate location of the existing driveway on Valley Way the width of all internal roadways is 20 feet, which is considered adequate for two-way traffic. **Figure 4.13-6** shows the proposed project site plan.

Sight distance analysis was performed for the existing driveway access to the project site from Highway 1 to determine if the existing sight distance is adequate for both the left and right turn movements out of the driveway given the geometric design of Highway 1 and the prevailing vehicle speeds on Highway 1.

Highway 1 is a four-lane undivided highway in the vicinity of the project. The posted speed limit on Highway 1 is 40 mph and the highway descends at an approximate 2% grade from north to south along the project frontage. The existing driveway is located on the outside of a curve on Highway 1 and is stop-controlled.

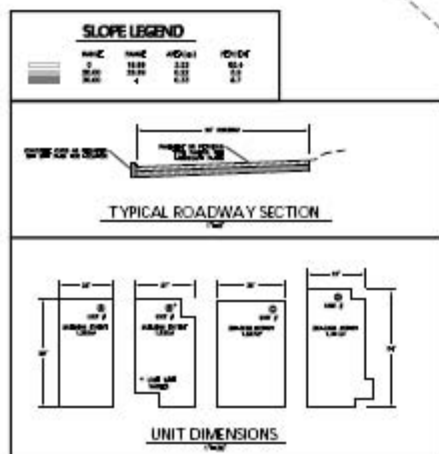
There are existing operational problems associated with the right and left turns entering and exiting the existing driveway. This driveway is currently deficient for use by even one vehicle. As such, additional use of this deficient driveway generated by any additional development (1 single family home, 7 single-family homes, or 46 condominiums) would exacerbate the existing unsafe conditions created by the deficient sight distance at this driveway. The extensive improvements required to allow them would require excessive grading and possible right-of-way acquisition. Even then, less-than-desirable operational problems would remain due to the very high traffic volumes and relatively high speeds on this section of Highway 1. It is expected that the improvements needed to provide the required sight distance from this driveway and to provide necessary channelization on Highway 1 may be completely infeasible due to physical constraints. As the project would result in unsafe conditions for immediate access to Highway 1 and improvements are infeasible, there would be potentially significant impacts related to project access. *This represents a potentially significant impact that can be reduced to less-than-significant with incorporation of the following mitigation measure.* Implementation of the following mitigation would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **The project has the potential to result in unsafe conditions for immediate driveway access to Highway 1. This is a potentially significant impact that can be reduced to a less-than-significant level with the following mitigation measure.**

Mitigation

4.13-2 Prior to issuance of any project-related permits, the applicant/developer shall submit to the Monterey County Planning Department evidence provided by the California Department of Transportation that access to the existing driveway on Highway 1 that serves the project site has been closed to vehicular traffic due to significant sight distance and traffic operational deficiencies.

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Source: Higgins Associates, 2007



Project Site Plan

Figure
4.13-6

Construction Related Traffic

The project would require extensive grading on the site to facilitate construction of proposed uses. Construction related traffic would occur due to the movement of 13,242 cubic yards (CY) of cut/fill, the movement of heavy machinery and supplies, and the removal of construction and demolition materials for disposal. Traffic related to the importation of additional material to the site would also increase. These materials would include base rock, select soil/gravel for trenches and building pads, concrete, and asphalt for paving. Construction related truck traffic of the proposed project would result in approximately 59 truck trips during project grading to remove 5,936 cubic yards of earth materials. Each truck will haul approximately 100 cubic yards of cut from the project site to the Monterey Peninsula Landfill. A proposed routing plan for the delivery of earth materials to be exported from the project site to the landfill is included as **Figure 4-13.7**.

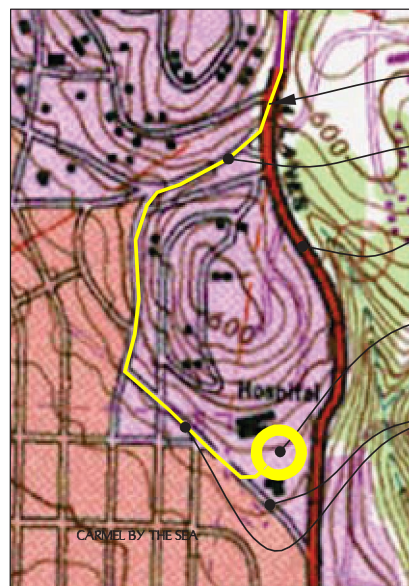
As such, there is potential for traffic-related impacts to occur from construction activities at the site. *Although construction related traffic impacts are temporary in duration, a significant impact could occur without appropriate mitigation in order to reduce impacts to a less-than-significant level.* Implementation of the following mitigation would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **The project would result in increased traffic loads in the project vicinity due to construction related traffic. This would represent a potentially significant impact that can be reduced to a less-than-significant level with implementation of the following mitigation measure.**

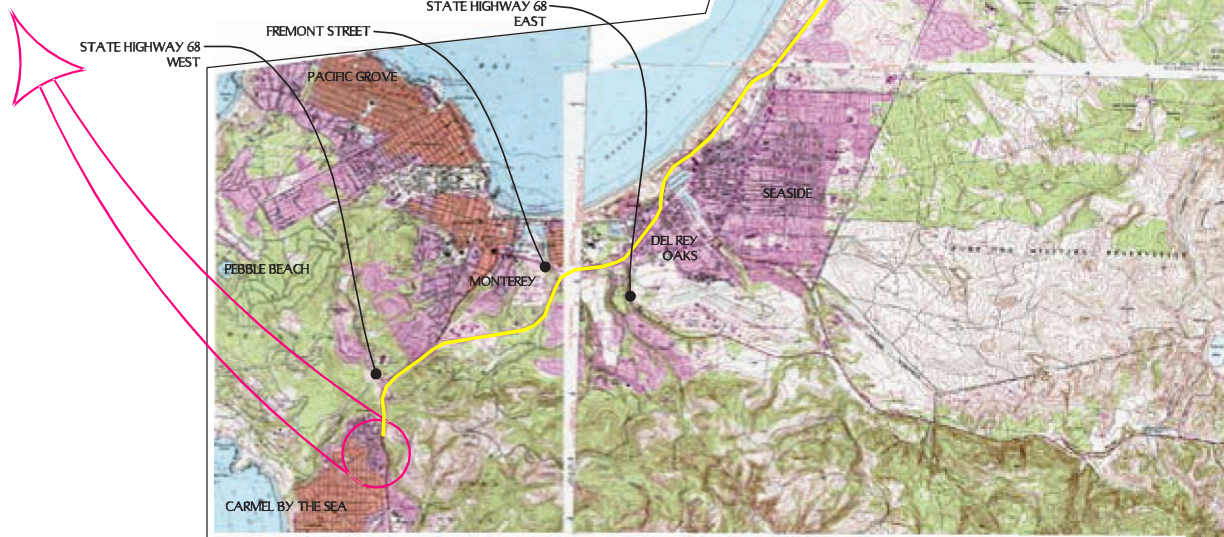
Mitigation

4.13-3 Prior to commencement of construction activities, the contractor will prepare a Construction Management Plan, which will include, but not be limited to, a traffic construction management plan with the following conditions and shall be subject to review and approval by Monterey County Public Works Department and California Department of Transportation prior to issuance of any encroachment permits. The traffic construction management plans shall, at a minimum, include the following measures:

- In order to minimize impacts from construction-related traffic, the project contractor shall ensure that the exportation of earth materials from the project site only occur between the hours of 7:30 AM and 3:30 PM.
- The project contractor shall implement truck haul other routes for construction trucks deemed acceptable by the County, designed to help mitigate traffic congestion during the peak traffic hours. The truck haul routes shall be limited to the roadways and accesses to the project site which will avoid commuter and special event traffic to the maximum extent.
- Additionally, signs shall be posted along roads identifying construction traffic access or flow limitations on one-way road or single lane conditions during periods of truck traffic during the peak hour. Signs shall be placed: (a) at the intersection preceding the traffic access limitation; and (b) not more than 50 feet before such traffic access limitation as necessary during the hauling of materials.
- Construction equipment shall be stored on the project site and construction vehicles shall not be allowed to park in front of residential homes within the residential neighborhood during the construction phase of the project.



B
C4 ROUTING PLAN - DETAIL AT SITE
1"=200'



A
C4 ROUTING PLAN
1"=200'

Source: WWD, 2008



Routing Plan

Figure
4.13-7

- The plan shall be implemented by all relevant contractors at the site and shall be monitored by the Monterey County Planning and Building Inspection Department during demolition and grading activities at the site.

Project Parking Analysis

Monterey County Zoning Ordinance Section 20.58.040 provides requirements for adequate parking for proposed projects. The following calculations identify the project's parking requirements, based on condominium standards.

27 2-bed units @ 2 per unit	54 stalls
19 3-bed units @ 2.2 per unit	42 stalls
<u>1 stall every 4 units</u>	<u>12 stalls</u>
Total required	108 stalls

The project proposes to make the following parking available for the project:

38 2-car garages	76 stalls
Underground parking garage	14 stalls (includes 2-handicapped)
<u>Surface parking</u>	<u>18 stalls (includes 1-handicapped)</u>
Total provided	108 stalls

Based on these calculations, the proposed project provides sufficient parking for residents and guests, as required by the Monterey County Zoning Ordinance. ***As such, no impacts related to parking availability would result from project implementation.***

Indirect Traffic Impacts

The TIA also conducted an analysis of the indirect traffic related impacts. Several studies have been made regarding the indirect impacts of traffic on the residential neighborhoods. The variables affecting these impacts include traffic volumes, type, or makeup, of traffic (i.e. passenger cars, trucks, motorcycles, emergency vehicles, etc.), traffic speed, perception of through traffic as a percentage of total traffic, adequacy of street alignment (i.e. horizontal and vertical curvature), accident experience, on-street parking, residential dwelling set backs from the street, pedestrian traffic, and street pavement conditions (which would add to traffic noise as the pavement deteriorates). Other factors that may be a contributor to neighborhood nuisance levels include socio-economic status of the neighborhood, and expectations of the residents regarding traffic volumes; however, these are beyond the purview of CEQA and are provided here for informational purposes only.

General guidelines regarding threshold volumes pertaining to local streets have been recommended within several studies. There is variation in these threshold volumes, but in general, it is recommended that residential streets carry no more than 2,000 to 4,000 ADT (Average Daily Traffic). Furthermore, streets with less than 2,000 ADT are considered "light" streets.

The Traffic Infusion on Residential Environment (TIRE) index is a measure of the impact of traffic on residents along a street. The TIRE index scale ranges from 0 to 5 depending on daily traffic volume. An index of 0 represents the least infusion of traffic and 5 the greatest, and thereby, the poorest residential environment. Typical street types associated with the various index levels are shown on the TIRE index chart.

TIRE INDEX CHART

TIRE Index	Daily Traffic Volume	Residential Environment Typical of:
0	1	A cul-de-sac street with one home.
1	10	A cul-de-sac street with 2 to 15 homes.
2	100	A 2-lane minor street.
3	1,000	A 2-lane collector or arterial street.
4	10,000	A 2 to 6-lane arterial street.
5	100,000	

The TIRE index is based on the theory that a given increase in traffic volume has a greater impact on residential environment along a residential street with a low traffic volume than along a street with a high pre-existing volume. TIRE effects are separate from noise and air pollution impacts. TIRE represents the effect of traffic on the safety and comfort of human activities, such as walking, cycling, and playing on or near a street and on the freedom to maneuver vehicles in and out of residential driveways.

The TIRE Index Table gives values associated with various daily traffic volume ranges. A street with a TIRE value of three or greater is considered to function primarily as a traffic street and exhibit significantly impaired residential environment. The projected difference between a pre and post project TIRE value in the predicted impact of the project on residential environment. Any projected change of 0.1 or greater would be noticeable to residents.

Valley Way

The neighborhood quality of life under existing, existing plus project, cumulative, and cumulative plus project conditions using the TIRE index was analyzed for the following three street segments:

1. Valley Way between Highway 1 and the Project Driveway
2. Valley Way between the Project Driveway and Carpenter Street
3. Valley Way between West of Carpenter Street

The ADT volumes were estimated based on the PM peak hour volumes, assuming that the PM peak hour volumes account for 10% of the daily traffic volume. Under existing plus project conditions, the TIRE index for all three study segments remain unchanged from that under existing conditions. Therefore, using the TIRE index method of analysis, the addition of project traffic along Valley Way under existing plus project conditions, would not be noticeable to the residents. Additionally, the number of new trips per 24 hour period would not be noticeable to the residents.

Under cumulative conditions, no additional traffic is routed along Valley Way. The ADT's and TIRE index for all study segments would remain unchanged and the addition of project traffic along Valley Way under cumulative plus project conditions would not be noticeable to the residents, nor would the number of new trips per 24 hour period, estimated to be 1 trip, be noticeable. ***Therefore, indirect traffic impacts would be considered less-than-significant.***

Cumulative Impacts

The following discussion describes the potential, traffic related impacts on a cumulative level that may result from the implementation and operation of the proposed project. The TIA prepared by Higgins Associates and peer-reviewed by the traffic engineers for the Draft EIR analyzed cumulative traffic conditions without the proposed project and the cumulative conditions with the proposed project. The geographic scope for this analysis is the project site's local vicinity and the Carmel Land Use Planning Area as designated by the Monterey County General Plan.

Cumulative without Project Traffic Conditions

Intersection Operations

Under cumulative conditions, all of the study intersections are expected to operate acceptably during the weekday AM peak hour. During the weekday PM peak hour, the Highway 1/Carpenter Street intersection is expected to operate at a deficient overall LOS E, which is a decline from the existing LOS D. The Highway 1/Ocean Avenue intersection is expected to continue operating deficiently at an overall LOS D during the weekday PM peak hour under cumulative conditions. The Highway 1/Carpenter Street intersection is expected to operate at an overall LOS E during the Saturday afternoon peak hour under cumulative conditions, which is a decline from the existing LOS C. The Highway 1/Ocean Avenue intersection is expected to continue operating at LOS D during the Saturday afternoon peak hour under cumulative conditions. A summary of the existing intersection LOS is provided in **Figure 4.13-2**.

Road Segment Operation

Under cumulative conditions, all three of the study road segments are expected to continue operating at an acceptable LOS C during the AM peak hour and an unacceptable LOS D during the weekday PM and Saturday afternoon peak hours. A summary of the existing road segment LOS is provided in **Figure 4.13-3**.

Trip Distribution, Generation, and Assignment

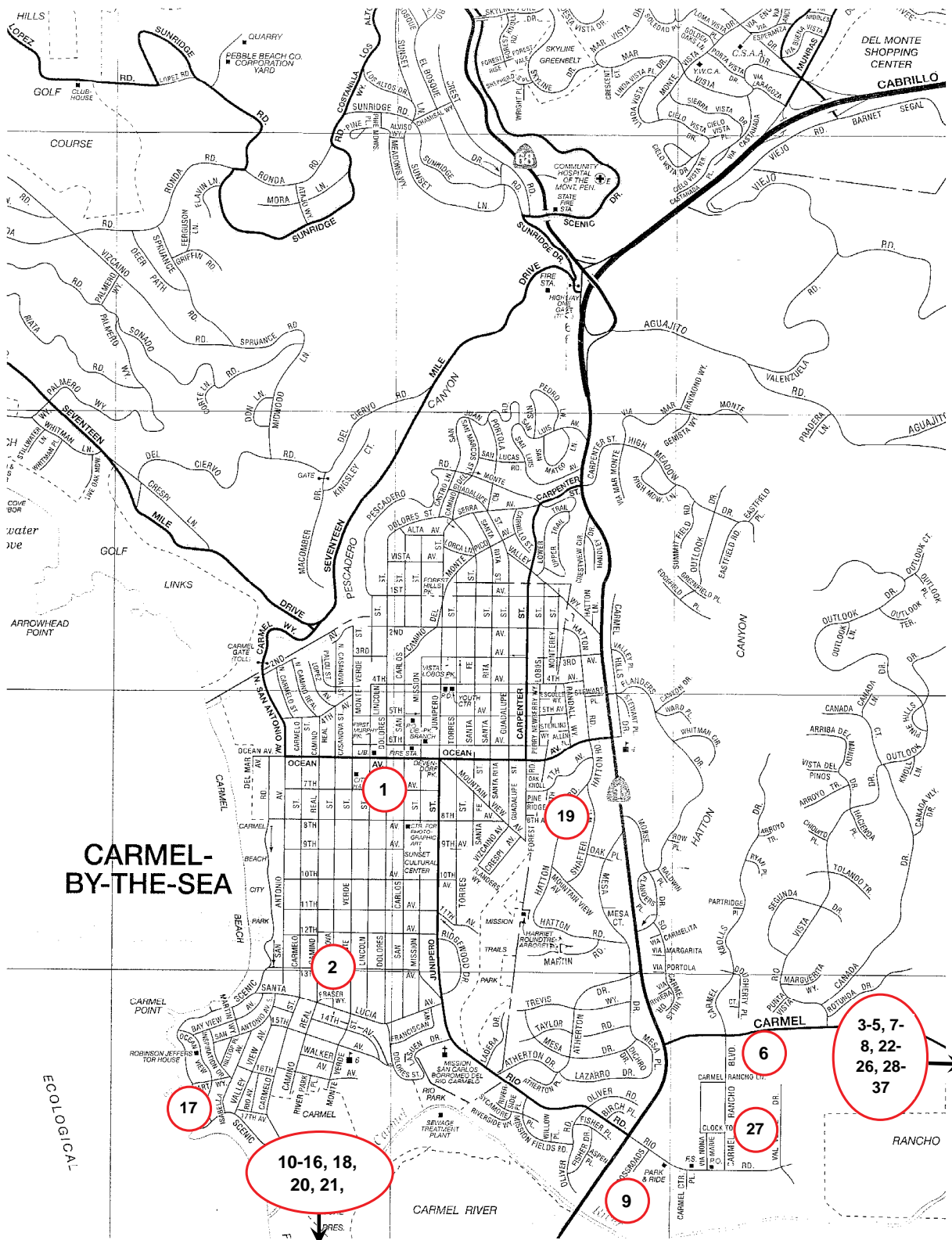
Figure 4.13-8 shows the location of the known pending and approved development projects that may contribute traffic to the studied intersections and roadways. The projects are listed on **Figure 4.13-9** with their traffic generation.

The cumulative projects would generate 13,162 daily trips, with 877 trips during the AM peak hour (266 in, 611 out) and 1,193 trips during the PM peak hour (730 in, 462 out). The peak hour trips generated by the cumulative projects were assigned to the road network based upon existing network patterns, the location of complementary land uses, and previous analyses of the projects. It was assumed that 50% of all the cumulative trips would travel to/from Highway 1 north of Carpenter Street. These cumulative trips were added to the existing condition traffic volumes to determine cumulative condition traffic volumes, as shown on **Figure 4.13-10A – 4.13-10C**.

Cumulative Plus Project Conditions

This section describes traffic conditions with cumulative projects developed and full buildout of the study project. Cumulative plus project condition traffic volumes were developed by adding the project trip assignment to the cumulative condition volumes.

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Source: Higgins Associates, 2008



Cumulative Projects

Figure
4.13-8

	ITE LAND USE CODE	PROJECT SIZE	WEEKDAY DAILY TRIPS	AM PEAK HOUR				PM PEAK HOUR			
				TOTAL PEAK HOUR	% OF ADT	IN	OUT	TOTAL PEAK HOUR	% OF ADT	IN	OUT
TRIP GENERATION RATES ¹											
Single Family Detached Housing (per unit)	210		9.57	0.75	8%	0.25	0.75	1.01	11%	0.64	0.36
Apartment (per unit)	220		6.63	0.51	8%	0.16	0.84	0.62	9%	0.67	0.33
Residential Condominium/Townhouse (per unit)	230		5.86	0.44	8%	0.17	0.83	0.52	9%	0.67	0.33
Specialty Retail (per 1,000 SQ. FT)	(814)		40.00	1.20	3%	0.60	0.40	3.60	9%	0.50	0.50
Resort Hotel (per occupied room) ²	330		8.00	0.37	5%	0.72	0.28	0.49	6%	0.43	0.57
Motel	320		5.63	0.45	8%	0.37	0.63	0.47	8%	0.54	0.46
TRIPS											
City of Carmel-by-the-Sea:											
APPROVED											
1. Mixed Use SE corner Dolores & 7th											
Condominiums/Apartments		8 Units	53	4	8%	1	3	5	9%	3	2
Commercial Retail		3,000 SQ. FT.	120	4	3%	2	2	11	9%	6	5
PROPOSED											
2. Carmel Sands Lodge Redevelopment ³		16 Rooms	128	6	5%	2	4	8	6%	4	4
County of Monterey:											
APPROVED											
3. Quail Meadows ⁴		mixed use	463	14	3%	10	4	30	6%	16	14
4. Canada Woods ⁵											
Single Family Units		44 Units	421	33	8%	8	25	44	10%	28	16
Home Improvement Center		18,000 SQ. FT.	631	27	4%	14	13	52	8%	24	27
5. Rancho San Carlos (Santa Lucia Preserve)		338 Units	3,235	254	8%	64	190	341	11%	218	123
6. Sunrise Assisted Living ⁶		64 Units	112	0	0%	0	0	0	0%	0	0
7. September Ranch ⁷		110 Units	1,053	83	8%	21	62	111	11%	71	40
8. Rancho San Carlos - Potrero Creek Area		29 Units	278	22	8%	6	16	29	10%	19	10
9. Crossroads Shopping Center Expansion ⁸		20,260 SQ. FT.	2,070	80	4%	48	32	101	5%	45	56
10. 195 Spindrift Road		1 Unit	10	1	10%	0	1	1	10%	1	0
PROPOSED											
11. Regan Bed & Breakfast		10 Rooms	56	5	9%	2	3	5	9%	3	2
12. 2973 Cuesta Way		1 Unit	10	1	10%	0	1	1	10%	1	0
13. 176 Spindrift Drive		1 Unit	10	1	10%	0	1	1	10%	1	0
14. 300 Corona Road		1 Unit	10	1	10%	0	1	1	10%	1	0
15. 74 Corona Road		1 Unit	10	1	10%	0	1	1	10%	1	0
16. 340 Corona Road		1 Unit	10	1	10%	0	1	1	10%	1	0
17. 26327 Scenic Road		1 Unit	10	1	10%	0	1	1	10%	1	0
18. New SFD West of Hwy 1 btwn. Hwy 1 & Spindrift		1 Unit	10	1	10%	0	1	1	10%	1	0
19. 25498 Hatton Road		1 Unit	10	1	10%	0	1	1	10%	1	0
20. 30780 San Remo Drive		1 Unit	10	1	10%	0	1	1	10%	1	0
21. 244 San Remo Drive		1 Unit	10	1	10%	0	1	1	10%	1	0
22. 12 Rancho San Carlos Road		3 Units	29	2	7%	1	1	3	10%	2	1
23. 15 Oak Meadow Lane		1 Unit	10	1	10%	0	1	1	10%	1	0
24. Rosie's Cracker Barrel ⁹		3,821 SQ. FT.	153	5	3%	3	2	14	9%	7	7
25. 701 Country Club Drive		1 Unit	10	1	10%	0	1	1	10%	1	0
26. 3 Valley Hills Lane		1 Unit	10	1	10%	0	1	1	10%	1	0
27. Val Verde Affordable Housing		89 Units	590	45	8%	7	38	55	9%	37	18
28. 16 Vista Ladera		1 Unit	10	1	10%	0	1	1	10%	1	0
29. 32829 Carmel Valley Road Micro Winery ¹⁰		-	10	1	10%	0	1	1	10%	1	0
30. 350 Via Los Tulares		1 Unit	10	1	10%	0	1	1	10%	1	0
31. 14345 Hitchcock Canyon Road		1 Unit	10	1	10%	0	1	1	10%	1	0
32. Holman Ranch Winery ¹¹		1,200 SQ. FT.	4	0	0%	0	0	0	0%	0	0
33. Carmel Valley Village Park and Commons ¹²		39 Units	374	37	10%	9	28	46	12%	29	17
34. Rancho Canada ¹³		281 Units	2,689	211	8%	53	158	284	11%	182	102
35. Carmel Valley Ranch ¹⁴		12 Units	115	9	8%	2	7	12	10%	8	4
36. Robles Del Rio Lodge ¹⁵		35 Units	280	13	5%	9	4	17	6%	7	10
37. Bernardus Lodge Expansion ¹⁶		16 Rooms	128	5	4%	4	1	7	5%	3	4
TOTAL											
TOTAL CITY OF CARMEL-BY-THE-SEA TRIPS			301	14	5%	5	9	24	8%	13	11
TOTAL COUNTY OF MONTEREY TRIPS			12,861	863	7%	261	602	1,169	9%	717	451
TOTAL CUMULATIVE TRIPS			13,162	877	7%	266	611	1,193	9%	730	462

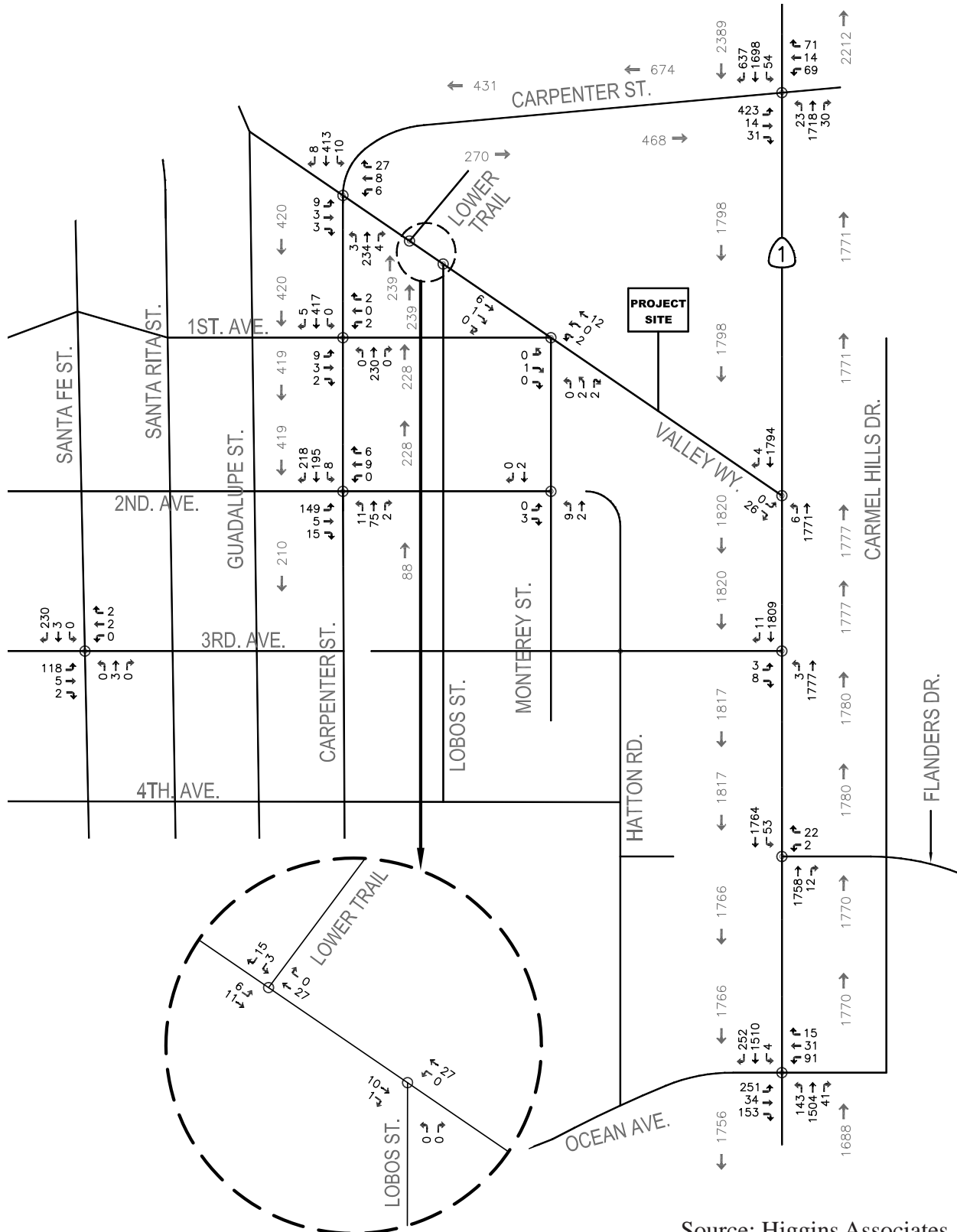
Notes:

1. Trip generation rates published by Institute of Transportation Engineers, "Trip Generation," 6th Edition, 1997 & 7th Edition, 2003, unless otherwise noted.
2. ITE does not have published rates for weekday daily trips for the Resort Hotel use. Rates used here were taken from the San Diego Association of Governments, *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002.
3. Trip generation for the Carmel Sands Lodge Redevelopment Project is based on the additional 16 rooms at the resort as a result of the redevelopment.
4. Quail Meadows trip generation from *Quail Meadow Study*, Higgins Associates, 2001.
5. Canada Woods trip generation information obtained from *Canada Woods Traffic Analysis Report*, Higgins Associates, July 1992.
6. Sunrise Assisted Living trip generation is based on *Sunrise Assisted Living Project Traffic and Parking Evaluation*, Higgins Associates, December 2000.
7. The September Ranch project was approved at only 94 units. The number of units shown here is the number of units included in the *Traffic Impact Study for the September Ranch Subdivision*, TJKM Transportation Consultants, October 2004.
8. Crossroads Shopping Center Expansion trip generation obtained from *Carmel River Inn Master Plan Traffic Impact Report*, Higgins Associates, May 2004.
9. No specific information regarding the rehabilitation of Rosie's Cracker Barrel was available. Trip generation rates for the Specialty Retail land use were used to estimate the project trip generation based upon the building square footage.
10. 32829 Carmel Valley Road Micro Winery trip generation obtained from "Monterey County Planning Commission Findings & Decision" dated January 10, 2001.
11. Holman Ranch Winery trip generation obtained from Monterey County Planning Commission minutes from meeting on July 30, 2003.
12. Carmel Valley Village Park and Commons trip generation obtained from *Carmel Valley Village Park and Commons Traffic Impact Analysis*, Higgins Associates, November 20, 2006.
13. Rancho Canada trip generation obtained from *Rancho Canada Residential Development Draft Traffic Study*, Hexagon Transportation Consultants, Inc., April 7, 2004.
14. Carmel Valley Ranch trip generation obtained from *Carmel River Inn Master Plan Traffic Impact Report*, Higgins Associates, May 2004.
15. Robles Del Rio Lodge trip generation obtained from *Robles Del Rio Lodge Draft Traffic Impact Report*, Higgins Associates, May 2008.
16. Bernardus Lodge Expansion trip generation obtained from *Bernardus Lodge Expansion Traffic Impact Analysis*, Higgins Associates, March 13, 2003.

Source: Higgins Associates, 2008

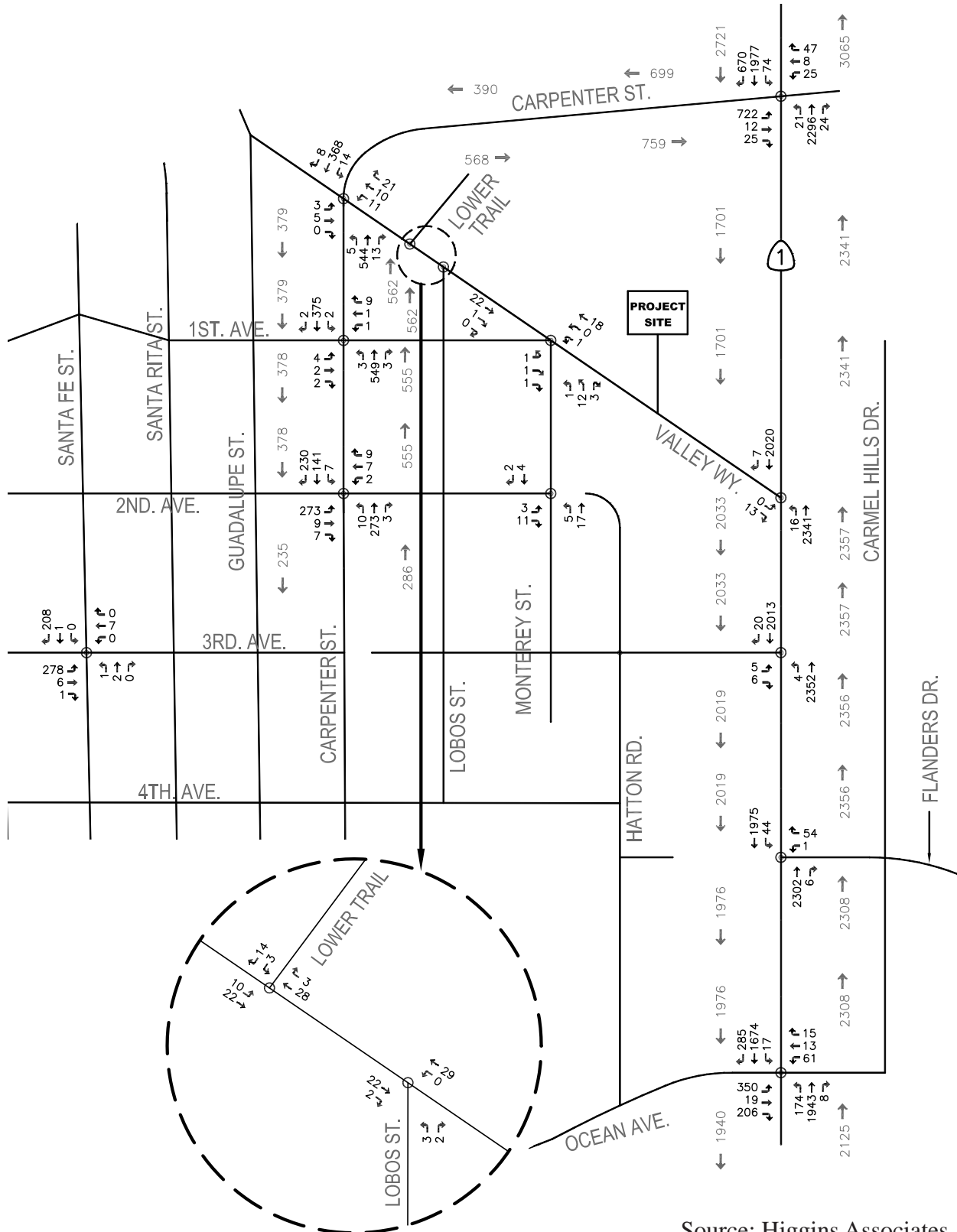
Cumulative Trip Generation

Figure
4.13-9



Cumulative Conditions

Figure
4.13-10A

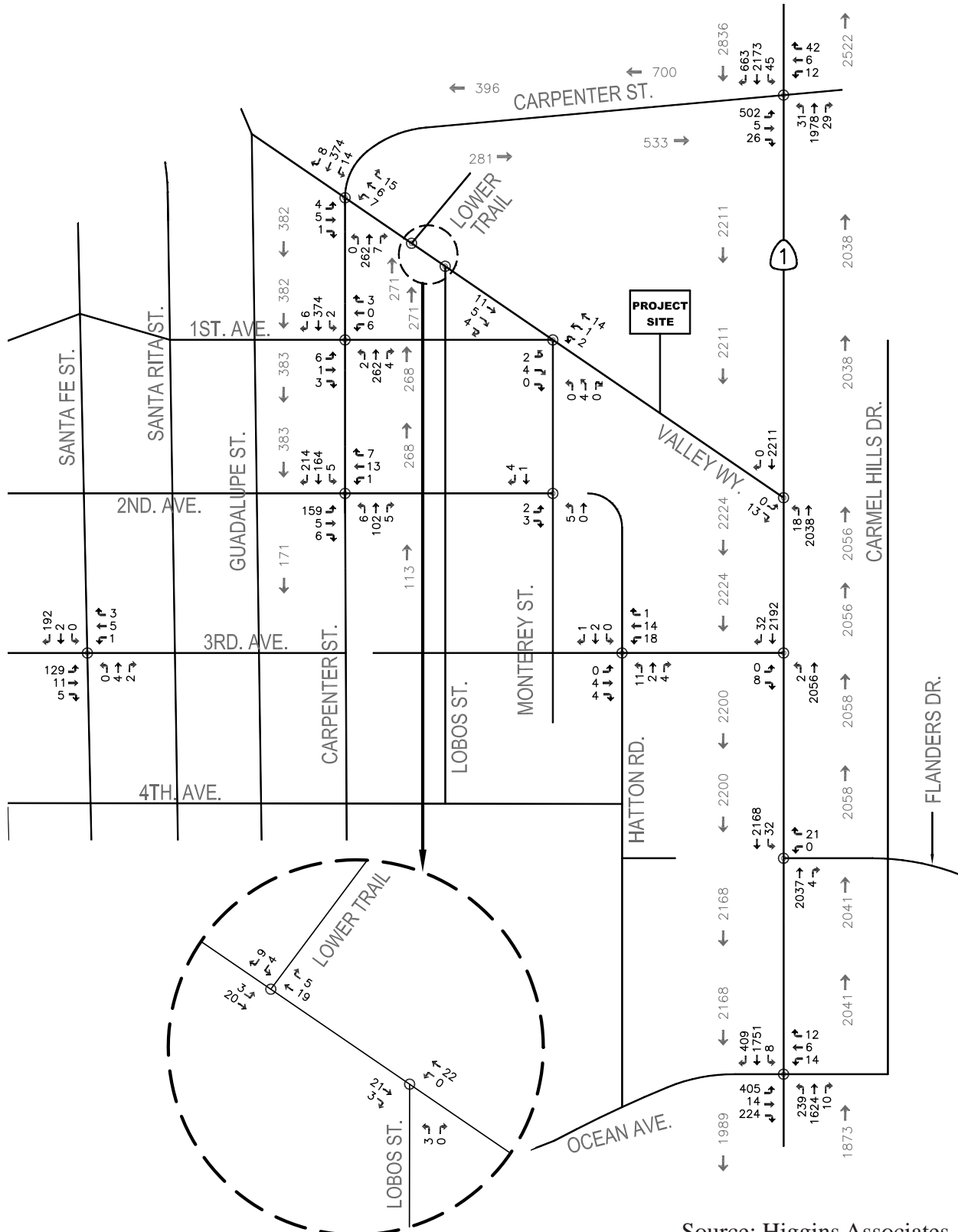


Source: Higgins Associates, 2007



Cumulative Conditions

Figure
4.13-10B



Source: Higgins Associates, 2007



Cumulative Conditions

Figure
4.13-10C

Intersection Operations

The Highway 1/Carpenter Street intersection is expected to degrade from LOS D under cumulative conditions to LOS E under cumulative plus project conditions, during the weekday AM peak hour. This represents a significant project impact. The Highway 1/Carpenter Street intersection is expected to continue operating deficiently with an overall LOS E during the weekday PM and Saturday afternoon peak hours. The Highway 1/Ocean Avenue intersection is expected to continue operating deficiently at an overall LOS D during the weekday PM peak hour and an overall LOS E during the Saturday afternoon peak hour. The remaining study intersections are expected to continue operating acceptably under cumulative plus project conditions. A summary of the existing LOS is provided in **Figure 4.13-2**.

Road Segment Operations

Under cumulative plus project conditions, the study road segments of Highway 1 between Carpenter Street and Valley Way, and Highway 1 between Flanders Drive and Ocean Avenue will continue to operate at an acceptable LOS C during the AM peak hour. The study road segment of Highway 1 between Flanders Drive and Ocean Avenue will degrade from an acceptable LOS C to an unacceptable LOS D. This represents significant project impact. All of the three study road segments will continue to operate at an unacceptable LOS D during the weekday PM and Saturday afternoon peak hours. A summary of the existing LOS is provided in **Figure 4.13-3**.

As the project would cause the LOS to degrade to an unacceptable level, this represents a potentially significant project impact. As a policy, Monterey County and TAMC charge the TAMC fee to individual projects in order to fully mitigate the cumulative impacts to the regional highway system, based upon their incremental contribution to the total trips generated by all cumulative projects. As such, cumulative traffic impacts can be reduced to a less-than-significant level with the implementation of TAMC Regional Development Fee payment. Implementation of the following mitigation would not result in any new environmental impact beyond those identified in this Draft EIR.

Impact **All of the study intersections and road segments would contribute an increase to the total trips generated by all cumulative projects, resulting in unacceptable LOS ratings for one study intersection and one road segment under cumulative plus project conditions. *These are significant impacts that can be reduced to a less-than-significant impacts with the following mitigation measure.***

Mitigation

4.13-4 The project applicant/developer shall pay the Transportation Agency of Monterey County (TAMC) Regional Development Fee in order to mitigate the proposed project's incremental contribution to cumulative impacts to the regional highway system. Evidence of payment shall be submitted to the Monterey County Planning Department Prior to the issuance of any building permits.

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4.14 UTILITIES AND SERVICE SYSTEMS

Introduction

This section evaluates the impacts of the proposed project on: water supply and distribution facilities; wastewater collection, treatment, and disposal facilities; solid waste collection; and, natural gas/electricity supply and infrastructure. Impacts related to water quality and stormwater/drainage infrastructure are addressed in **Section 4.8 Hydrology and Water Quality**.

The proposed project would be considered infill development on a property that is currently serviced by utilities in an area with existing public utility infrastructure. In order to obtain information from public utility providers, DD&A contacted the applicable water, wastewater, solid waste collection, and natural gas/electricity utility operators, which are: California-American Water (Cal-Am); Carmel Area Wastewater District (CAWD); Waste Management Inc.; and, Pacific Gas and Electric Company (PG&E), respectively. Information received from public providers is used to evaluate existing capacity, projected capacity, and existing and projected future use of that capacity. DD&A also contacted relevant regulatory agencies, including the Monterey Peninsula Water Management District (MPWMD) and Monterey County Water Resources Agency, in order to allow these bodies to provide comments on the proposed project.

Setting

Water

The project site is within the MPWMD, which is responsible for issuing water connection permits for development within their boundaries, and managing and regulating the use, reuse, reclamation, and conservation of water within its boundaries on the Monterey Peninsula. About 80% of the water collected, stored, and distributed within the MPWMD boundaries is managed by the California-American Water Company (Cal-Am), which serves approximately 95% of Monterey Peninsula residents and businesses including the project site. Cal-Am is a privately owned and operated water company with a system capacity regulated by the MPWMD. Water supplied by Cal-Am is obtained from wells in the Carmel Valley and Seaside aquifers, and from the Los Padres and San Clemente Reservoirs located on the Carmel River. While Cal-Am serves as the applicable water purveyor, MPWMD and the Monterey County Water Resources Agency are responsible for regulating Cal-Am activities.

Regionally, water supplies are under close examination. Regulations set forth by the State Water Resources Control Board (SWRCB) and the MPWMD limit the amount of water that Cal-Am can draw from the Carmel River Basin and/or Seaside Basin to serve Cal-Am's Monterey Peninsula area customers. On July 6, 1995, the SWRCB ruled that Cal-Am was diverting up to 10,730 acre-feet per year (AFY) of Carmel River water without legal right (SWRCB Decision 95-10). Cal-Am and MPWMD have pursued a number of projects to secure additional water supplies and water rights. A water supply contingency plan was determined to be necessary to address Decision 95-10 and provide a reliable water supply for the MPWMD service area. The California Public Utility Commission's effort to identify alternate supplies became known as "Plan B." Plan B is intended to provide 10,730 AFY of legal water supply to Cal-Am's Monterey Division service area. The State has further mandated a 20% reduction in water use from the Carmel River, with possible future reductions up to 76% below current consumption. To achieve this, MPWMD and Cal-Am have instituted a water conservation and rationing plan. Cal-Am has also been working on planning and designing the "Coastal Water Project" to provide the required water supply to Cal-Am's Monterey Division service area. The Coastal Water Project is currently in the environmental review phase, and would supply 12,500 acre-feet of water per year (AFY) for urban users within its service area, as well as for injection into the Seaside Groundwater Basin. The proposed project

includes the construction and operation of a seawater desalination plant including intake and discharge facilities, water transmission pipelines, storage reservoirs, pump stations, and aquifer storage and recovery facilities. The Draft EIR for the Coastal Water Project is currently available for public review and comment.

As stated, though Cal-Am is the water service purveyor to the project site and its surrounding area and owns and maintains the water system infrastructure in its service area, MPWMD and Monterey County Water Resources Agency serve as regulatory bodies for Cal-Am's operations in Monterey County. The MPWMD assigns a water allocation for each jurisdiction. All properties that modify or add water fixtures on a property within the MPWMD must obtain written authorization from the District prior to taking action. The County has negligible AFY of water to allocate to new uses in the area within their MPWMD allocation, but the applicants do have the opportunity to use water use credits for the existing buildings and former use on the site, in accordance with the regulations of the MPWMD. Applicable rules and regulations under the MPWMD are explained further below, under Regulatory Authority. In addition to the MPWMD, the project lies within an area of Cal-Am that is subject to Monterey County Ordinance 3310. Under this Ordinance, (Regulations to Control Intensification of Water Consumption in the California-American Water Company Service Area), projects must comply with uniform regulations to control intensification of water consumption (See below; Monterey County Ordinance 3310, 1988). MPWMD and Monterey County would therefore approve any proposed development and use of water credits proposed by the proposed project before final project approval. Existing water system infrastructure on the project site is connected to a Cal-Am water main located within Valley Way.

Wastewater

The Carmel Area Wastewater District (CAWD) provides wastewater collection, treatment and disposal services to the areas of Carmel-by-the-Sea, Carmel Valley, and Carmel Highlands, including the project site. CAWD is also responsible for the maintenance and operation of the sewer system within its wastewater management district borders. Existing sewer trunk lines are connected to the project site. As proposed, residential buildout of the project site would require installation of additional sewer lines within the private drive proposed on Via Carmelo (See **Figure 4.1-1 Utility Plan**).

Wastewater is carried by the CAWD collection system to CAWD pump stations. The wastewater is subsequently conveyed from these pump facilities to the CAWD wastewater treatment facility located approximately 1.6 miles south of the project site on Highway 1.

The CAWD wastewater treatment facility has a permitted average dry weather treatment capacity of 3 million gallons per day (MGD) and is currently operating at 1.8 MGD (email correspondence, Sanford Veile, August 6, 2008), thus a remaining 1.2 MGD (3 million gallons per day – 1.8 million gallons per day = 1.2 million gallons per day) remains as capacity. The CAWD wastewater treatment facility is a tertiary plant that provides reclaimed water for landscape irrigation to the Pebble Beach area during the dry season and at times when irrigation demand is low during the wet season. Treated effluent is discharged into the Pacific Ocean via an existing permitted outfall. The plant has 1.2 MGD of capacity available to meet future demands, and expansion of the treatment plant is not anticipated in the near future.

The project site has existing access to the CAWD sewer system. The nearest pump station and force main to the project site are located approximately one mile from the project site near the intersection of 8th Street and Scenic Avenue. Existing wastewater system infrastructure on the project site maintains a connection with a 6-inch sewer pipeline located within Valley Way.



Source: WWD, 2008



Utility Plan

Figure
4.14-1

Solid Waste

Solid waste collection and disposal services in the City of Carmel-by-the-Sea area, including the project site, are provided by Waste Management, Inc., on an operational agreement with the Monterey Regional Waste Management District (MRWMD). Waste is transported to the Monterey Peninsula Landfill and Recycling Facility in the City of Marina, which is operated by the MRWMD. This facility serves the solid waste and recycling needs of an estimated 170,000 residents. The facility accepts basic solid waste, liquid waste and sewage sludge (biosolids), wood waste, yard waste, concrete, brick, rock, asphalt, tires, appliances, furniture, plastics, and boats, and a variety of other materials. In addition to typical waste management, the MRWMD also operates a Materials Recovery Facility (MRF), which targets materials brought in from self-haul loads and commercial wastes, construction and demolition debris, wood waste, and yard waste. The facility also has off-site local recycling centers that collect household recyclables (glass, aluminum, paper, and plastics).

According to MRWMD's 2004 Landfill Site Master Plan, the remaining landfill site waste capacity is approximately 40 million tons or 74 million cubic yards. The remaining site life assumes a maximum site elevation of 284 feet (above sea level), the use of alternative daily cover (ADC), a waste-to-soil ratio of 10:1, and an in-place waste density of 1,080 pounds per cubic yard. Assuming MRWMD continues to achieve the State-mandated 50% recycling goal, the landfill will continue to serve the present service area through the year 2107. If needed, the use of tarps for landfill cover and the export of surplus fill sand could help to increase the permitted capacity of the landfill. The MRWMD Landfill and Recycling Facility received approximately 370,000 tons of solid waste throughout the 2004-2005 fiscal years. Of this amount, approximately 140,000 tons (39% of the year's solid waste) were recycled from the landfill. Solid waste removal service is not currently provided for the project site, although the project site's surrounding neighborhood receives solid waste removal service.

Electricity and Natural Gas

PG&E provides gas and electric service to the project site. Natural gas is measured in British thermal units (Btu), the quantity of heat necessary to raise the temperature of one pound of water one degree Fahrenheit. Electricity is measured in kilowatt hours (kWh). A kilowatt (kW) is a measure of power produced through sources of generation at 3,413 Btu/kW-hour. Most electricity is produced by consuming other primary energy sources and converting them into electricity. PG&E operates a grid distribution system that transmits electricity with a vast network of transmission and distribution lines throughout the service area to the users. Most of the electricity that PG&E distributes throughout Monterey County is obtained from the Moss Landing Power Plant. The Moss Landing Plant generates over 1,500 megawatts. The project site is currently served by PG&E's gas and electric under their current distribution and transmission systems.

Regulatory Environment

The following identifies applicable policies from the Monterey County General Plan and Carmel Area Land Use Plan. Evaluation for project consistency with applicable Monterey County General Plan and Carmel Area Land Use Plan policies is provided in **Table 4.9-1** within **Section 4.9 Land Use and Planning**.

Monterey County General Plan. The Monterey County General Plan provides policies for protection of access to public utilities. The following policies are applicable to the project site and its access to public utilities:

Policy 6.1.1 Increased uses of groundwater shall be carefully managed, especially in areas known to have ground water overdrafting.

Policy 6.1.2 Water conservation measures for all types of land uses shall be encouraged.

Policy 53.1.4 New development shall be required to connect to existing water service providers which are public utilities, where feasible.

Carmel Area Land Use Plan / Local Coastal Program. The Carmel Area Land Use Plan provides policies for protection of access to public utilities. The following policies are applicable to the project site and its access to public utilities:

Policy 2.4.4.A.1 New development shall be approved only where it can be demonstrated by the applicant that adequate water is available from a water utility or community system or an acceptable surface water diversion, spring, or well. At the County's discretion, applicants may be required to submit a hydrologic report certifying sustained yield of the water source to serve new development outside of existing water utility service areas.

Policy 2.4.4.A.2 As part of the permit process, the applicant must also demonstrate that the proposed new water use or use intensification will not adversely affect both the natural supply necessary to maintain the environment, including wildlife, fish, and plant communities, and the supply available to meet the minimum needs of existing users during the driest year. At the County's discretion, the applicant may be required to support his application through certification by a consultant deemed qualified by the County to make such determinations. The County will request that the Department of Fish and Game provide a written recommendation on each application.

Policy 2.4.4.A.5 Any diversion of surface sources of water shall be required to submit an approved water appropriation permit from the State Water Resources Control Board prior to approval of any coastal development permit except where such water appropriation permit is not required by applicable State law.

Policy 2.4.4.A.6 Water conservation devices shall be required in conjunction with new development. Drought tolerant landscaping should be required where appropriate. Construction of roads and driveways with pervious surfaces shall be encouraged where appropriate.

Policy 3.2.3.1 The County shall reserve adequate water supply from its fair share allotment of Cal-Am water as approved by the Monterey Peninsula Water Management District to supply expansion of existing and development of new visitor-serving facilities permitted by the plan. Water must be first assured for coastal-priority visitor-serving facilities before allowing any new residential development other than infilling of existing vacant lots. In addition, 0.056 acre-feet/year of water is reserved for each visitor-serving unit permissible under this Plan.

Policy 3.2.3.2 The County should reserve from its allotment an additional supply through 1988 to serve residential development of existing vacant lots affected by the water connection moratorium of 1975-78.

Policy 3.2.3.3 The County should require new development in the Cal-Am service area to employ water conservation techniques to the greatest possible extent. This would include, among other things, use of water-saving fixtures, retention of native vegetation, and use of drought-tolerant landscaping.

Monterey County Municipal Code Title 18 Buildings and Construction- Chapter 18.46 Regulations to Control Intensification of Water Consumption in the California-American Water Company Service Area. In areas within the California-American Water Company Service Area and subject to

Monterey County Ordinance 3310 (codified into County code as Monterey County Code Chapter 18.46), projects must also comply with this ordinance which applies uniform regulations to control intensification of water consumption. This ordinance requires that the proposed project property must also result in a reduction of water use by 10% from the historic use.

It is the purpose and intent of this Chapter to reduce the excessive use of water within the California-American Water Service Company service area and to protect and insure the availability of water for domestic, development, and other purposes, for present as well as for future use, by establishing uniform regulations to control intensification of water consumption in said area (County Ordinance 3310, 1988).

- A. *No person, firm or corporate shall hereinafter, within those portions of the unincorporated area of the County of Monterey which are set forth and specified in Section 18.46.030 of this Chapter, intensify land use over that existing at the time the provisions of this Chapter become effective, except as otherwise provided in this Chapter. For the purpose of this Chapter "intensify land use" means new development resulting in an increase in the use of water on a building site over that level of use of water existing at the time this Chapter was applied to the property. Applications for new development that would intensify land use shall not be considered, except as otherwise provided in this Chapter.*
- B. *This Chapter shall not apply to or prohibit the following:*
 - 6. *Development projects including subdivision, where an applicant demonstrates to the satisfaction of the Planning Director that water conservation measure proposed on or off the affected building site will, in combination with the project for which approval is sought, result in a minimum of ten (10) percent overall decrease in the use of water.*

Monterey Peninsula Water Management District Rule 25.5 Water Use Credits and On-Site Credits.

As part of its oversight of water allocation and distribution, the MPWMD established a program whereby a water customer may obtain and reuse water credits when water use on a particular property is reduced or discontinued. The Proposed Project is utilizing this program as described in this Section and in District Rule 25.5 (see below). In accordance with the requirements of MPWMD Rule 25.5, a property may obtain a water credit that may be used later on the same site; water credits are obtained by changing to a less intensive use, retrofitting equipment with water conserving devices, and/or by abandoning or demolishing a building. The property owner applies to the Water District for the water credit and the Water District calculates the amount of the credit based upon the number and types of water-using fixtures that will be discontinued. Under Rule 25.5, a documented water credit obtained from the Water District may be applied to, and shall allow future water use on that site at any time within a period of 60 months. The owner may apply for one extension of the 60-month period. However, after this time, remaining unused water use credits expire according to the Rule. There are no provisions for further extensions. MPWMD Rule 25.5 stipulates how the District determines the water use credit allocations for its management area, as identified in the following excerpts from the Rule:

- A. *Except where a Water Permit has been abandoned, expired, Revoked, Suspended, or canceled under these Rules, a Person may receive a Water Use Credit for the permanent abandonment of some or all of the prior water use on that Site by one of the methods set forth in this Rule. Water Use Credits shall be documented by written correspondence between the District and the property owner, and shall remain valid unless prohibited by this Rule. Water Use Credits shall not be documented by notice on a property title, except as specified in Rule 25.5-G. Except as allowed by Rule 28, Water Use Credits shall not be transferable to any other Site.*

- B. *Water savings resulting from mandatory District programs, including water savings resulting from the installation of Low Water Use Plumbing Fixtures Mandated by the District, shall not result in a Water Use Credit. Such savings shall be set aside as permanent water conservation savings essential to the District's 15 percent conservation goal approved by the Board in March 1984.*
- C. *A Water Use Credit may be applied to and shall allow future water use on that Site at any time within a period of 60 months. After the 60th month, the General Manager shall allow renewal of this Water Use Credit only upon verification that some or all water savings represented by that credit are current (i.e. no Water Permit or other use or transfer of the Water Use Credit has occurred). If all savings are not current, a pro-rata reduction shall occur. A single renewal period of 60 months shall be allowed; thereafter any remaining unused Water Use Credit shall expire.*
- D. *A Water Use Credit on a Redevelopment Project site may, in addition to the time limits and in the manner set forth above, have its expiration date extended for two (2) additional periods of sixty (60) months each, to afford any such Redevelopment Project a maximum period of two hundred forty (240) months to use that credit.*
- E. *The following types of Permanent Abandonment of Capacity shall qualify for a Water Use Credit under this Rule:*
 - 1. *Demolition of a building or use that has been recognized by the District as being a lawful water use;*
 - 2. *Permanent disconnection of a lawful water use from a Water Distribution System;*
 - 3. *Residential removal of water fixtures;*
 - 4. *Permanent installation of non-Mandated water fixtures or appliances.*
- F. *To determine a Water Use Credit, the General Manager shall:*
 - 1. *Verify that the reduction is one with is permanent (i.e. Permanent Abandonment of Use).*
 - 2. *Quantify the Water Use Capacity of the Site using the water use factors from Rule 24, Tables 1 and/or 2. If no factor is available on Table 2 or if the use is substantially different than any of the uses shown on Table 2, the General Manager may make an estimate based upon water records showing the average use over a minimum of ten years.*
 - 3. *Grant a Water Use Credit for the permanent removal of water using fixtures providing that the fixture was properly and lawfully installed. Credit for fixtures listed in Rule 24-A-2 shall only receive a Water Use Credit upon evidence of a Water Permit showing a debit to a Jurisdiction's Allocation and payment of related Connection Charges.*
 - a. *Water Use Credits for multiple Showerheads shall be limited to a maximum of four (4) fixture units per Separate Stall Shower or Bathtub. A Shower System shall be considered a component of a Separate Stall Shower or Bathtub for purposes of this Rule.*
 - b. *Credit shall not be given for any reduction which occurs as the result of the removal of Landscaping installed without a Water Permit or installed pursuant to a Water Permit for New Construction. An exception to this limitation shall be made for Non-Residential Landscaping that was specifically identified, quantified, and permitted by the District. Any Water Use Credit granted under this subdivision shall be determined using the Estimated Applied Water for the increment of landscaping being permanently abandoned.*
 - 4. *Quantify the water use reduction (the abandoned Capacity) using the following methods:*

- a. *Residential Water Use Credit for demolitions, permanent disconnection of water service, and permanent removal of water fixtures shall be determined using the Fixture Unit Values from Rule 24, Table 1: Residential Fixture Unit Count Values.*
- b. *Residential Water Use Credits shall only be granted for installation of ultra-low consumption appliances. Table 4: Ultra-Low Consumption Appliance Credits shall list the ultra-low consumption appliances and the quantity of Water Use Credit available for the permanent installation of the appliance. This table shall be amended by Resolution of the Board of Directors.*

Thresholds of Significance

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs, or
- Not comply with federal, state, and local statutes and regulations related to solid waste.

Additionally, per CEQA Guidelines, a project impact would be considered significant if the project would:

- 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).

Impacts and Mitigation

Water Supply

All properties that modify or add water fixtures on a property within the MPWMD must obtain written authorization from the District prior to taking action. MPWMD and the Monterey County Water

Resources Agency have reviewed the proposed project with regards to water supply and have provided insight into the analysis included within this Draft EIR. The project proposes the redevelopment of a former convalescent hospital site into 33 market rate residential units and 13 affordable and workforce units, as well as development of a 2,100 square foot gym. Due to long-term water supply concerns and existing regulations within the MPWMD and the County, new and rehabilitative developments are required to implement water conservation to the extent possible. This project will be required to comply with the rules and requirements of MPWMD Rule 25.5 and water conservation measures consistent with Monterey County Municipal Code, including Monterey County Municipal Code 18.46 (Ordinance 3310). Project application components and consistency with the rules and regulations under both Rule 25.5 and Monterey County Municipal Code are discussed below.

Application and Consistency with MPWMD Rule 25.5

Table 4.14-1 displays the water use credit for the project site as estimated by MPWMD under Rule 25.5. The MPWMD Rules and Regulations. The calculations of Water Use Credits (Rule 25.5) will require verification by the District of permanent abandonment of use and final determination of the water use credit for the site. The proposed project would not be considered a new connection by MPWMD; the project site has been developed since the 1930s and retains existing water service. Additionally, Monterey County has determined that the existing use permit for the convalescent hospital is still valid and in this case, the operations of the convalescent hospital could be reinstituted without additional entitlements to reuse the property's water credit. As the project site has not been considered to be abandoned under MPWMD's Rule 25.5, the project site has retained the estimated 8.226 AFY water credit based upon its previous use as a convalescent hospital as identified in **Table 4.14-1**, below.

Table 4.14-1			
Available Water Use Credit for Convalescent Hospital Site Estimated by MPWMD under Rule 25.5			
Category of Previous Use	Unit Count	Demand Factor	<u>Acre-feet/Year (AFY)</u>
Main Building, Skilled nursing beds	65 beds	0.12000	7.80 AFY*
Ancillary Building(s)	6,080 square feet	0.00007	0.426 AFY**
Total			8.226 AFY
*Based upon water demand factor of 0.120 per skilled nursing bed per MPWMD			
**Based upon 0.00007 water demand factor for Group 1 Non-Residential Uses per MPWMD			
Source: MPWMD Rule 25.5, MPWMD Letter dated February 5, 2008, and MPWMD Demand Factors; Refer to Appendix L-1 and L-2 of this EIR.			

Based on the proposed project and the applicable water demand for fixture counts per the MPWMD Residential Water Release Form, the estimated water demand for the proposed residential project is approximately 6.865 acre-feet per year. See **Table 4.14-2** and **Appendix L** for a summary of the water demand projection for the proposed project.

Table 4.14-2		
Water Demand Projections for Housing and Gym		
Unit Number	# Units	Total
Affordable		
1-8,	8	
11	1	
Affordable* - SUBTOTAL		0.696 AFY
Workforce		
9, 10	2	
12,13	2	
Workforce* - SUBTOTAL		0.72 AFY
Market Rate		
14-23, 26, 27	12	
24-25, 28, 29	4	
30-34	5	
35, 37-40, 42*	6	
36, 41*	2	
43-46	4	
Market Rate* - SUBTOTAL		5.302 AFY
Gym		
Gym** - SUBTOTAL		0.147 AFY
TOTAL DEMAND PROJECTED		6.865 AFY
<p>*Source: Based upon applicant submittal of Residential Water Release Form and Water Permit Application as reviewed by Monterey County Water Resourced Agency, Monterey County Planning, MPWMD</p> <p>**Source: Based upon applicant submittal of Non-Residential Water Release Form and Water Permit Application and independent review as noted above. All water demand factors and water credits will be subject to final approval by MPWMD</p> <p>*** Per personal communication with MPWMD staff, the proposed project would not involve a new connection, and thus there would be no inclusion of the project's estimated landscaping water demand included within the project's application in accordance with Rules and Regulations of the MPWMD.</p>		

The applicants propose to abandon use as a convalescent hospital under the regulations set forth by MPWMD Rule 25.5. After a final determination has been made by MPWMD regarding the abandonment of an approved-use with water use credits available, those credits may be reassigned/renewed at any point within 60 months. The Rules allow the General Manager of MPWMD to approve a renewal of the water use credit only upon verification that some or all water savings represented by that credit are current (i.e., no water permit or other use or transfer of the water use credit has occurred). Only one renewal period of 60 months is provided in Rule 25.5, for a total of ten years allowable use of water credits. As such, under application of the rules for water credits, the property maintains water credits on the site for up to ten years after abandonment of use.

Consistency with MPWMD Rule 25.5. The water credit under Rule 25.5 and demand calculations identified above and included in **Appendix L**, have been reviewed by Monterey County Water Resource Agency, Monterey County Planning, and MPWMD. The project water demand estimates of 6.865 AFY for residential and gymnasium uses would be reduced from the site's existing water credit of 8.226 AFY (Letter from MPWMD dated February 5, 2008, see **Appendix L**). As such, the proposed project's water demand would amount to 16.5% less than the estimated water credits attributed to the project site under Rule 25.5. The MPWMD Rules and Regulations, including the process for calculating Water Use Credits (Rule 25.5), will be used to verify the final water use credit for the site; the District will require verification by the District of permanent abandonment of use and final determination of the water use credit for the site. The project is considered consistent with the applicable regulations under MPWMD Rule 25.5 based on the proposed project's application, MPWMD letter dated February 5, 2008. However, final consistency with Rule 25.5 must be verified by the MPWMD per the regulations of the District.

Application and Consistency with Monterey County Ordinance 3310 (Municipal Code 18.46)

Under Monterey County Ordinance 3310 (Municipal Code 18.46), new subdivisions must provide for a ten percent reduction in water demand from uses at the time the ordinance took effect. Application of the required reduction in water demand per County Ordinance is shown in **Table 4.14-3**.

Table 4.14-3 Water Credit Summary under MPWMD Rule 25.5 and Monterey County Ordinance 3310 (County Municipal Code 18.46)	
	<u>Acre-feet/Year</u> <u>(AFY)</u>
<u>Credit Allowed Under Rule 25.5 Subject to Approval of MPWMD</u>	
Main Building, 65 Skilled nursing beds + Ancillary Building(s)*	8.226 AFY
Inclusion of Monterey County Ordinance 3310 (8.226-10%)**	0.8226 AFY
Residual Credit Available	7.4034 AFY
<u>Demand</u>	
46 Residential Condominium Units	6.718 AFY
Gym	0.147 AFY
Total Demand	6.865 AFY***
Residual - Subtotal (Net AFY)	0.5384****
* Source: MPWMD Letter dated February 5, 2008. ** Source: Chapter 18.46 of Title 18 Monterey County Buildings & Construction Code. *** Source: Initial Water Use/Nitrate Impact Questionnaire dated February 6, 2008 **** Difference between available credit (8.226) and projected demand (6.865) is 1.37 AFY unused credit without application of Ordinance 3310 10% requirement.	

Consistency with Monterey County Municipal Code 18.46 Regulations (Ordinance 3310): The applicant will be required to comply with Monterey County Municipal Code 18.46 Regulations (Ordinance 3310) as part of the conditions of approval for the project; these regulations require demonstration to the satisfaction of the Planning Director that water conservation measures proposed on or off the affected building site will, in combination with the project for which approval is sought, result in a minimum of 10% overall decrease in the use of water. With application of these requirements, and with implementation of the mitigation measure identified below, the proposed project would be considered consistent with the Monterey County Municipal Code 18.46 Regulations (Ordinance 3310).

Existing Conditions Versus Past Water Use Under Rule 25.5

The project site has been undergoing consideration for development the property for some time. An early effort included a request for annexation into the City of Carmel-by-the-Sea (**Appendix D Initial Study for Carmel Convalescent Hospital Annexation, 2003**). Subsequently, a project application to Monterey County was initiated for the current project (2007). The application to Monterey County identifies that the convalescent hospital use at the project site was active until 2005. Additional information on historical use is contained in **Appendix F, Historical Resource Documents**.

Current use of the site is limited to use of the former nurses' quarters building; operation of the convalescent hospital building and garage/shop building ceased in 2005. In accordance with standard CEQA baseline, a projects impact analysis is normally based upon the existing site conditions at the time the NOP is released. Water estimates based upon existing uses of the site at the time the NOP was released (operation of the nurse's quarter only) provides a water use of approximately .426 AFY (as noted in the MPWMD letter dated February 5, 2008 and included in **Appendix L**, the number and type of fixtures within the nurses' quarters would result in an estimate water use of .426 AFY.) Under this baseline assumption, the proposed project would result in an additional 6.865 AFY of water demand from the existing water supply system.

As the project site has not been considered to be abandoned under MPWMD's Rule 25.5, the project site also retains the estimated 8.226 AFY water credit and current entitlements for the land use with Monterey County based upon its history of use as a convalescent hospital. Long-term operation of the convalescent hospital occurred over 35 years. As indicated above, application of MPWMD water demand factors for the number and type of fixtures within the facilities during the time of hospital operation results in an estimated past water estimate of use of 8.226 AFY. Essentially, the water credits of 8.226 AFY are retained for the proposed project under Rule 25.5; the credit is currently being held pending future development of the property. Rules of the MPWMD indicate that the water credit is held for up to ten years.

During periods when the project site has been operating at less than capacity, total credit has not been fully utilized, and 8.226 AFY of water have not been drawn from the Cal-Am system.

Per CEQA's defined thresholds of significance regarding potential impacts to water supply, a project impact would be considered significant if: the project would have insufficient water supplies available to serve the project from existing entitlements and resources; it required new or expanded entitlements; it required or resulted in the construction of new water treatment facility (or facilities) or the expansion of existing facilities; and/or construction may cause significant environmental effects. As noted previously, the water would be supplied by Cal-Am (the primary water purveyor in the Carmel area). The sources of supply for the subject parcel are the Carmel Valley Alluvial Aquifer (CVAA) and the Monterey Peninsula Water Resource System, components of the Cal-Am distribution system. The source of supply is within the jurisdiction of the SWRCB. The project site retains an existing water entitlement; the proposed project would not require a new or expanded entitlement nor would it require construction of new water treatment facilities or the expansion of existing facilities. The application does not entail an increase in the total Cal-Am production limit from the Carmel River or Seaside Basins, which are controlled by SWRCB Order 95-10; nor does it require a change in Monterey County's allocation under MPWMD. Specifically, the project site has available existing water credits amounting to 8.226 AFY and there would be no increase in allowed water use because water credited under MPWMD Rule 25.5 for a previous and historical use on the site would be used. The project would not result in the development of new wells. Additionally, there would be no change to

current Cal-Am production limits, and no net increase in allowed water use associated with the historic uses on the property.

Additionally, per CEQA Guidelines, a project impact would be considered significant if the project would “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).” Upon buildout on the property, the proposed project would use approximately 6.865 AFY of water from the existing water supply system that is not currently being accessed under the existing conditions on the project site. During the 2008 reporting period (Water Year 2008), Cal-Am production from the Carmel River was 10,660 AF. Proposed additional use of 6.865 AFY for the proposed project represents .0006% of the total amount that Cal-Am currently accesses from the Carmel River watershed under WY 2008. Thus, the proposed project’s water usage is considered to be less-than-significant in regards to its project-level impact upon groundwater supplies and groundwater recharge. Further, implementation of the proposed project would access an entitled water allocation that has been used throughout an approximate 35 year history of the site, although minimally accessed since the closure of the Carmel Convalescent Hospital. Monterey County Code 18.46 stipulates that water conservation measures proposed on or off the affected building site will, in combination with the project for which approval is sought, result in a minimum of 10% overall decrease in the use of water. As stated previously, the proposed project would exceed the required 10% reduction of overall water usage by an additional 6%; therefore, the project, by design, proposes to reduce its water consumption beyond County requirements. Mitigation is provided in order to ensure a reduction in proposed water usage compared to historic use by the proposed project.

Implementation of the following mitigation measure as a project condition of approval would ensure that water conservation measures are implemented in conjunction with the proposed project, and would reduce project level impacts to a less-than-significant level. The implementation of this mitigation measure would not result in any new impacts beyond those identified in this Draft EIR.

Impact **The proposed project will be using an incremental amount of water compared to existing conditions at the time of the initiation of the EIR for this project, specifically water from the Cal-Am system that have not been accessed in the recent past. This incremental increase in water demand in comparison to current conditions has the potential to impact water supply. This would represent a potentially significant impact that can be reduced to a less-than-significant level with application of existing rules and regulations of the MPWMD, Monterey County Code and implementation of the following mitigation measure.**

Mitigation

- 4.14-1 The project applicant/developer shall provide evidence to the Monterey County Planning Department and the Monterey County Water Resources Agency that the water credit to serve the proposed project is available for the site through the MPWMD and that the available water credit under Rule 25.5 has been obtained for the property. Documentation of the water use credits to be applied to the site will also require verification by the MPWMD of permanent abandonment of use and final determination of the water use credit for the site. Evidence shall include written verification of 8.226 AFY and a letter from the MPWMD District Manager that the water credit is consistent with previous use of the Carmel Convalescent Hospital as applied under Rule 25.5 and

that the application of the water credit would not impact the Monterey County Water Allocation. The project applicant/developer shall provide further evidence to the Monterey County Planning Department that water use on the site shall reduce the water demand on the site in comparison with historic use of the Carmel Convalescent Hospital by 10% in accordance with Monterey County Ordinance 3310 (Code 18.46) requirements. This evidence shall be provided for review and approval by the Monterey County Planning Department and Monterey County Water Resources Agency for review and approval prior to recordation of the proposed project's final map.

Water System Distribution

Extensions of water supply pipeline on the project site in order to accommodate residential buildout would extend from pipeline along Valley Way, a County road, as indicated by the project's Utility Plan (See **Figure 4.14-1 Utility Plan**). Implementation of the proposed project would involve installation of 6" and 8" plastic pipe for water mains and 2" plastic pipe would be used for service stubs to the water meters located at each unit and common area. Approximately 1000' of main and 850' of service stubs would be installed on the project site in accordance with Cal-Am Water Company Standards and American Water Works Association Standards.

Development of the proposed project would not require the construction of new water system infrastructure in order to address existing infrastructure deficiencies. **Implementation of the proposed project would therefore represent a less-than-significant impact on the existing water system infrastructure.**

Wastewater

Extensions of sewer pipeline on the project site in order to accommodate residential buildout would occur as indicated by the project's Utility Plan (See **Figure 4.14-1 Utility Plan**). Based upon CAWD factors used to estimate residential wastewater production of 100 gallons per day per capita and 3.15 residents (based upon the 2000 US Census) per each of the 46 units of the proposed project, the increase in wastewater generation from project buildout can be estimated as 14,490 GPD (100 gallons per day x 3.15 x 46 units = 14,490 gallons per day) or 0.01 MGD (14,490 gallons per day / 1 million = 0.01 million gallons per day). As this is a conservative estimate used for design purposes, actual usage would likely be more in the range of 50 to 75 GPD per capita; this revised estimate represents at maximum of approximately 0.8% (0.01 million gallons per day / 1.2 million gallons per day unused capacity = 0.8%) of the remaining permitted capacity, and would not constitute a significant impact on CAWD's wastewater treatment facility considering the remaining entitled capacity. Based upon regional population forecasts for the CAWD service area, the treatment facility has sufficient capacity to serve proposed uses and new development for at least the next 10 to 15 years. The adequacy of the collection systems are evaluated intermittently through the periodic preparation of a Sewer System Master Plan by CAWD, and infrastructure improvements are implemented as necessary to meet the required demand of existing and new wastewater generators.

On-site expansion of wastewater infrastructure would include installation of 6" and 8" plastic pipe for laterals, mains, and connection to the district main in Valley Way. Two connections are planned for the proposed project. Approximately 1150' of mains and 800' of laterals would be installed on the project site. Based on the anticipated wastewater flow associated with the proposed project per CAWD factors, 100 gallons per day per capita and 3.15 residents per unit which would result in an increase in wastewater generation as 14,490 GPD or 0.01 MGD, wastewater treatment of the Carmel Area Wastewater District would not be significantly impacted by buildout of the proposed project.

Solid Waste

The project would generate additional solid waste related to the construction and implementation of the proposed project. All solid waste generated by project construction and operation would be disposed of at the Monterey Peninsula Landfill and Recycling Facility. According to the MRWMD website, this facility has capacity to serve its current service area for the next 100 years.

The California Integrated Waste Management Board has calculated that for multi-family unit a residential waste disposal rate of 2.5 daily pounds per person should be used to estimate the solid waste potential of proposed projects. Considering the 2000 US Census designation of 3.15 average persons per household within Monterey County and the 46 units of the proposed project, project operation would be anticipated to generate 362.3 pounds of solid waste per day (2.5 daily pounds x 3.15 person per household x 46 units = 362.3 pounds solid waste per day), or 66.1 tons annually (362.3 pounds solid waste per day x 365 days per year = 132,239.5 pounds solid waste and 132,239.5 pounds solid waste / 2,000 pounds= 66.1 tons).

The project would represent a 1.79% ($66.1 \text{ tons} / 370,000 \text{ tons} = 1.79\%$) increase in solid waste received at the landfill annually. The project's solid waste generation of 362.3 pounds of solid waste per day, or 66.1 tons annually, thus represents an incremental increase in the yearly receipt of solid waste by Monterey Peninsula Landfill that could be accommodated by existing landfill facilities. **The project would result in a less-than-significant impact on solid waste disposal systems.**

Electricity and Natural Gas

The project site would be constructed with residential uses that would increase demands on electricity and natural gas supplies. Extensions of gas and electric transmission connections on the project site in order to accommodate residential buildout would be constructed as indicated on the project's Utility Plan (See **Figure 4.14-1 Utility Plan**). Development of the proposed project would result in both direct and indirect energy consumption. Indirect energy consumption includes: 1) energy consumed by construction vehicles; 2) energy consumed in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials, such as lumber and metal, and; 3) energy consumption related to project land uses (i.e., vehicular traffic generated by residence owners).

Direct energy consumption relates to the ongoing operation of the project site. According to the California Energy Commission (CEC), total energy consumption in California in 2005 was approximately 272,464 M kWh.¹ Monterey County's average annual energy consumption in 2005 was approximately 2,539 M kWh, which represents less than 1% of total electricity consumption in California. According to the U.S. Energy Information Administration (EIA), in 2006 the average consumer in California consumed 590 kWh per month, resulting in an average residential consumption of 7,080 kWh per year per residence. Utilizing this factor, the estimated electricity consumption for the condominium complex would be an estimated 332,760 kWh per year. This is a conservative estimate given the limited need for air conditioning during summer months in the Monterey Peninsula area compared to the rest of the State of California. The additional demands associated with the implementation of the proposed project would result in an incremental, albeit insignificant, increase in the demand for electricity. PG&E had indicated that sufficient capacity would be available to serve anticipated project demand (personal communication, Sr. New Business Representative, Kevin Kennelly, PG&E, August 26, 2008). On-site expansion of infrastructure related to the provision of electricity would be installed in accordance with Pacific Gas and Electric Company standards and would be located in a shared joint underground utility trench. It is expected that 1000' of joint trench would be required on the project site.

¹ Please note that "M" refers to the International System of Units prefix representing "mega," which represents 10⁶.

According to the CEC, total natural gas consumption in California in 2005 was approximately 2,092 T Btu per year.² At the time of report preparation, data regarding Monterey County's average natural gas consumption was not readily available. Project demand has been estimated at 14,337,020 Btu per year, which converted to T Btu equals 0.014 T Btu per year. The additional demands associated with the implementation of the proposed project would result in an incremental increase in the demand for natural gas, and the project would not adversely impact PG&E's ability to provide natural gas services. PG&E has indicated that adequate capacity exists to serve the proposed project (personal communication, Sr. New Business Representative, Kevin Kennelly, PG&E, August 26, 2008). On-site expansion of infrastructure related to the provision of natural gas would be installed in accordance with PG&E standards and would be located in a shared joint underground utility trench. It is expected that 1000' of joint trench would be required on the project site.

Additionally, increased demand for energy and natural gas would also result in additional greenhouse gas emissions as identified in **Section 4.3 Air Quality** of this EIR. While project-induced impacts associated with greenhouse gas emissions are addressed elsewhere in this EIR, it is important to acknowledge the relationship between energy consumption and greenhouse gas emissions. According to the CEC, approximately 20% of greenhouse gas emissions are associated with the energy sector in California. As a result, increased energy demands associated with the construction and operation of the proposed project would contribute toward climate change. However, as identified in **Section 4.3 Air Quality**, the project's contribution towards climate change is considered incremental, and thus not significant.

Cumulative Impacts

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a proposed project when the project's incremental effect is cumulatively considerable. Cumulative impacts refer to two or more individual effects that, when combined, are considerable or that compound or increase other environmental impacts.

The geographic area of the cumulative analysis is the Carmel Area Land Use Planning Area as defined by the Monterey County General Plan. Development under this cumulative scenario would increase the demand for water production and distribution, wastewater collection, treatment and disposal, solid waste disposal, and public utility services including telephone, gas and electric, and television cable. The development of the proposed project and other projects occurring within the region would result in an increased demand for utilities services; however, each project would be required to contribute its proportionate share towards the provision of these services. Several other development projects in the immediate vicinity of the project site may be considered to result in the intensification of the development; these present or probable future construction projects are listed in **Table 5.2-1, Section 5.0 CEQA Considerations**. Pursuant to CEQA Guidelines Sections 15064 and 15130, a project's incremental contribution to a cumulative impact is not cumulatively considerable if the project would comply with the requirements of a previously approved plan or mitigation program that provides specific requirements that would substantially lessen the cumulative problem, or if the project would contribute its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

Project's Contribution to Cumulative Utility Impacts. The proposed project's contribution to cumulative utility impacts is not cumulatively considerable since the increase in demand associated with implementation of the proposed project for any particular utility service would be less-than-significant. The project, as conditioned, would not significantly impact water supply, wastewater collection, treatment and disposal, solid waste disposal, and public utility services including telephone, gas and electric, and television cable. Additionally, while the development of the proposed project and other projects

² Please note that "T" refers to the International System of Units prefix representing "tera," which represents 10¹².

occurring within the region would result in an increased demand for public services, each project would be required to contribute its proportionate share towards the provision of these services and capacity to serve proposed development is currently available as discussed above. Cumulative development in the Carmel Area would be served primarily by the CAWD wastewater treatment facility which has a permitted average dry weather treatment capacity of 3 million gallons per day (MGD) and a remaining 1.2 MGD of capacity. Solid waste generated by cumulative project construction and operation would be disposed of at the Monterey Peninsula Landfill and Recycling Facility. The MRWMD facility has capacity to serve its service area for the next 100 years. Impacts to water supplies are discussed in greater detail below.

Project's Contribution to Cumulative Water Impacts. The proposed use of the project site's existing water credits, specifically 6.865 AFY for the proposed project, of the total amount that Cal-Am currently accesses from the Carmel River watershed would represent a minimal percentage of Cal-Am's overall usage. SWRCB Order 95-10 limits production from the Carmel River to no more than 11,285 AFY (WY). Cal Am production was approximately 10,954 AFY from the Carmel Valley system in water year 2006. Cal Am production from Carmel Valley decreased 83 AFY (0.7%) compared to 2005. During water year 2007, Cal-Am produced 10,444 AFY from the Carmel River, which is 841 AFY below the established limit and 510 AFY less than the previous year. During the 2008 reporting period (Water Year 2008), Cal-Am production from the Carmel River was 10,660 AFY. Proposed additional use of 6.865 AFY for the proposed project represents .0006% of the total amount that Cal-Am currently accesses from the Carmel River watershed under Water Year 2008 and is not considered a significant cumulative impact. Additionally, during this reporting period, Cal-Am's production of 10,660 AFY from the Carmel River was approximately 565 AFY under the SWRCB limit. (*General Manager's Report dated October 20, 2008, entitled, "Status Report on Cal-American Water Compliance with SWRCB Order No. 95-10 and Seaside Basin Decision in Water Year 2008" compiled by Darby Fuerst (<http://www.mpwmd.dst.ca.us> under Board Reports).*)

The proposed project application does not entail an increase in the total Cal-Am production limit from the Carmel River or Seaside Basins, controlled by SWRCB Order WR 95-10; nor does it require a change in Monterey County's allocation under MPWMD. Specifically, the project site has existing water credits amounting to 8.226 AFY. The analysis in this EIR determined that there would be no significant impact from an increase in allowed water use because water credited under MPWMD Rule 25.5 will be used (after verification and documentation requirements of the use are met) and water usage will actually decrease over historic use. Considering the data and information provided above, as well as the conditions and requirements of Ordinance 3310, and the water restrictions and supply planning for the area, the impacts of the proposed project would represent a less-than-significant impact on cumulative water supply, and an overall less-than-significant impact on the service of utilities.

Long-Term Cumulative Impacts to Groundwater and Water Supply: Long-term cumulative impacts concerning groundwater resources and water supply would be associated with the water supply for the development, and buildout of the Carmel Area Land Use Plan, including projects in the planning area listed in **Table 5-2.1** in the Cumulative Section of this EIR. Many of these projects are already approved and under construction, or the environmental documentation for these projects are in progress (or has been completed). For those projects under consideration, as with the proposed Project, each related project requiring discretionary approval would be subject not only to environmental review and application of appropriate water conservation requirements and mitigation measures, but also the requirements of the MPWMD's rules and regulations and Monterey County's allocation under MPWMD. It should be noted that the District's rules also require issuance of a permit to create or amend a water distribution system (WDS). Issuance of a permit for WDS requires findings supported by written evidence, compliance with minimum standards of approval, and mandatory Conditions of Approval, pursuant to MPWMD Rules 22-B, C and D. The applicant must show that the source of supply can

reliably meet the water needs of the project, would not adversely impact existing systems, and would not adversely impact the environment.

Additionally, in areas within the Cal-Am service area and subject to Monterey County Ordinance 3310, projects must also comply with uniform regulations to control intensification of water consumption. This ordinance requires that the proposed project property, and similar projects applying for subdivision within the Cal-Am service area, must result in a reduction of water use. In accordance Ordinance 3310, projects proposing intensification of water consumption must demonstrate a reduction of water use by 10% from the historic use.

Water planning in response to Cal-Am's production limit and Order 95-10 has been in development for some time. In addition to the MPWMD plans for regional water supplies discussed below, the MPWMD and Cal-Am were issued a permit for the Aquifer Storage and Recovery Project. This project provides permanent rights to divert water from the Carmel River during high flows, to be stored and used in the summer when the river is dry. This allows Cal-Am and MPWMD to divert up to 2,426 acre-feet per year from the Carmel River during wet months of the year and only when there is adequate rainfall to do so. The average yield of the project is estimated to be 920 acre-feet annually. The water is diverted from wells in Carmel Valley, treated and routed through the distribution system, and then injected into the two wells in former Fort Ord. Water pumped from these wells during the summer/dry months of the year is delivered to Cal-Am customers and offsets the amount that would otherwise be pumped from Carmel River sources.

Since additional development is severely constrained until regulatory approval of, and investment in, additional water sources, possible new water sources are being explored. On January 30, 2009, the California Public Utilities Commission (CPUC) issued the Draft Environmental Impact Report (DEIR) on Cal-Am's proposed Coastal Water Project (CWP). The CWP EIR analyzes three primary alternatives: the CWP; North Marina Project Alternative; and, a Regional Water Supply Project –Phase 1 and Phase 2 as described below:

1. **Coastal Water Project** – a 10 million-gallon-per-day (MGD) seawater desalination project located at the Moss Landing Power Plant combined with an ASR project diverting water from the Carmel River system and injecting and storing it in the Seaside Groundwater Basin. This project would provide 12,500 acre-feet per annum (AFA) to the Monterey Peninsula area to make up shortfalls in the Carmel River System and the Seaside Groundwater Basin.
2. **North Marina Project** – an 11 MGD desalination project with subsurface intake system in the vicinity of the Marina Coast Water District (MCWD) office at the west end of Reservation Road, combined with Seaside Groundwater Basin ASR project. This project would provide 12,500 AFA to the Monterey Peninsula area.
3. **Regional Water Supply Project** – a combination of several water supply components, including: a desalination project with subsurface intakes located north of Marina between Highway 1 and the coastal dunes; recycled water for non-potable uses; Seaside Groundwater ASR project; diversion and treatment of Salinas River water at the Salinas River Diversion Facility (currently under construction); and injection of highly-purified wastewater from the Monterey Regional Water Pollution Control Agency (MRWPCA) treatment plant into the Seaside Groundwater Basin for groundwater recharge and later recovery for potable uses. The regional project is separated into two phases: Phase 1 would provide 12,500 AFA to the Monterey Peninsula area and 2,700 AFA to the MCWD, including the former Fort Ord area, for a total of 15,200 AFA; Phase 2 would provide additional water supplies of up to 10,400 AFA, including 4,500 AFA for growth on the Monterey Peninsula and 5,900 AFA for North County areas. Source: (<http://www.mpwmd.dst.ca.us/asd/board/boardpacket/2009/20090316/02/item2.htm>)

In addition to the ongoing water supply projects being considered, there are a number of management programs and regulations governing groundwater withdrawal and Carmel River management. The MPWMD has historically implemented an annual program of projects in the Carmel River addressing such objectives as bank stabilization and fisheries habitat protection. These actions are to be incorporated in the Integrated Regional Water Management Plan (IRWMP). The IRWMP seeks to integrate many previous plans and strategies addressing environmental resources in the region, as well as comprehensively address the future management of water resources. These include: Habitat conservation and restoration; Critical Coastal Areas Program (storm water planning); Water supply planning; Groundwater management; Flood management; Water conservation; Recycling and treated wastewater; Wetlands; Recreation; Desalinization; Conjunctive water use; and Carmel River watershed planning. The IRWMP seeks to coordinate the actions of more than 30 stakeholder entities involved in water resource protection, enhancement, and management in the planning Region. IRWMP objectives address local and regional water supply planning, management of surface water and groundwater, augmentation of water supply, ecosystem restoration, water quality improvement, recreation/public access opportunities, conflict resolution, and flood control. The plan includes the action items from the Carmel River Watershed Assessment and Action Plan and the 1984 Carmel River Management Plan. The IRWMP was finalized in November 2007 and is currently posted on the MPWMD website. The IRWMP is intended to improve the Carmel River watershed environment.

The policies and programs of local plans, including the Monterey County General Plan, the Carmel Area Land Use Plan, and the City of Carmel-by-the-Sea General Plan require the provision of an adequate water supply prior to project approval. In the MPWMD and Cal-Am service area, development approval is subject to the availability of adequate water supplies and verification to ensure reduction in historical use at the site. Additional development that cannot document previous water use is constrained until regulatory approval of, and investment in, additional water sources. Possible new water sources are being explored as discussed above. Projects in the area are also subject to requirements for site-specific water assessment, incorporation of site-specific mitigation measures, and applicable County and MPWMD regulations and monitoring to reduce project level impacts to a less-than-significant level. Given the shortage of water supply in the Carmel River system, the buildout of the Area Plan would result in an unavoidable significant cumulative impact until adequate water becomes available. However, buildout in this planning area is currently constrained in accordance with policies and programs and regulations of the Monterey County General Plan, the Carmel Area Land Use Plan, as well as MPWMD regulations.

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5.0 CEQA Considerations

5.1 GROWTH INDUCEMENT

CEQA requires an EIR to discuss the ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Section 15126.2(d).) Included in this evaluation are elements of the project that would remove obstacles to population growth, such as unavailability of major utility capacity or infrastructure. Recognizing the inherent difficulties involved in forecasting the extent and type of development that might be fostered by a particular project, CEQA calls for a general assessment of possible growth-inducing impacts rather than a detailed analysis of a project's specific impacts on growth. Growth inducement may be considered detrimental, beneficial, or insignificant under CEQA. Typically, induced growth is considered a significant adverse impact if it:

- Provides infrastructure or capacity to accommodate growth beyond the levels currently permitted in applicable local and regional plans and policies.
- Encourages growth or a concentration of population in excess of what is planned for in the applicable general plan or other land use plan, or in projections made by regional planning agencies such as the Association of Monterey Bay Area Governments (AMBAG).
- Adversely affects the ability of agencies to provide needed public services or infrastructure.
- In some other way significantly affects the environment, such as through a substantial increase in traffic congestion or deterioration of air quality.

Potential Growth Related to the Project

The proposed project would result in the addition of 46 residential units within the project area and would accommodate an estimated maximum of 145 persons. According to AMBAG, Monterey County is expected to experience a 20 percent growth increase between 2005 and 2030 (AMBAG 2008). Specifically, unincorporated Monterey County (which includes City of Carmel-by-the-Sea vicinity) is anticipated to experience a 7 percent growth increase (a population increase of 7,511) between the planning years of 2005 and 2030 (AMBAG 2008). The population upon implementation of the proposed project would account for approximately 2 percent of the project growth for unincorporated area of the County.

The proposed addition of 46 new residential units would induce population growth by creating housing opportunities in excess of what is currently available. However, this increase would not be substantially above the level currently projected by AMBAG for the region. Additionally, the 46 units would be deducted from the remaining 148 residential units allowed by the Carmel Area Land Use Plan and thus would not exceed residential growth capacity in the planning area. Approval of the proposed project would not contribute a substantial portion of the future growth that is projected to occur within the County.

The project site is located within a developed area within the unincorporated portion of Monterey County. The property is already served by urban services and redevelopment on the site would not result in an expansion of urban services or the pressure to expand beyond the County's existing Sphere of Influence. As the property is surrounded by residential development, the project would not open additional undeveloped land to future growth or provide expanded utility capacity to serve future development.

Instead, it would facilitate the infill of an existing site in an urban setting that is provided with urban services.

Finally, the proposed project would not allow for development that creates population or other growth beyond what is currently permitted under the Monterey County General Plan, Carmel Area Land Use Plan, AMBAG forecasts, and other local and regional plans.

Based upon the above discussion, the project would not result in significant growth-inducing impacts.

5.2 CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a proposed project when the project's incremental effect is cumulatively considerable. Cumulative impacts refer to two or more individual effects that, when combined, are considerable or that compound or increase other environmental impacts. The purpose of the cumulative impact analysis is to identify and summarize the environmental impacts of the proposed project in conjunction with existing, approved, and anticipated development in the project area.

The following assumptions were used in the analysis of cumulative impacts.

- A cumulatively considerable impact occurs only if the proposed project would contribute something to the total effect. A cumulatively considerable impact is more likely to occur if either the project's contribution or the prevailing negative conditions are substantial.
- Pursuant to CEQA Guidelines Sections 15064 and 15130, a project's incremental contribution to a cumulative impact is not cumulatively considerable if the project would comply with the requirements of a previously approved plan or mitigation program that provides specific requirements that would substantially lessen the cumulative problem, or if the project would contribute its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- All direct effects of the proposed project have the potential to contribute to cumulatively considerable impacts, even if they are individually less-than-significant.
- The geographic area considered in the cumulative impact analysis for construction and local operational impacts (in the areas of construction air quality, construction noise, geology and soils, and hydrology) is the local vicinity of the proposed project site. Consistent with CEQA Guidelines Section 15130(b)(1)(A), this Draft EIR is using a list approach for the cumulative analysis of local vicinity impacts. The present and probable future projects shown in **Table 5.2-1** were considered in the analyses of cumulative impacts contained in the Draft EIR.
- In the case of aesthetics, agricultural resources, air quality, biological resources, cultural resources, hazards and hazardous waste, land use, public services, traffic and utilities, the geographic area considered is Monterey County, and those cumulative analyses rely upon assumptions within the Monterey County General Plan and the Carmel Area Land Use Plan.
- The analysis incorporates past and present projects by hereby acknowledging their contribution to existing negative or sensitive conditions.

As mentioned above, consistent with CEQA Guidelines Section 15130(b)(1)(A), this Draft EIR is using a list approach for the cumulative analysis of local vicinity impacts in the areas of construction air quality, construction noise, geology and soils, and hydrology. The present and probable future projects shown in **Table 5.2-1** were considered in the analyses of cumulative impacts contained in the Draft EIR.

Table 5.2-1 Probable Future Projects Located in the Project Vicinity to be Considered in the Cumulative Analysis		
Projects	Project Status	Project Size
City of Carmel-by-the-Sea		
APPROVED		
1. Mixed Use SE corner Dolores & 7th	Awaiting Final Entitlements and Permits/ unknown timing	
Condominiums/Apartments		8 Units
Commercial Retail		3,000 SQ. FT.
PROPOSED		
2. Carmel Sands Lodge Redevelopment San Carlos & 5th	Final Entitlements and Permits / unknown timing	16 Rooms
County of Monterey		
APPROVED		
3. Quail Meadows	Condition compliance working towards pulling final permits	mixed use
4. Canada Woods	Entitlements ongoing construction	
Single Family Units		44 Units
Home Improvement Center		18,000 SQ. FT.
5. Rancho San Carlos (Santa Lucia Preserve)	Final Entitlements ongoing construction	338 Units
6. Rancho San Carlos - Potrero Creek Area	Final Entitlements ongoing	29 Units
7. Crossroads Shopping Center Expansion – Highway 1 and Rio Road	Construction Completed; not yet occupied	20,260 SQ. FT.
PROPOSED		
8. Regan Bed & Breakfast – Riley Road	Incomplete application 3/09; awaiting approval from departments	10 Rooms
9. Val Verde Affordable Housing – Val Verde Road & Carmel Valley Road, Carmel Valley	TBD	89 units
10. Rancho Canada Village – Carmel Valley Road, Carmel Valley	Awaiting Re-Circulated Draft EIR	281 Units
11. Carmel Mission Inn Expansion, including parking lot improvements	Awaiting Final Entitlements / unknown timing	Unknown
12. Carmel Hill and River Bicycle Trail Project	Environmental Review	Approx. 1.7 miles
13. Highway 1 Climbing Lane (Widening) Project – Addition of another lane along Highway 1 Carmel Valley Road to Rio Road	Environmental Review/Construction potentially during 2010	Approx. ½ mile
14. North Extension Trail Project, up Hatton Canyon to connect with Carpenter Avenue, Highway 1, and/or Highway 68	Pre-planning / unknown timing	Approx. ½ mile
15. Carmel Valley Bike Trail, connect to an existing 0.70-mile Class III bicycle route on an adjacent Quail Lodge property to the east. West of the Proposed Project, a future trail could continue on a new levee and terminate at Highway 1 south of Carmel River.	Pre-planning / unknown timing	1.1-mile Class I bicycle trail
16. South Extension Trail Project, east of Highway 1 from Rio Road south to the Carmel River, including a bridge across Carmel River	Pre-planning / unknown timing review	Approx. 1½ mile
17. Potential Palo Corona Parking Lot near Carmel River east of Proposed Project Site	Pre-planning / unknown timing review	Site location and size are unknown, therefore it is not shown in figures.
<p>Note 1: This cumulative analysis does not consider the construction or remodel of single-family residences as probable future projects pursuant to recent case law. The list above includes only projects for which it is assumed that the applicant has devoted significant time and financial resources in a regulatory review process (pursuant to Gray v. County of Madera (2008) which stated “only probable future projects must be analyzed under cumulative impacts analysis, any future project where the applicant has devoted significant time and financial resources to prepare for any regulatory review should be considered as probable future projects for the purposes of cumulative impact.”)</p> <p>Source: Personal communication with Hatch-Mott (formerly, Higgins Associates, Inc.), City of Carmel-by-the-Sea, and County of Monterey, January 2009.</p>		

Potential cumulative impacts associated with the project are addressed within the respective sections of this Draft EIR. Potential cumulative impacts from the project would be in the areas of aesthetics, air quality, biological resources, cultural resources, hydrology and water quality, public services, traffic, and utilities, as discussed in **Section 4.1 Aesthetics, Section 4.3 Air Quality, Section 4.4 Biological Resources, Section 4.5 Cultural Resources, Section 4.8 Hydrology and Water Quality, Section 4.12 Public Services, Section 4.13 Traffic & Circulation and Section 4.14 Utilities and Service Systems.** These potential cumulative impacts would be either less-than-significant or reduced to a less-than-significant level with mitigation as identified in the sections.

5.3 SIGNIFICANT UNAVOIDABLE IMPACTS

The proposed project would result in significant impacts in the following categories, as described in this Draft EIR: aesthetics, air quality, biological resources, cultural resources, geology, hazards, hydrology, noise, public services, and traffic. All project impacts can be reduced to a less-than-significant level with implementation of mitigation identified in this Draft EIR, with the exception of the following:

- A significant unavoidable impact due to development in the Highway 1 viewshed which would impact a scenic resource.

5.4 IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126(f) of the State CEQA Guidelines requires EIRs to include a discussion of significant, irreversible environmental changes that would result from project implementation. CEQA Section 15126.2(c) identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

The project would develop residential uses on the site. Irreversible changes associated with the project include the use of nonrenewable resources during construction, including building materials (such as concrete, glass, some types of plastic) and use of petroleum products. During the operational phase of the project, natural gas and electricity would be used for lighting, cooling, and heating.

6.0 Alternatives

6.1 INTRODUCTION

CEQA Guidelines section 15126.6 requires the consideration of a range of reasonable alternatives to the proposed project that could feasibly attain most of the objectives of the proposed project. The Guidelines further require that the discussion focus on alternatives capable of eliminating significant adverse impacts of the project or reducing them to a less-than-significant level, even if the alternative would not fully attain the project objectives or would be more costly. The purpose of the alternative analysis, according to CEQA *Guidelines* Section 15126.6(a), is to describe a range of reasonable alternative projects that could feasibly attain most of the objectives of the Proposed Project and to evaluate the comparative merits of the alternatives.

CEQA Guidelines Section 15126.6(b) requires consideration of alternatives that could reduce to a less than significant level or eliminate any significant adverse environmental effects of the Proposed Project, including alternatives that may be more costly or could otherwise impede the Proposed Project's objectives. The range of alternatives evaluated in an EIR is governed by a "rule of reason," which requires the evaluation of alternatives "necessary to permit a reasoned choice." An EIR need not consider alternatives that have effects that cannot be reasonably ascertained and/or are remote and speculative. Alternatives considered must include those that offer substantial environmental advantages over the proposed project and may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors. In accordance with the CEQA Guidelines, the alternatives considered in this Draft EIR include those that 1) could accomplish most of the basic objectives of the project and 2) could avoid or substantially lessen one or more of the significant effects of the project.

6.2 SUMMARY OF PROJECT OBJECTIVES AND SIGNIFICANT IMPACTS

Proposed Project Characteristics

The proposed project includes a subdivision and a combined development permit to allow the construction of 46 residential units on a 3.68-acre site. The following are project components:

- a local coastal plan amendment to change land use designation from medium density residential to high density residential;
- rezoning from MDR/2 to HDR/12.5 in the coastal zone;
- a coastal development permit and standard subdivision to convert a 10,350-square foot former convalescent hospital site into nine condominium units and develop 37 additional condominium units for a total of 46 units;
- a coastal administrative permit to demolish one existing structure and construct 12 buildings for a total of 46 condominium units;
- a coast development permit to allow development on slopes of 30% or greater and removal of approximately 97 trees over 12" in diameter (21 Coast Live Oak, 76 Monterey Pines); and
- design approval.

Objectives

The primary objectives of the project, as described in **3.0 Project Description** of this Draft EIR and as identified by the applicant, are as follows:

- Rehabilitate and preserve a historic community institution;
- Establish a high quality residential village community to house future residents within the County;
- Provide market rate, affordable, and work force housing stock to the Monterey Peninsula with 20% designated as affordable and workforce housing; and
- Reuse vacated buildings on a site with infill development.

Significant Impacts

The proposed project would result in potentially significant impacts in the following categories, as described in this Draft EIR: aesthetics, air quality, biological resources, cultural resources, geology, hazards, hydrology, noise, public services, population/housing, traffic, and utilities. All project impacts can be reduced to a less-than-significant level with implementation of mitigation identified in this Draft EIR, with the exception of the following:

- A significant unavoidable project impact upon aesthetics, associated with the proposed project's impact upon a scenic resource (Highway 1).

6.3 ANALYSIS OF EXCLUDED ALTERNATIVES

Alternatives Not Analyzed in Detail

The following discussion addresses alternatives that were considered but not selected for detailed analysis. In addition to the alternatives evaluated in **Section 6.3** below, an off-site alternative and variations in the proposed project have been considered for their potential to reduce the environmental impacts of the proposed project. These alternatives were preliminarily considered, but eventually excluded from full comparative analysis within the Draft EIR because they were determined to be infeasible, they were unable to meet the objectives of the proposed project, and/or they were not likely to reduce significant environmental impacts of the proposed project. Alternatives considered, but rejected, are briefly discussed below.

6.3.1 Alternative Location.

Many development projects can be relocated to a variety of locations and still meet the stated objectives of the project. However, the proposed project is explicitly tied to the former Carmel Convalescent Hospital site and involves rehabilitation and renovation of this historic property. For water to be available to this site, the use of the existing water credits from the previous use of the building is needed. There are few single sites remaining within the area that could accommodate the project in terms water availability due to the restrictions on new development within the MPWMD area. Additionally, the project site contains previously disturbed habitat. Most sites in the area are either developed or already committed to existing or planned development. Moreover, development of the proposed project in another area would have similar impacts related to traffic, air quality, noise, and other issues. For these reasons, this Draft EIR does not examine in detail an alternative location for the proposed project, and further evaluation of an alternative site was eliminated from further consideration.

6.3.2 Alternative Density and Development under Annexation to City of Carmel-by-the-Sea.

The City of Carmel-by-the-Sea previously considered a submittal for development of the site under the City's General Plan and zoning. The proposal included annexation of this site to the City, rezoning to R-4 under City designation, and potential development of a multi-family residential project. The City of Carmel-by-the-Sea prepared a Draft Initial Study/Negative Declaration for this proposed project, included as **Appendix M** of this Draft EIR. The project site is within the City's Sphere of Influence boundary as determined by the Monterey County Local Agency Formation Commission. As this was a previous proposal, this was considered as a possible alternative to the proposed project.

The project was identified in the Initial Study (IS) as the "Leidig/Carmel Hospital Annexation," and the IS considered three potential development scenarios under a City R-4 zoning. The City's R-4 District zoning district allows up to 44 dwelling units per acre. Calculating the maximum capacity for residential construction in the R-4 districts in very rough terms can allow for a maximum potential of up to 162 multi-family units based upon the City's zoning ordinance. The Initial Study assumed development of one of three development densities under the R-4 zoning:

- 1) Condominium project of a maximum of 65 residential units;
 - 2) Buildout at 33 units/acre for a maximum of 122 residential units; and
 - 3) Maximum buildout at 44 units/acre resulting in 162 residential units.
- (These units were assumed to be low- income units in the Initial Study.)

This alternative would result in similar light and glare impacts compared to those associated with the proposed project. The perceived change of the site from vacant, partially developed land to highly dense residential uses would be more significant than the proposed project due to the increased density/intensity of this alternative.

This alternative would generate greater project traffic volumes than the proposed project due to the increased number of residential units. Impacts associated with transportation/circulation would be more than the proposed project. According to the Initial Study prepared for the City of Carmel-by-the-Sea for the Carmel Convalescent Hospital property annexation request, potential impacts from traffic under the R-4 densities described above would result in daily traffic trips on the street system over 1,000 vehicle trips per day.

The construction of a maximum of 162 residential units would result in greater short-term air quality impacts than those generated by the proposed project. Impacts would result from short-term construction due to additional trucks and construction vehicle traffic. This alternative would result in long-term mobile source emissions greater than the proposed project. The additional units developed through this alternative would generate traffic volumes greater than those generated by the proposed project, thereby increasing long-term mobile source emissions. This alternative would result in greater short-term impacts than the proposed project during construction activities, due to the increased number of units to be built. Noise impacts generated by the increase in traffic also would be greater than the proposed project. This alternative could potentially result in an increase in water runoff that is greater than that of the proposed project due to the additional units to be constructed. This alternative would result in increased surface water runoff due to the additional impermeable structures and surfaces, and would require expanded storm drainage improvements in comparison to the proposed project. The development of this alternative would still be required to take into consideration significant cultural historic resources located on site similar to the proposed project; however, the additional development and density proposed on the site may cause development to be located closer to the designated historic resource in comparison

to the proposed by the project. Although this alternative would allow a high-density residential development consistent with project objectives and result in a residential infill site, the development at this density would be at a much higher intensity than the surrounding neighborhood, resulting in greater impacts than the proposed project.¹ Additionally, the significant unavoidable project impact upon aesthetics associated with impacts to a scenic resource would be worsened under this alternative, due to increased density on the site.

The project proposal for annexation and development under the City of Carmel by the Sea was withdrawn by the project proponents. Therefore, expanded evaluation of this alternative was eliminated from further consideration in this document.

6.4 ANALYSIS OF ALTERNATIVES SELECTED FOR FURTHER REVIEW

The following section discusses the alternatives evaluated in this Draft EIR and the comparative environmental effects of each. The alternatives considered in this analysis are as follows:

- No Project
- Alternative Land Use- Visitor Serving Development
- Existing Zoning Project Alternative
- Applicant's Modified Design Project Alternative
- Reduced Density Project Alternative
- Increased Percentage of Low and Moderate Income Units Project Alternative

The alternatives chosen for this analysis, beyond those mandated by CEQA, were developed to avoid or substantially reduce the significant impacts of the project.

6.4.1 No Project

Description

As required by CEQA *Guidelines* Section 15126.6(e), a No Project Alternative has been evaluated. CEQA requires the discussion of the No Project Alternative "to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." According to the CEQA *Guidelines* Section 15126.6(e)(2), the No Project Alternative shall discuss what would reasonably be expected to occur in the *foreseeable future* if the project were not approved. Thus, the No Project/No Development Alternative consists of the environmental conditions that currently exist with no future development on the project site, representing a "no development" scenario in which the site is left in its current condition (per CEQA Guidelines Section 15126.6(e)(3)).

CEQA Guidelines Section 15126.6(e)(3)(B) identifies that for a project other than a land use or regulatory plan, the no project alternative is the circumstance under which the project does not proceed, going on to state that the discussion should address "the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed."

¹ Although the City of Carmel-by-the-Sea City Council did not take action on the project, the Planning Commission voted unanimously (3-0) to recommend the Carmel Convalescent Hospital property annexation request be denied at a meeting in the April 2007 meeting. Subsequently, the project application to the City was withdrawn, and the project application under consideration in this Draft EIR was filed with the County of Monterey.

Therefore, this analysis discusses both the existing conditions (No Project/No Development Alternative) and the use of the current buildings on the site (No Project/Existing Building Use) as discussed below. The No Project/Existing Building Use assumes a No Project scenario but with the buildings existing on the site being restored and used under the existing land use designation as a convalescent hospital. Under this scenario, it is reasonably assumed that since the property has existing entitlements which allow uses on the site, the property and buildings would be restored in order to serve once again as a convalescent hospital. No demolition activities have occurred on the project site and no permitting or project approval has occurred in order to change the use designation of the project site. Conditions such as the project site's existing water allocation and potential for traffic impacts are considered to therefore be valid for consideration of this Alternative.

Impacts - No Project/No Development Alternative

In accordance with the CEQA Guidelines, Section 15126.6(e)(3)(B), the No Project Alternative assumes that the proposed project would not be approved and no new development would occur within the project site. Thus, the physical conditions of the project site, including the existing surface parking areas adjacent to the existing buildings, would remain as they are today. None of the existing facilities would be expanded or rehabilitated, the existing buildings would continue to function as they currently do, and the existing on-site associated surface parking would remain unchanged. Additionally, the road access from Highway 1 would remain open.

The No Project/No Development Alternative would avoid both the adverse and beneficial effects of the proposed project. The existing setting as described in this Draft EIR would continue on the project site under this Alternative. Under the No Project/No Development Alternative, no traffic impacts or air quality emissions would result from either construction or operation of high density residential land uses on the project site. This alternative would not contribute to short-term construction related impacts due to the addition of truck and construction vehicle traffic. This alternative also would not result in vehicular increases on the surrounding street system. Traffic improvements proposed for the project area would not be implemented with the No Project/No Development alternative; however they would be unnecessary with this alternative. This alternative would not result in impacts to public services and utilities as identified due to implementation of the proposed project. The No Project/No Development alternative would not place demands on existing public service facilities and services that currently accommodate the site. This alternative would not result in the development of new landscaping in the project area and proposed new mature landscaping along Highway One as proposed under the applicant's landscaping plan.

The existing biological and cultural setting, as described in this Draft EIR, would remain as existing on the project site under this Alternative. No impacts to biological resources on the site or cultural impacts resulting from the inadvertent discovery of significant cultural resources or human remains would occur under this alternative. Under this alternative, permanent impacts associated with an impact to a scenic resource would be avoided. This alternative would avoid all aesthetics/light and glare impacts associated with the proposed project. A significant cultural resource currently exists on the project site, and this historic resource would not be rehabilitated or adapted to another use under the No Project/No Development Alternative. Since the project site would remain in its current vacant state, potential impacts related to land use compatibility associated with the proposed project would not occur. The building may continue to deteriorate without intervention or reuse of the vacated buildings.

This Alternative would avoid the significant or potentially significant environmental impacts of the project in the following areas: aesthetics, air quality, biological resources, cultural resources, geological resources, hazards, hydrology and water quality, noise, public services, and traffic. This includes the

avoidance of an unmitigable impact upon a scenic resource. However, this alternative is inconsistent with the stated goals for the site that call for the project to rehabilitate and preserve a historic building.

Impacts - No Project/Existing Building Use

As previously stated, a No Project Alternative scenario could also consider the restoration of the project site in order to provide use as a convalescent hospital. The physical conditions of the project site, including the existing surface parking areas adjacent to the existing buildings, would remain as they are today. The property buildings currently in use (previous Nurse's Facility) would continue their existing use and the buildings used for the convalescent hospital would be rehabilitated to function as a residential hospital. It is assumed that the existing surface parking would remain unchanged. Additionally, the road access from Highway 1 would remain open. If this were to occur, the potential impacts of the operation of the hospital would be those that were originally approved for use of the project site, including historic trip generation rates such as 306 daily trips as described in **Section 4.13 Traffic and Circulation** and historic water usage of 8.226 AFY/Y based upon MPWMD Rule 25.5 as described in **Section 4.14 Utilities and Service Systems**.

This option of the Alternative would avoid most of the significant or potentially significant environmental impacts of the proposed project, including the avoidance of an unmitigable impact upon a scenic resource. However, this alternative is inconsistent with the stated goals for the site.

Summary

Although the No Project Alternative that would opt to leave the project site undeveloped and would avoid the extent of the environmental impacts of the proposed project, this alternative would fail to meet any of the project objectives, including the adaptive reuse of a historic structure. Rehabilitation of the project site for use as a convalescent hospital would involve minor environmental impacts; however, would re-introduce vehicle trips and water usage that have been essentially dormant since the closing of the convalescent hospital. Further, this option of the No Project Alternative would fail to meet the applicant's project objectives to develop a residential community on the project site which would include affordable housing.

6.4.2 Alternative Land Use – Visitor Serving Development

Description

The Alternative Land Use Alternative would propose that the project site be developed consistent with California Coastal Commission goals of expanding visitor serving development within the state's coastal zone. It could be reasonably assumed that a visitor serving development on the project site would consist of the establishment of a hotel complex on the property. Although exact building mass and specifications are not known, it could also be reasonably assumed that the overall build-out on the project site would resemble the proposed project, with reuse of the existing hospital buildings through conversion into hotel suites and/or rooms and the placing of additional detached hotel buildings primarily on the periphery of the property.

This project alternative assumes that the design would have a similar configuration and general layout as the proposed project with buildings, common areas, major access points, and roadways located in the same areas. However, if a visitor serving alternative were to be implemented with a similar water demand as that of the proposed project, it can be assumed that due to water use factors for hotel units the maximum amount of hotel rooms that could be located on the project site would be sixty-seven (67) units, assuming a gym would remain within project design. It can be reasonably assumed that the square

footage of the individual hotel units would be greater than the square footage of an average hotel room; however, it can also be assumed that the average square footage of the individual hotel units would be less than the residential units of the proposed project. Therefore, it can be assumed that implementation of a visitor serving alternative would result in an overall square footage and density on the project site similar to that of the proposed project.

Impacts

Aesthetics. Although actual site design cannot be determined without site plans of this Alternative, it is reasonable to assume that the proposed project's significant and unavoidable visual impact to the Highway 1 corridor would not be reduced or avoided.

Air Quality. This Alternative would have similar construction-related air pollution emissions and would have a slightly lower amount of air pollution emissions from vehicle trips associated with the development. Overall, the air quality impacts of this Alternative would be similar or slightly less than those of the proposed project.

Biological Resources. This Alternative would involve development on the majority of the site, comparable to the proposed project. This would result in similar impacts on trees, special status species, and other biotic resources. The impacts to biological resources would be equal to those of the proposed project.

Cultural Resources. This Alternative would involve development on the majority of the site, resulting in potential impacts to undiscovered archaeological resources comparable to the proposed project. The impacts to cultural resources would be generally equal to those of the proposed project.

Geology/Soils. Due to the fact that the building footprint would likely be unchanged, the impacts related to geology and soils would be generally equal to those of the proposed project.

Hazards and Hazardous Materials. As the building footprint would be unchanged, the impacts related to hazardous materials would be equal to those of the proposed project.

Hydrology/Water Quality. Development under this Alternative would be subject to Monterey County drainage impacts. For both the proposed project and this alternative, water quality impacts would be minimized through onsite drainage facilities and implementation of required BMPs. The hydrology and water quality impacts would be generally equal to those of the proposed project.

Land Use. Development of an alternative land use, such as visitor serving commercial, would not be inconsistent with the allowable land uses for the site as it would be foreseeable that a similar LCP Amendment as the proposed project would be proposed for any such development. Additionally, installation of visitor serving facilities on the project site would meet California Coastal Commission goals of expanding visitor serving facilities within the coastal zone.

Noise. The construction period for the Visitor Serving Alternative would be assumed to occur over a similar period. Thus, the noise impacts associated with the proposed project would not be reduced or lessened.

Public Services & Utilities. This Alternative would result in a similar demand for services and utilities comparable to the proposed project. Due to water use factors designed for hotel units, this Alternative assumes that 67 hotel units would be the maximum allowable units that could be installed on the project site in keeping with the water demand of the proposed project. Based upon MPWMD non-residential

water use factors, these hotel rooms would require 0.100 AFY/Y per room, thus 6.7 AFY/Y total, as compared to 6.718 AFY/Y of the proposed project. Overall public services and utilities impact would be generally equal to the proposed project.

Traffic. This Alternative would introduce additional non-residential traffic into an existing residential neighborhood. As previously stated, this Alternative assumes that the maximum amount of hotel units allowable on the project site would be 67 hotel rooms (units). By utilizing Institute of Transportation Engineers (ITE) trip generation rates applied to the proposed project within the traffic study, the Visitor Serving Alternative would generate approximately 598 trips during a typical weekday and 704 trips during a typical weekend day. The Visitor Serving Alternative would be expected to generate 55% more daily vehicle trips during a weekday and 73% more daily vehicle trips during a weekend day than the total daily trips estimated for the proposed project.

Summary

A visitor-serving commercial development on the project site would be inconsistent with planning documents. Residential development, such as the proposed project, is generally considered a preferred land use for an area surrounded by residential properties or an infill site. It is assumed that the Visitor Serving Alternative would provide similar square footage of development as compared to the proposed project.

Under the Visitor Serving Alternative, the primary project objectives of the project would not be met. This alternative would conflict with the applicant's project objectives to develop a residential community on the project site which would include affordable housing.

6.4.3 Existing Zoning Project

Description

The Existing Zoning Alternative consists of developing the project site with residential uses as proposed, but under the existing zoning for the site of MDR/2. This Alternative would result in the construction of 7 single-family residences consistent with the current land use plan and zoning designation for the project site. This Alternative assumes that the residential lots would be created through a subdivision with the majority of the new lots developed along Valley Way and the remainder within the interior of the project site. No structures are assumed to be located immediately adjacent to the project site's boundary with the Highway 1 corridor. Building mass and design for residential structures is unknown; however, the residential homes are assumed to have a scale and mass similar to the larger homes in the project vicinity. As a component of the Existing Zoning Project Alternative, 4 units would be designated as market rate units, 1 unit would be designated as an Affordable to moderate-income unit, 1 unit would be designated as a Low-income unit, and 1 unit would be designated as a Very Low-income unit, per Monterey County's Inclusionary Housing Ordinance.

Impacts

Aesthetics. This Alternative could avoid a significant impact of the proposed project by removing the majority of the development of the residential units along Highway 1 and retaining more trees on the project site. The effects from new light and glare sources would be less than under the proposed project, particularly on the east side of the project site where the proposed eight units of low-income housing are currently located in the project layout plans (Units 1-8). The impacts of this Alternative on aesthetics would be less than those of the proposed project.

Air Quality. Based on URBEMIS modeling conducted for this alternative, the Existing Zoning Alternative would result a reduction of impacts from the generation of emissions from the creation of 7 residential units in comparison to the proposed project. Construction emissions would be reduced from those estimated for the proposed project given that the smaller number of units and project area would be affected by grading activities and construction. The Existing Zoning Alternative would result in reduced mobile source emissions including PM₁₀, ozone precursors, and GHGs due to the reduced vehicle trip generation. Implementation of mitigation measures recommended for the proposed project would also reduce the level of air quality impacts associated with this alternative. Under both scenarios, air quality impacts would be less-than-significant.

Biological Resources. This Alternative would reduce the proposed project's impacts to biological resources because of its reduced footprint. Under the Existing Zoning Alternative, the development footprint would be reduced to allow the construction of 7 residential units compared to the 46 units of the proposed project. As such, the biological impacts identified under the proposed project would be reduced. Depending on design, impacts associated with tree removal and effects to sensitive species would be reduced. Mitigation measures recommended for the proposed project would also reduce the biological impacts associated with this alternative to a less than significant level. The impacts of the Existing Zoning Alternative to biological resources would be less than those of the proposed project.

Cultural Resources. Because of its reduced footprint, this Alternative could reduce potential impacts to undiscovered cultural resources. The impacts of the Existing Zoning Alternative to cultural resources would be less than those of the proposed project in the area of archaeological impacts. In relation to the historical building on the site, the impacts under this alternative could be similar if this Alternative also included rehabilitation of the existing historic building, perhaps as a community center, through the development of the site. If such rehabilitation of the historic buildings located on the project site did not occur as part of this Alternative, the Existing Zoning Alternative would have greater impacts in terms of potential impacts to the existing historical resources on the site due to potential deterioration of an existing identified historic resource.

Geology/Soils. Under the Existing Zoning Alternative, development would be decreased, which would decrease grading on the site by reducing the size of the overall development. Short-term construction impacts associated with the potential for erosion, accelerated runoff, and sedimentation are expected to be less than those anticipated for the proposed project given that the project area that would be affected by grading activities during construction would be decreased. Implementation of mitigation recommended for the proposed project would also reduce the levels of impacts associated with this alternative. The site would be subject to the same soil, geologic, and seismic hazards for both the proposed project and this alternative. Under the Existing Zoning Alternative, impacts associated with seismicity and soil stability would likewise be similar to the proposed project. With mitigation, the impacts related to geology and soils from the Existing Zoning Alternative would be less than those of the proposed project.

Hazards and Hazardous Materials. This Alternative would decrease overall disturbance on the site, which could lessen possible remediation efforts if required. As such, grading, excavation and demolition activities associated with construction of the Existing Zoning Alternative would be reduced in comparison to the proposed project. However, there is still the possibility for potential impacts associated with undiscovered contamination, risks to underground utilities, hazardous materials involvement, asbestos and lead based paint exposure, and the demolition of buildings. Implementation of mitigation recommended for the proposed project would also reduce the levels of impacts associated with this Alternative. The impacts related to hazardous materials from the Existing Zoning Alternative may be somewhat less than those of the proposed project.

Hydrology/Water Quality. This Alternative would reduce impervious surfaces compared to the proposed project. Short-term construction impacts to water quality associated with the potential for erosion, and sediment discharge into the storm drainage system would be less than the proposed project. This Alternative would be required to provide onsite drainage facilities and implement BMPs to avoid significant water quality impacts. The hydrology and water quality impacts of this Alternative would be somewhat less than those of the proposed project.

Land Use. The Existing Zoning Alternative consists of developing the project site with residential uses as proposed however, under the existing zoning for the site of MDR/2. This alternative would be consistent with County and Coastal land use planning documents and land use designations to provide medium density residential on the site at the allowable density. This alternative is considered more consistent with specific policies in the Coastal Plan for the site and would be more consistent with the surrounding neighborhood, although less development is included than envisioned by the project objectives. Ultimate consistency with scenic policies would be dependent upon future residence design and subdivision layout; however, assuming there would be less development within the viewshed of the Highway 1 scenic corridor, this alternative would avoid the significant and unavoidable impact of the proposed project.

Noise. Construction noise impacts from this alternative would be reduced in accordance with the decrease in site development and traffic generated by the project. During project operations, traffic noise impacts along nearby streets would be reduced from the generation of fewer vehicle trips. This would reduce the cumulative noise effects of the project. This alternative would presumably reduce the construction schedule, lessening impacts to the sensitive receptors of the residential community adjacent to the site. Further, less intensive development on the project site could result in greater setback from Highway 1 in general, which would lessen noise impacts upon the project site from the highway. The noise impacts of the Existing Zoning Alternative would be less than those of the proposed project.

Public Services & Utilities. This Alternative would reduce the overall demand on services and utilities by decreasing the amount of development on the project site by 39 residential units. This Alternative would reduce the demand on police and fire services, parks, water, sanitary sewer, and solid waste disposal services, as well as energy. It is estimated that water demand under this Alternative would be 1.50 AF/Y based upon MPWMD residential water use factors. This estimated demand would be 5.82 AF/Y less than estimated demand of the proposed project. The public services and utilities impacts of the Existing Zoning Alternative would be significantly less than those of the proposed project.

Traffic. By utilizing *Institute of Transportation Engineers (ITE)* trip generation rates applied to the proposed project within the traffic study, the Existing Zoning Alternative is expected to generate approximately 70 daily vehicle trips, compared to the 269 total daily trips estimated for the Proposed Project (*Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003*). This would significantly reduce traffic impacts at some of the studied intersections and roadway sections, but will not avoid traffic impacts reported for the project on the intersections and roadway segments analyzed. This is also true for the regional cumulative impacts. For both the proposed project and this Alternative, local traffic impacts would be mitigable to less-than-significant levels. The traffic impacts of the Existing Zoning Alternative would be less than those of the proposed project.

Summary

The Existing Zoning Alternative would lessen the overall impacts of the development by reducing the area of development and reducing the residential units from 46 units to 7 units allowed under the existing land use plan. This Alternative would avoid the proposed project's significant unavoidable impact upon a scenic resource.

Under the Existing Zoning Alternative, the primary objectives of the proposed project would not be met. This Alternative would conflict with the Applicant's project objectives to develop a larger residential community on the site, including affordable housing, and could also conflict with the goal of rehabilitation of the existing historic buildings on the site.

6.4.4 Applicant's Modified Design Project

Description

As proposed by the Project Applicant, this Modified Design Alternative for the Villas de Carmelo Project would consist of the development of 46 units with the same designation of affordable moderate income, workforce, and market rate as proposed under the project. This Alternative consists of modifying the project design to relocate Units 5-8 and 12-13, currently located in the southeast corner of the project site along Highway 1. These units would be placed within a building located in the northeast portion of the site, along Highway 1 in the area proposed under the existing site plan for Units 1-4. The new two-story structure would be approximately 35 feet high and would be approximately 120 feet in length. A site plan for the Modified Design Project is included within **Appendix N**. The stated purpose of this alternative design is to avoid the significant impacts of the project on aesthetics from the development of the building housing Units 5-8, as this building of the proposed project would be the most visible structure from Highway 1. This Alternative would provide a parking area in the southeast corner of the project site in the general location of this proposed building.

This Alternative would be consistent with the Applicant's objectives to rehabilitate and preserve a historic building, establish the residential community, and provide market rate, affordable, and work force housing stock, as well as meet the objective of reuse of vacated buildings on a site with infill development. As a component of the Applicant's Modified Design Project Alternative, 36 units would be designated as market rate units, 4 units would be designated as Moderate-income units, 3 units would be designated as Low-income units, and 3 units would be designated as Very Low-income units, per Monterey County's Inclusionary Housing Ordinance.

Impacts

Aesthetics. This Alternative would avoid the project's significant impact upon a scenic resource by removing two buildings: 1) one 28 foot high, approximately 45 x 100 foot building containing Units 5-8 located on the southeast border of the project and fronting on Highway 1; and 2) one 28 foot high, approximately 3,000 square foot building containing Units 12 and 13. This area would be used for parking and landscaping in the Alternative Design. The units would be housed in a building located to the north along Highway 1. This Alternative would avoid the unmitigable aesthetic project impacts on a scenic resource. The impacts of this alternative on aesthetics would therefore be less than those of the proposed project.

Air Quality. This Alternative assumes similar development levels as the proposed project. This Alternative would result in similar impacts from the generation of regional emissions similar to the proposed project as vehicle trips would be the same as a result of either. The potential construction related impacts would only be slightly reduced due to the reduction of the buildings; however, earth movement and grading would still be required for the proposed parking in these areas. All other air quality impacts would be comparable to the project. The impacts of the Modified Design Alternative to air quality would be generally equal to those of the proposed project.

Biological Resources. This Alternative would involve development on the majority of the site, comparable to the proposed project. This would result in similar impacts on trees, special status species,

Biological Resources. This Alternative would involve development on the majority of the site, comparable to the proposed project. This would result in similar impacts on trees, special status species, and other biotic resources. The impacts of the Modified Design Alternative to biological resources would be generally equal to those of the proposed project.

Cultural Resources. Although the building mass would be slightly reduced, this Alternative would involve development on the majority of the site, resulting in potential impacts to undiscovered archaeological resources comparable to the proposed project. The impacts of the Modified Design Alternative to cultural resources would be generally equal to those of the proposed project.

Geology/Soils. Although the building mass would be slightly reduced, the impacts related to geology and soils from the Modified Design Alternative would be similar to the proposed project in the areas of seismicity and exposure to seismic hazards. The impacts of the Modified Design Alternative to geology/soils resources would be generally equal to those of the proposed project.

Hazards and Hazardous Materials. Although the building mass would be somewhat reduced, the impacts related to hazardous materials and possible remediation efforts associated with the construction and rehabilitation of the historic structure would be generally equal to those of the proposed project.

Hydrology/Water Quality. Development under this Alternative would be subject to Monterey County drainage requirements. For both the proposed project and this Alternative, water quality impacts would be minimized through onsite drainage facilities and implementation of required BMPs. The hydrology and water quality impacts of the Modified Design Alternative would be generally equal to those of the proposed project. A Preliminary Drainage Report, dated October 20, 2008, was prepared for the Modified Design Project that has been included within **Appendix N**.

Land Use. This Alternative would be inconsistent with County and Coastal land use planning documents and land use designations to provide medium density residential on the site. This alternative design would, however, be more consistent with the policies related to scenic resources in the Carmel Area Land Use Plan. This Alternative would still conflict with specific policies in the Coastal Plan another other planning documents for the project site, although less in comparison to the proposed project.

Noise. The Modified Design Alternative would result in the similar construction and operational noise sources associated with the project. Traffic noise impacts would be generally comparable to the project since traffic generated under this Alternative would be the same as the proposed project. The noise impacts of the Modified Design Alternative would generally equal to those of the proposed project.

Public Services & Utilities. This Alternative would result in the demand for services and utilities that is consistent with the proposed project. The public services and utilities impacts of the Modified Design Alternative would be equal to those of the proposed project.

Traffic. As does the proposed project, this Alternative proposes 46 residential units. Traffic generated under this alternative would be equal as from the proposed project and would result in the same traffic impacts. The traffic impacts of the Modified Design Alternative would therefore be equal to the proposed project

Summary

This Alternative would avoid the project's significant impact upon a scenic resource by removing two large buildings of the proposed project's design from within the public viewshed of Highway 1. This project may also reduce impacts to hydrology and water quality depending on design. Impacts related to

traffic and demands on public services would be equal when compared to the proposed project. Due to its similar development intensity, this Alternative would otherwise result in environmental impacts comparable to the proposed project. This Alternative would be consistent with the Applicant's objectives to rehabilitate and preserve a historic building, establish the residential community and provide market rate, affordable and work force housing stock, as well as meet the objective of reuse of vacated buildings on a site with infill development.

6.4.5 Reduced Density Project

Description

This Alternative consists of reducing the number of units on the project site in order to avoid or lessen the majority of the proposed project's impacts. The Reduced Project Alternative consists of reducing the project to a residential multi-family development of 37 units. As a component of the Reduced Project Alternative, 26 units would be designated as market rate units, 3 units would be designated as affordable to Moderate-income units, 3 units would be designated as Low-income units, and 3 units would be designated as Very Low-income units, per Monterey County's Inclusionary Housing Ordinance.

This Alternative: 1) reduces four of the units in the area proposed for Units 1-8 along Highway 1, 2) reconfigures the site plan in order to provide a landscape berm along Highway 1 as well as parking and landscaping in the area of the project site where proposed Units 1-8 are currently located, and 3) eliminates three units in the area of Units 24-28 in order to address neighborhood concerns regarding viewshed along Valley Way, as well as Unit 23 and Unit 32 in order to further reduce the impacts from density of development and construction on areas exceeding 30% slope.

Impacts

Aesthetics. This Alternative would avoid the project's significant unavoidable impact to a scenic resource by lessening development within the majority of the area of the Highway 1 corridor viewshed. This Alternative also includes less overall development, which would in turn reduce the visual effects of the project. Implementation of this Alternative would result in retention of more trees on the project site and offer the opportunity for increased set back and landscaping on the project site's border with Highway 1. The effects from new light and glare sources would be less than under the proposed project particularly on the east side of the project site where the existing eight units of low-income housing are currently located in project site plans (Units 1-8). The impacts of this Alternative on aesthetics would be less than those of the proposed project.

Air Quality. Based on URBEMIS modeling conducted for this Alternative, the Reduced Project Alternative would result a slight reduction of impacts from the generation of emissions from the creation of 37 residential units in comparison to the 46 units of the proposed project. Construction emissions will be reduced from those estimated for the proposed project given the reduction of 9 units and the correlated reduction of grading activities and construction. The Reduced Project Alternative would result in reduced mobile source emissions including PM₁₀, ozone precursors, and GHGs due to the reduced vehicle trip generation. Implementation of mitigation measures recommended for the proposed project would also reduce the level of air quality impacts associated with this alternative. Under both scenarios, air quality impacts would be less-than-significant.

Biological Resources. This Alternative would reduce the proposed project's impacts to biological resources, including trees, because of its reduced footprint. Under the Reduced Project Alternative, the development footprint would be reduced to allow the construction of 37 residential units compared to the 46 units described for the proposed project. As such, the biological impacts identified under the proposed

project would be reduced. Depending on design, impacts associated with tree removal and effects to sensitive species would be reduced. Mitigation measures recommended for the proposed project would also reduce the biological impacts associated with this alternative to a less-than-significant level. The impacts of the Reduced Project Alternative to biological resources would be less than those of the proposed project.

Cultural Resources. Because of its reduced grading, this Alternative could reduce potential impacts to undiscovered cultural resources. The impacts of the Reduced Project Alternative to cultural resources would be less than those of the proposed project in the area of archaeological impacts. In relation to the historical buildings on the site, the impacts under this alternative could be similar if this alternative also includes full rehabilitation of the existing historic buildings through the development of the site.

Geology/Soils. Under the Reduced Project Alternative, development would be decreased, which would decrease overall grading on the site by reducing the size of the overall development. Short-term construction impacts associated with the potential for erosion, accelerated runoff, and sedimentation are expected to be less than those anticipated for the proposed project given that the project area that would be affected by grading activities during construction would be decreased. Additionally, this project alternative would remove Unit 32 from the original site plan, which would greatly reduce the percentage of site development on areas exceeding 30% slope. Implementation of mitigation recommended for the proposed project would also reduce the levels of impacts associated with this alternative. The site would be subject to the same soil, geologic, and seismic hazards for both the proposed project and this alternative. Under the Reduced Project Alternative, impacts associated with seismicity and soil stability would likewise be similar to the proposed project. With mitigation and reduction of development on areas exceeding 30% slope, impacts related to geology and soils under this alternative would be less than those of the proposed project.

Hazards and Hazardous Materials. Demolition activities associated with construction of the Reduced Project Alternative would be slightly reduced in comparison to the proposed project. However, there is still the possibility of potential impacts associated with undiscovered contamination, risks to underground utilities, hazardous materials involvement, asbestos and lead-based paint exposure, and the demolition of buildings. Implementation of mitigation recommended for the proposed project would also reduce the levels of impacts associated with this alternative. The impacts related to hazardous materials from the Reduced Project Alternative may be somewhat less than those of the proposed project.

Hydrology/Water Quality. This Alternative would reduce impervious surfaces compared to the proposed project. Short-term construction impacts to water quality associated with the potential for erosion and sediment discharge into the storm drainage system would be less than the proposed project. This Alternative would be required to provide onsite drainage facilities and implement BMPs to avoid significant water quality impacts. The hydrology and water quality impacts of this alternative would be somewhat less than those of the proposed project.

Land Use. This Alternative would not be consistent with County and Coastal land use planning documents and land use designations to provide medium density residential on the site at MDR/2. This Alternative is considered more consistent with specific policies in the Coastal Plan for the site, although less development is included than envisioned by the project objectives and the project would remain inconsistent with the type of development surrounding the project site. Ultimate consistency with policies would be dependent upon future residence design and layout.

Noise. Construction noise impacts from this Alternative would be reduced in accordance with the decrease in site development and traffic generated by the project and due to the increased area from residences located immediately adjacent to the northwest portion of the project site and construction

activities. During project operations, traffic noise impacts along nearby streets would be reduced from the generation of fewer vehicle trips. This would reduce the cumulative noise effects of the project. This Alternative would presumably slightly reduce the construction schedule, lessening impacts to the sensitive receptors of the residential community adjacent to the site. The noise impacts of the Reduced Project Alternative would be less than those of the proposed project.

Public Services & Utilities. This Alternative would reduce the overall demand on services and utilities by decreasing the amount of development on the project site from 46 units to 37 units. The water demand of this Alternative is estimated to be 5.697 AF/Y (5.55 AFY for the 37 units + 0.147 AFY for the gym) based upon MPWMD residential water use factors. This estimated demand is 1.17 AFY/Y less than that of the proposed project. This Alternative would reduce the demand on police and fire services, parks, water, sanitary sewer, and solid waste disposal services, as well as energy. The public services and utilities impacts of the Reduced Project Alternative would therefore be less than those of the proposed project.

Traffic. The Reduced Project Alternative is expected to reduce the 269 total daily trips estimated for the proposed project by up to twenty percent. This would reduce traffic impacts at some of the studied intersections and roadway sections, but will not avoid traffic impacts reported for the proposed project on the intersections and roadway segments analyzed. This is also true for the regional cumulative impacts. For both the proposed project and this Alternative, local traffic impacts would be mitigable to less-than-significant levels. The traffic impacts of the Reduced Project Alternative would be less than those of the proposed project.

Summary

The Reduced Project Alternative would lessen the overall impacts of the development by reducing the area of development and reducing the residential units from 46 units to 37 units. This Alternative would still require a land use plan amendment. The Reduced Density Alternative would avoid the project's significant unavoidable impact on a scenic resource as project development within the Highway 1 corridor viewshed would be reduced. Under the Reduced Project Alternative, some but not all of the project objectives of the proposed project would be met. This Alternative would conflict with the Applicant's project objectives to develop a larger residential community on the site. This Alternative would be consistent with the Applicant's objectives to rehabilitate and preserve a historic building, establish the residential community and provide market rate, affordable, and work force housing stock, as well as meet the objective of reuse of vacated buildings on a site with infill development.

6.4.6 Increased Percentage of Low and Moderate Income Units

Description

As proposed by the applicant, the Villas de Carmelo Project on the former Carmel Convalescent Hospital property consists of 46 units, a mix of affordable moderate income, workforce, and market rate, as follows:

- 9 Units: Affordable to moderate income units
- 4 Units: Workforce units
- 33 Units: Market rate units

According to Monterey County's Inclusionary Housing Ordinance, the Ordinance requires that 8% be affordable to Moderate-income households (3.68 units), 6% to Low-income households (2.76 units), and 6% to Very Low-income households (2.76 units) "unless a modification to those requirements is

determined to be appropriate for the specific project and approved as part of the project.” The project, as proposed, does not include units for Low-income and Very Low-income households. Under this Alternative, the project would abide by the Ordinance by providing Low-income and Very Low-income units, as follows:

- 36 Units: Market rate units
- 4 Units: Affordable to moderate income, including workforce units
- 3 Units: Low-income
- 3 Units: Very Low-income

Another option under this Alternative would be for the project to increase the percentage of Affordable to moderate income to 35% of all units, as follows:

- 30 Units: Market rate units
- 16 Units: Affordable to moderate income

Impacts

Aesthetics. This Alternative would not reduce or avoid the project’s significant unavoidable impact to the scenic resource of the Highway 1 corridor.

Air Quality. This Alternative would have the same construction-related and other air pollution emissions from vehicle trips associated with the development. The air quality impacts of this alternative would be the same as with the proposed project.

Biological Resources. This Alternative would involve development on the majority of the site, comparable to the proposed project. This would result in similar impacts on trees, special status species, and other biotic resources. The impacts to biological resources would be the same as those of the proposed project.

Cultural Resources. This Alternative would involve development on the majority of the site, resulting in potential impacts to undiscovered archaeological resources comparable to the project. The impacts to cultural resources would be equal to those of the proposed project.

Geology/Soils. Due to the fact that the building footprint would be unchanged, the impacts related to geology and soils would be equal to those of the proposed project.

Hazards and Hazardous Materials. As the building footprint would be unchanged, the impacts related to hazardous materials would be equal to those of the proposed project.

Hydrology/Water Quality. Development under this Alternative would be subject to the County requirements. For both the proposed project and this Alternative, water quality impacts would be minimized through onsite drainage facilities and implementation of required BMPs. The hydrology and water quality impacts would be equal to those of the proposed project.

Land Use. The project is subject to the County’s Inclusionary Housing Ordinance that requires that 20% of the total number of units proposed be Inclusionary units. Of the 20% required, the Ordinance further requires that 8% be affordable to Moderate-income households, 6% to Low-income households, and 6% to Very Low-income households, unless a modification to those requirements is determined to be appropriate for the specific project and approved as part of the project. Thus, the proposed project would be required to supply 9.2 Inclusionary units, with 9 units constructed on the site and the 0.2 remaining

requirement being in the form of an in-lieu fee. The project is proposing 9 moderate-income units and is requesting approval of a modification to the affordability levels required by the Inclusionary Ordinance. Under this proposed Alternative, the project would comply with the County's Inclusionary Housing Ordinance by providing the required inclusionary units for each income level designation, as identified above, or the project would increase the level of inclusionary housing to be constructed on the project site. All other impacts associated with land use would be equal to the proposed project.

Noise. This Alternative would have the same construction-related impacts and schedule and thus, the noise impacts would be equal to those of the proposed project.

Public Services & Utilities. This alternative would result in the demand for services and utilities comparable to the proposed project. The public services and utilities impacts of would be equal to those of the proposed project.

Traffic. The traffic under this Alternative would not trigger new impacts under existing plus project and short-term plus project conditions, nor would it trigger new impacts along the roadway or freeway segments. This Alternative would result in equal traffic impacts as the proposed project.

Summary

Due to its similar development intensity, this Alternative would otherwise result in environmental impacts equal to the proposed project for the impacts cited. The increase in affordable housing provided under this Alternative is the only difference in terms of project components and impacts when compared to the proposed project.

This Alternative would be consistent with the Applicant's objectives to rehabilitate and preserve a historic building, establish the residential community, and reuse the vacated buildings on a site with infill development. However, this Alternative would not fully meet the applicant's objectives of provision of market rate housing in the residential housing mix requested by the proposed project.

Comparison of Alternatives

A comparison of the impacts for each alternative is presented in **Table 6.4-1**. For those areas where the impacts are not reduced or changed from those of the proposed project, the analysis is abbreviated.

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Table 6.4-1
Comparison of Impacts – Project Alternatives

Impact	No Project	Visitor Serving	Existing Zoning	Applicant's Modified Design	Reduced Density	Higher Percent Low Income
Aesthetics	<	=	<	<	<	=
Agricultural Resources	=	=	=	=	=	=
Air Quality	<	=	<	=	<	=
Biological Resources	<	=	<	=	<	=
Cultural Resources	<	=	<	=	=	=
Geology/Soils	<	=	<	=	<	=
Hazards & Hazardous Materials	<	=	<	=	=	=
Hydrology & Water Quality	<	=	<	=	<	=
Land Use & Planning	<	=	<	=	<	<
Noise	<	=	<	=	<	=
Public Services & Utilities	<	=	<	=	<	=
Traffic	<	>	<	=	<	=
Overall Compared to Project	<	>	<	<	<	=
> Impact Greater than Project = Impact Comparable to Project < Impact Less than Project						

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative to the proposed project be specified, if one is identified. In general, the environmentally superior alternative is supposed to minimize adverse impacts to the project site and surrounding environment while achieving the basic objectives of the project. The No Project/No Development alternative could be considered the environmentally superior alternative because all adverse impacts associated with project construction and operation would be avoided. However, CEQA Guidelines section 15126.6(e)(2) states: “If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Based on the analysis in the alternatives discussion, several design changes could reduce the environmental impacts of the project as proposed.

The Alternative Land Use – Visitor Serving Development Alternative would involve the construction of a hotel facility on the project site. This Alternative would have similar impacts as the proposed project in all areas aside from its significant increase to traffic in the project site’s vicinity. This Alternative would also be inconsistent with the surrounding land use of the project site and would not meet a primary project objective of the establishment of a residential community on the project site.

The Existing Zoning Alternative consists of developing the project site with residential uses as proposed, but under the existing zoning for the site of MDR/2. This Alternative would avoid the unmitigable impact of the proposed project to a scenic resource. However, this Alternative would

not be capable of meeting the majority of the project objectives, including a principal project objective of the adaptive re-use of a historic building and the establishment of a residential community on the project site.

The Modified Design alternative would avoid the significant unavoidable impact associated with the development of buildings within the Highway 1 scenic corridor that would adversely impact this scenic resource. This design alternative would otherwise result in impacts similar to the project as proposed and would meet the applicant's project objectives of the adaptive re-use of a historic building and to develop a residential community on the project site.

The Reduced Project Alternative would not only avoid the unmitigable impact upon a scenic resource by reducing construction within the Highway 1 viewshed but would also reduce impacts in most other areas by decreasing the development density and building footprint on the project site.

The Increased Percentage of Low and Moderate Income Units Alternative would increase the amount of low and moderate income units amongst the residential units proposed for construction on the project site; however, would otherwise result in the same impacts as the proposed project.

A comparison of the impacts of each alternative relative to the proposed project is presented in **Table 6.4-1**. Among the alternatives aside from the No Project/No Development Alternative, the Reduced Project alternative would represent the environmentally superior alternative, since it avoids or reduces many of the project's impacts associated with more intense development on the site. The Reduced Project alternative would allow the proposed project to meet its objectives, while insuring that adverse environmental impacts are reduced to the extent feasible. This alternative would reduce impacts in other impact areas in accordance with the decrease in development. Therefore, after the analysis of potential alternatives to the proposed project, the environmentally superior alternative is considered to be the Reduced Project Alternative.

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7.0 References

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CD CONTENTS

**Villas De Carmelo Project Draft Environmental Impact Report Volume I:
Draft Environmental Impact Report**

**Villas De Carmelo Project Draft Environmental Impact Report Volume II:
Appendices**

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