COUNTY OF MARIN, CALIFORNIA

THE OAKS
Senior Living Community

ADDENDUM TO THE
2005 OAKVIEW MASTER PLAN, USE PERMIT, VESTING TENTATIVE MAP FINAL ENVIRONMENTAL IMPACT REPORT

MARCH 2018

Douglas Herring & Associates
Environmental, Policy, and Planning Services

THE OAKS Senior Living Community

Addendum to the 2005 *Oakview Master Plan, Use Permit, Vesting Tentative Map Final Environmental Impact Report*

TABLE OF CONTENTS

Page

Chapter 1: Introduction and Project History 1
1.1 Project History and Context 1
1.2 Environmental Review of Proposed Project 4
Chapter 2: Summary of Project Evaluated in Prior EIR 5
2.1 Project Location 5
2.2 Description of Previous Project 6
2.3 Description of Revised Previous Project 8
Chapter 3: Description of the Proposed 2017 Project 8
3.1 Project Overview 8
3.2 Project Objectives 9
3.3 Project Location and Site Characteristics 10
3.4 Project Description 14
3.4.1 Residential Care Facility 14
3.4.2 Affordable Apartment Building 25
3.4.3 Architectural Design 25
3.4.4 Site Grading 32
3.4.5 Site Access, Circulation, and Parking 32
3.4.6 Stormwater Collection and Treatment 35
3.4.7 Landscape Plan 35
3.4.8 Vegetation Management Plan 42
3.4.9 Utility Systems 42
3.4.10 Public Services and Utilities 43
3.4.11 Design-Related Mitigation Requirements from 2005 EIR 43
3.4.12 Required Approvals 44

Page

Chapter 4: Environmental Checklist for Addendum to the 2005 EIR 45

4.1 Explanation of Checklist Evaluation Categories 45

4.1.1 Where Impact Was Analyzed 45

4.1.2 Do Proposed Changes Involve New or Substantially More Severe Significant Impacts? 46

4.1.3 Do Any New Circumstances Involved New or Substantially More Severe Significant Impacts? 46

4.1.4 Any New Information of Substantial Importance Requiring New Analysis or Verification? 46

4.1.5 Do Previously Adopted 2005 EIR Mitigation Measures Reduce Impacts to a Less-Than-Significant Level? 47

4.2 Discussion and Mitigation Sections 47

4.2.1 Discussion 47

4.2.2 Mitigation Measures from the 2005 EIR 47

4.2.3 Conclusions 47

4.3 Introduction to the Analysis 48

Environmental Checklist 49

1. Aesthetics 49
2. Agricultural Resources 54
3. Air Quality 58
4. Biological Resources 71
5. Cultural Resources 94
6. Energy 103
7. Geology and Soils 105
8. Greenhouse Gases 115
9. Hazards and Hazardous Materials 120
10. Hydrology and Water Quality 129
11. Land Use and Planning 145
12. Mineral Resources 166
13. Noise 168
14. Population and Housing 186
15. Public Services 188
16. Recreation 195
17. Transportation/Traffic 197
18. Utilities and Service Systems 208
19. Mandatory Findings of Significance 213

Summary Findings of Checklist/Mitigation Measures 215

LIST OF FIGURES

Page

Figure 1 Site Location 11
Figure 2 Aerial View of Site and Surroundings 12
Figure 3 Existing Conditions on the Project Site 13
Figure 4 Illustrative Site Plan 15
Figure 5 Aerial Overview of Project 16
Figure 6 Cross-Section of Main Building 17
Figure 7 First Level Site Plan 18
Figure 8 Subterranean Level Garage Plan 20
Figure 9 Second Level Site Plan 21
Figure 10 Third Level Site Plan 22
Figure 11 Cross-Section of Memory Care Building 23
Figure 12 Memory Care Building Floor Plan 24
Figure 13 Affordable Apartment Building First Level Plan 26
Figure 14 Affordable Apartment Building Second Level Plan 27
Figure 15 Architectural Rendering of Main Building Entrance 28
Figure 16 Architectural Rendering of Main Building Dining Terrace 29
Figure 17 Architectural Rendering of Memory Care Building Entrance 30
Figure 18 Architectural Rendering of Affordable Apartment Building 31
Figure 19 Grading and Drainage Plan 33
Figure 20 Proposed Driveway Alignment 34
Figure 21 Illustrative Landscape Plan–Area A 37
Figure 22 Illustrative Landscape Plan–Area B 38
Figure 23 Detailed Planting Plan–Area A 39
Figure 24 Detailed Planting Plan–Area B 40
Figure BR-1 Biological Communities 75
Figure BR-2 Seasonal Wetland & Riparian Impacts & Mitigation Plan 83
Figure N-1 Acceptable Noise Levels ..... Appendix B
Figure N-2 Noise Measurement Locations 171
Figure N-3 Noise Levels at Noise Measurement Sites 172
Figure N-4 Preliminary STC Rating Recommendations for Windows and Doors 173

LIST OF TABLES

Page

Table 1 Comparison of Proposed Project to Previous Applications 9
Table 3-1 Estimated Daily Construction Emissions (pounds) 64
Table 3-2 Estimated Daily Project Operational Emissions (pounds) 65
Table 3-3 Estimated Daily Project Operational Emissions (tons) 65
Table 4-1 Summary of Biological Communities in the Study Area 74
Table 8-1 Estimated Operational Greenhouse Gas Emissions 117
Table 11-1 Countywide Plan Policies Applicable to the Project 147
Table 13-1 Summary of Short-Term Noise Measurement Data (dBA) 174
Table 13-2 Vibration Source Levels for Construction Equipment 178
Table 13-3 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA) 181
Table 13-4 Construction Equipment 50-Foot Noise Emission Limits 182

The Oaks Senior Living Community
Project Description

Chapter 1: Introduction and Project History

1.1 Project History and Context

The proposed project has its genesis back in the 1980s, with multiple iterations proposed in the ensuing years. Although Marin County is the Lead Agency for the current project—pursuant to the California Environmental Quality Act (CEQA)—the project site was within the sphere of influence of the City of San Rafael when development of the site was first proposed. In December 1983, Virginia Daphne and Edward Bacciocco, property owners of a 106-acre property located at the northwest corner of the intersection of Highway 101 and Lucas Valley Road, submitted an application to the City of San Rafael for a residential and commercial mixed-use development on the property. An Administrative Draft Environmental Impact Report (EIR) was prepared in 1986, but was not circulated for public review and comment. Because the project proposed at that time would have required annexation into the City and a General Plan Amendment, and the City was in the process of updating its General Plan, the proposed General Plan Amendment and EIR were put on hold by the City of San Rafael pending the outcome of its General Plan update process.

The subsequently adopted *San Rafael General Plan 2000* designated the project site for hillside/residential land use, allowing a density of 0.5 to 2.0 units per acre. This land use designation would allow a potential density range of between 53 and 212 residential units on the 106-acre site. In 1989, at the request of the County and residents of the unincorporated community of Marinwood, the City of San Rafael decided annexation of this property to the City could be waived, subject to certain conditions set forth in a joint City-County Memorandum of Understanding (MOU). The MOU established a mitigation fee for improvements of the Lucas Valley Road/Los Gamos Drive/Highway 101 freeway interchange, established a Joint Powers Agreement between the City and the Marinwood County Services District (Marinwood CSD) for the provision of mutual fire protection of certain areas of both the City and the Marinwood CSD, and stipulated that all public improvements would be designed and built to the City's standards or to a standard mutually agreed upon by the City and County, among other provisions.

1995 Application

Subsequently, in May 1995, the property owners submitted an application to Marin County for a Master Plan, Use Permit, and Tentative Subdivision Map, proposing to subdivide the 106.3-acre property into two parcels for future residential and office building development. A Draft EIR for the project was prepared and circulated for public review in September 1996. The project evaluated in that EIR included up to 71 single-family detached housing units and two office buildings providing a total of 94,400 square feet of office space. The project also included dedication of 52.9 acres of open space and 9.0 acres reserved for improvements to Lucas Valley Road/Los Gamos Drive/Highway 101 freeway interchange.

Before a Final EIR could be prepared, the processing of the EIR was suspended at the request of property owners in November 1996, who continued conducting geotechnical investigation of the site and developing a revised project design. The property owners submitted a revised application to the

County in April 1999, which the County deemed complete on July 26, 1999. The revised project still included subdivision of the property into two parcels, with Parcel 1 to include 15.3 acres reserved for eventual site development with a maximum of 28 detached single-family residences, 1.8 acres of public right of way, and 34.8 acres of open space, for a total of 51.9 acres. Parcel 2 would consist of 20.1 acres reserved for eventual development of a maximum 94,400 square feet of administrative/professional office development, 9.0 acres reserved for future interchange improvements to U.S. Highway 101, and 34.3 acres of open space, for a total of 54.4 acres.

2002 EIR

After the County conducted a public scoping session in January 2000, a Recirculated Draft Revised EIR for the modified project was circulated for public review on March 31, 2001, for a 45-day review period. Following the closure of the public review and comment period on May 14, 2001, in order to address concerns raised during public review by the public, the City of San Rafael, and County Planning Commissioners, the project sponsors agreed to submit alternative project design options for residential and affordable housing use in lieu of the proposed office buildings. Accordingly, In June 2002 the property owners, at the recommendation of the County Planning Director, submitted an optional design for an assisted living residential use In lieu of the proposed office use that would be compatible with the residential land use designation in the City's General Plan. This submittal also included an optional wetlands restoration plan providing off-site wetlands restoration and incorporating all of the other wetlands mitigation measures recommended in the Recirculated Draft Revised EIR.

The Final EIR submitted to the State Clearinghouse for public review on June 27, 2002 provided a "Master Response" that evaluated these options to the project at a similar level of analysis as the proposed project and determined that the options to the project would not result in any new or more severe significant impacts from those identified in the Draft EIR. The Final EIR Master Responses also incorporated additional detailed analysis of potential transportation and circulation, aesthetic, and energy impacts of the project and concluded that implementation of the project options would not result in any new or more severe significant impacts from those identified in the Draft EIR. Finding that only minor clarifications, additional information, and minor changes to the text of Final EIR were required to incorporate the project options, the County determined that recirculation of the EIR for additional public review was not required.

After extending the public review period for the Final EIR, on August 5, 2002, the Marin County Planning Commission directed staff to provide additional information to clarify the impact analysis and respond to environmental issues raised over the adequacy of the Final EIR, and continued action on the Commission's recommendation for certification of the Final EIR to a future date. The additional information requested included an update to the cumulative impact analysis to include new developments in the area and clarification of methodologies used in the traffic analysis. The additional information was presented in a Final EIR Response to Comments Amendment, and a notice of distribution and notice of a public meeting of the Planning Commission to consider recommendation for certification of the Final EIR were published in a newspaper of general circulation and distributed to members of the Planning Commission, Board of Supervisors, State Clearinghouse, State and local agencies and special districts, EIR commenters, and other interested groups and Individuals. On February 24, 2003, the Marin County Planning Commission conducted another public meeting on the project and recommended that the Board of Supervisors certify the Final EIR.

2003 Application

The project applicant submitted a revised application to the County on April 18, 2003 that incorporated the assisted living design option that was evaluated in the Final EIR and Final EIR Response to Comments Amendment. This proposal replaced the two office buildings, totaling 94,400 square feet, with a 94,400-square-foot, 150-unit assisted living facility, to be located on the site of the previously-proposed 80,000-square-foot office building. It designated the site of the previously-proposed 14,400-square-foot office building as a site for wetland mitigation purposes. The revised proposal also eliminated the previously-proposed roadway connection to Lucas Valley Road, instead providing access to the 28 future single-family lots via a proposed extension to Erin Drive. Access to the future assisted living facility would be provided by a private roadway extension of Marinwood Avenue at its current southern terminus, continuing south across Miller Creek. The previously-proposed Vesting Tentative Map was replaced with a proposed Tentative Map, which still divided the property into two lots.

Under the revised proposal, Lot 1 would reserve 15.3 acres for a maximum of 28 detached single-family residential lots, 1.8 acres of public right-of-way, 34.2 acres of open space, and 0.6 acres for freeway interchange improvements, for a total of 51.9 acres. Proposed Lot 2 would reserve 11.0 acres for a maximum 94,400-square-foot assisted living facility, 34.6 acres of open space, and 8.8 acres for freeway interchange· improvements, for a total of 54.4 acres. The assisted living component of the Master Plan included future development of a maximum 150-unit retirement community, with 75 independent living apartments with kitchens and 75 assisted living apartments, along with administrative and support services.

2004 Second Amendment to the EIR

A second Amendment to the Final EIR was prepared in 2004, and the Planning Commission again recommended that the Board of Supervisors certify the Final EIR at a public meeting it held on December 6, 2004. On January 11, 2005, following review and consideration of the information in the Draft EIR, Final EIR, Final EIR Response to Comments Amendment, Amendment to the FEIR, Final EIR Appendices, and EIR administrative record, the Board of Supervisors found that the amended application did not require recirculation of the EIR pursuant to Section 15088.5 of the *CEQA Guidelines* because the revisions did not result in significant new information, new significant environmental impacts, or a substantial increase in the severity of previously disclosed significant environmental impacts. By resolution, the Board of Supervisors certified the EIR at this January 11, 2005 meeting, but continued a decision on whether or not to approve the proposed project. However, by separate resolution, the Board approved the subdivision of the property into the two proposed parcels described above. As conditions of approval, the property was required to be annexed into the Las Gallinas Valley Sanitary District, and water service was to be extended to the site by the Marin Municipal Water District.

The EIR certified by the County in January 2005 was for the Mitigation Alternative addressed in the 2004 second Amendment to the Final EIR, which replaced the previous office development with a 94,400-square-foot assisted living facility. Consequently, the mitigation measures adopted with the certified EIR were applicable to and based on a proposed senior living facility. On this basis, the County has determined that an Addendum to the EIR is appropriate for the currently proposed senior living community.

The County filed a Notice of Determination on the EIR certification with the State Clearinghouse on January 25, 2005.

1.2 Environmental Review of Proposed Project

The *Oakview Master Plan, Use Permit, Vesting Tentative Map Final Environmental Impact Report*, certified by the Marin County Board of Supervisors on January 11, 2005 ("2005 EIR")*1*, evaluated the significant environmental impacts of development of the 106.3-acre project site with 28 single-family homes and a 94,400-square-foot, 150-unit assisted living facility. The project included a Tentative Map to subdivide the property into two lots of 51.9 acres and 54.4 acres, respectively. The project evaluated in the 2005 EIR is described in more detail in Chapter 2. In accordance with Section 15150 of the *CEQA Guidelines*, the 2005 EIR—including the November 2004 *Oakview Master Plan, Use Permit, Tentative Map Amendment to the Final Environmental Impact Report* ("2005 EIR Amendment")—are hereby incorporated by reference. Documents incorporated by reference are available for review at the following website: www.marincounty.org/envplanning.

Under Section 15164 of the *CEQA Guidelines*, a Lead Agency or Responsible Agency shall prepare an addendum to a previously certified Environmental Impact Report (EIR) if changes or additions to the project have occurred since certification of the EIR, but none of the conditions described in *CEQA Guidelines* Section 15162 calling for preparation of a subsequent EIR have occurred.

Section 15162(a) requires preparation of a subsequent EIR if one or more of the following conditions applies:

1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

    A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

    B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

    C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

[1] County of Marin Community Development Agency, *Oakview Master Plan, Use Permit, Vesting Tentative Map Final Environmental Impact Report*, State Clearinghouse No. 95063038, June 2002, certified January 11, 2005.

For the proposed THE OAKS Senior Living Community, the County has determined through preliminary environmental review of the proposed Project that there would be no new or substantially more severe significant impacts not already addressed in the 2005 EIR, nor would any of the other conditions set forth in Section 15162(a) apply. That is primarily because, as discussed in Chapter 3, below, the currently proposed assisted living facility would be smaller in overall scope than the 94,400-square-foot office building evaluated in the 2005 EIR—subsequently changed to a 94,400-square-foot assisted living facility in the 2005 EIR Amendment—and 28 detached single-family residential lots evaluated in the EIR. The current project would include a smaller number of independent and assisted living apartments (126 versus 150) than previously evaluated, and these apartments would result in the generation of far fewer vehicle traffic trips and their associated emissions of criteria air pollutants and greenhouse gases than the 94,400-square-foot office building evaluated in the 2005 EIR (and would also have fewer trips/emissions than the 150 senior apartments previously evaluated), and they do not have the potential to result in significant effects on the environment not already disclosed in the EIR. Based on the conclusions of the Environmental Checklist (Chapter 4, below), an Addendum to the 2005 EIR is warranted, and neither a Subsequent EIR nor a Supplemental EIR (pursuant to *CEQA Guidelines* Section 15163) is required.

The Environmental Checklist evaluates the CEQA checklist categories in terms of any "changed condition" (i.e. changed circumstances, project changes, or new information of substantial importance) that may result in a different environmental impact significance conclusion from the certified 2015 EIR and would require major revision of the 2015 EIR. As discussed in Chapter 4, the proposed changes that constitute the Project, in combination with other changed conditions, would not result in new or substantially more severe significant environmental effects requiring revisions to the 2005 EIR. The continued implementation of mitigation measures identified in the 2005 EIR that were previously adopted and made conditions of project approval would be necessary to avoid or reduce potential effects of the proposed project. These mitigation measures are identified, and their full, final, adopted text is provided, in Chapter 4, Environmental Checklist. The text of all adopted mitigation measures is provided in a Mitigation Monitoring and Reporting Program (MMRP), which is available for review at: www.marincounty.org/envplanning. In some cases, as a result of the current environmental review, minor changes to the adopted mitigation measures are recommended in Chapter 4, either to delete provisions that are no longer applicable to the current project, or to add supplemental requirements.

Neither CEQA nor the Marin County Environmental Impact Review Guidelines require a formal public review and comment period for an addendum. However, the 2005 EIR, 2004 EIR Amendment, and this Addendum are available for review during the hours of 8:00 am to 4:00 pm, Monday through Thursday, at the Marin County Community Development Agency at 3501 Civic Center Drive, Room 308, San Rafael, CA 94903, and on the Community Development Agency's website at: www.marincounty.org/envplanning. The proposed project plans are available online at: https://www.marincounty.org/depts/cd/divisions/planning/projects/lucas-valley/daphne-o-krestine-trust_the-oak_mp_dp_dr_p1547_sr.

Chapter 2: Summary of Project Evaluated in Prior EIR

2.1 Project Location

The project site that was the subject of the 2005 EIR was a 106.32-acre property located in unincorporated Marin County north of Lucas Valley Road and west of Highway 101, bordered by Miller Creek on the north), Lucas Valley Road on the south, U.S. Highway 101 on the east, and on the west by existing residential development along Erin Drive, Lisa Court, and Elvia Court. The site consisted of a

single undeveloped parcel (Assessor's Parcel Number 164-270-03) owned by Virginia Daphne and Edward Bacciocco. This 106-acre site included the 9.6 acres that comprise the project evaluated in this Addendum.

2.2 Description of Previous Project

As summarized in Section 1.1, the property owners proposed two previous iterations of the project in December 1983 and May 1995, prior to submitting an application in April 2003 for the project evaluated in the certified 2005 EIR. The project included requested approval of a Vesting Tentative Map to divide the site into two parcels, of 51.9 acres (Parcel 1) and 54.4 acres (Parcel 2), respectively.

Parcel 1 would be developed with 28 single-family residential homes on 15.3 acres, and 34.8 acres would be preserved as open space. The remaining 1.8 acres would be allocated for public right-of-way for the site roadways. Parcel 2 would have 20.1 acres allocated for administrative/professional office development and parking, along with 34.3 acres of open space, a portion of which would be reserved for proposed southbound ramps at the Highway 101/ Lucas Valley Road interchange. The office development would consist of an 80,000-square-foot building on 18.1 acres (Lot 30, Building A), and a 14,400-square-foot building on 2 acres (Lot 29, Building B), for a total of 94,400 square feet of office space. No specific uses for the office buildings were proposed.

In addition to the Vesting Tentative Map, the project required approval of a Master Plan, Precise Development Plan, and Use Permit.

The project evaluated in the 2002 Final EIR had the following objectives:

- Divide the existing 106.3-acre site into two parcels (Parcel 1: 51.9 acres; Parcel 2: 54.4 acres).
- Preserve the ridgelines as undeveloped open space.
- Preserve as many healthy, mature trees as possible.
- Retain 69.1 acres of the site as permanent open space.
- Establish a development program that includes 20.1 acres of administrative/professional office space with parking and landscaping, 15.3 acres of residential development, including 28 lots with roadway access.
- Create an internal circulation system that prevents through traffic.
- Establish a conservation easement at the rear of the residential lots.
- Develop a revegetation plan for the site that includes restoration of native grasslands and replacement of trees removed to allow development.
- Preserve, or enhance, the existing seasonal seeps and riparian forest to the maximum extent possible.
- Limit the site grading.
- Develop a residential subdivision that is visually compatible with the existing neighborhoods adjacent to the site.

The housing units on Parcel 1 would be built at the southwest end of the site, adjacent to existing residential uses. The largest residential lot would be approximately 36,240 square feet in size, the smallest would be about 18,080 square feet, and average lot size would be about 23,500 square feet. The houses would be stepped up or down slopes to minimize massing and obstruction of views from

adjacent buildings, with maximum heights of 30 feet above existing grades. Houses would have hip, gable, or shed roofs, used consistently throughout a structure. Exteriors could be composed of wood, stone, or stucco, with earth tone colors encouraged.

Access to 20 of the housing units would be from a new roadway off of Lucas Valley Road. An extension of Erin Drive would provide access to the remaining homes, terminating in a cul-de-sac. Access to the office development would be via an extension of Marinwood Avenue, which would be extended south across Miller Creek, requiring construction of a bridge or arched culvert across the creek to minimize possible fill and creek disturbance.

Four off-street parking spaces were proposed for each residential unit, including two spaces in an enclosed garage and two spaces located in the building setback area. Parking for the office development would include 320 spaces for the larger building and 58 spaces for the smaller building, for a total of 378 parking spaces.

The three open space parcels were to be dedicated in fee simple to a public agency, such as the Marinwood Community Services District (MCSD) or Marin County Open Space District (MCOSD). If dedicated to the MCSD or MCOSD, one of those agencies would be responsible for managing and maintaining the open space.

The grading plan was designed to be balanced as much as possible and thereby minimize the need for import of fill soil or export of excess soil for offsite disposal. For the office development and associated parking lots and access roads, the cut and fill quantities were estimated to be 26,220 cubic yards and 20,780 cubic yards, respectively, resulting in export of 5,400 cubic yards of soil for offsite disposal. The grading plan did not show grading of individual residential lots, but indicated that grading of the access roads to the residences would require 7,020 cubic yards of cuts and 6,320 cubic yards of fill, resulting in 700 cubic yards of excess soil.

The project included a Drainage Plan for the installation of new stormwater drainage facilities to convey storm runoff from the proposed residential and office uses to Miller Creek or to culverts under Highway 101. The facilities would be sized to accommodate flows from the 100-year storm, consistent with County standards, and would reduce the amount of water flowing toward the existing residential subdivision by collecting it in new stormwater drainage facilities. All of the proposed residential lots were situated upslope of existing roads, so their storm runoff would be directed to the roadways, which transport water via curbs and gutters to downstream storm drains. The design was intended to decrease the amount of water flowing to the existing interceptor ditch system behind the homes on Elvia Court, which did not meet the County's capacity standards at the time.

Drainage facilities for the office development would collect sheet flow from the hillside behind the buildings and transport it to a drainage system for the office parking lots. Collected water from the office development would be conveyed in culverts or vegetated swales to the existing culverts under Highway 101 or directly to Miller Creek.

The Master Plan that was part of the project evaluated in the 2002 Final EIR established development and architectural standards for the proposed office and residential buildings, including setbacks and building height limits. The office buildings were limited to a maximum height of 30 feet above natural grade, and were to be located in minor valleys to minimize their visibility from Highway 101. The residential units were also limited to a height of 30 feet, and front-, side-, and rear-yard setbacks were stipulated. The Master Plan also specified the building materials and roof types described above.

At the time of the 2002 Final EIR, the Marin County Zoning Code required new residential development of ten or more units to provide 15 percent of the units as affordable housing units or pay an in-lieu fee. The applicants proposed making the in-lieu payment to satisfy the affordable housing requirements.

2.3 Description of Revised Previous Project

The Final EIR Second Amendment published in November 2004 evaluated a revised project that was identified as a Mitigation Alternative. It was developed by the project applicant in response to comments received from members of the public during the public review period for the Final EIR. The revised project eliminated the direct connection to Lucas Valley Road of the previously proposed street providing access to 20 of the 28 housing units. Instead, all 28 housing units would be accessed by an extension of Erin Drive, off of Las Gallinas Avenue.

The revised project also eliminated the prior two office buildings totaling 94,400 square feet and replaced them with a single 94,400-square-foot building on the same site to provide an assisted living facility for seniors. A total of 150 residential apartments were proposed, including apartments with full kitchens and apartments without full kitchens. The revised project included a reduction in parking, from 378 spaces for the office development to 81 spaces for the senior living facility.

Other project changes included an increase in the landscaped berm area between the assisted living facility and Highway 101; a realignment of the access drive and bridge across Miller Creek in order to reduce the amount of grading required; and a dedication for public roadway purposes of approximately 9.4 acres in the southeast corner of the 106-acre property.

The revised project incorporated new noise mitigation measures, which are described in Section 3.4.11. Other aspects of the project remained the same as described in the Final EIR, including subdivision of the site into two parcels of 51.9 acres (Parcel 1) and 54.4 acres (Parcel 2).

Chapter 3: Description of the Proposed 2017 Project

3.1 Project Overview

Venture Senior Living, LLC, the Applicant, is proposing to develop a 126-apartment senior living community and six workforce housing apartments on a 9.6-acre vacant parcel located on the west side of U.S. Highway 101 between Lucas Valley Road and Marinwood Avenue, in unincorporated Marin County. Although the site is within the planning boundary of the City of San Rafael, it is outside and just north of the City limits. The proposed project would be developed in accordance with the *Oakview Master Plan* approved by the County in January 2005. Table 1 provides a comparison of current project to the project evaluated in the 2002 Final EIR as well as the project defined in the approved Master Plan following amendments to the original project.

The proposed senior community would consist of 126 assisted living and independent living residential rental apartments in two attached buildings. The 126 apartments would include 75 assisted living apartments and 51 apartments that could be used for either Independent Living or Assisted Living tenants, as the need arises. The 71,124-square-foot, two-story main building would provide 86 apartments that could be occupied by both assisted and independent living tenants. A basement area would provide an additional 4,813 square feet of floor area. An adjacent one-story, 22,130-square-foot memory care building would provide 40 assisted living apartments. The portion of the main building that is above grade, combined with the adjacent building, is slightly smaller than the building that was originally approved in the Master Plan. Depending on market demand, the mix of assisted living and independent living apartments may vary from time to time. The main building would provide a variety of

amenities, including dining room, game room, library/reading room, computer room, hair salon, and health services facility. A basement level would include a fitness center, wine tasting room, and theater.

The total floor area proposed for the entire project would be 104,144 square feet, resulting in a floor area ratio of 25 percent on the 9.6 acre lot.

Table 1

Comparison of Proposed Project to Previous Applications

Land Use	THE OAKS Proposed Project	Project Evaluated in 2002 Final EIR	Project Evaluated in 2004 2nd Amendment to the EIR
Office Development	None	94,400 square feet	None
Single-Family Residential	None	28 lots	28 lots
Senior Living Apartments	126 apartments 98,067square feet	None	150 apartments 94,400 square feet
Affordable Apartments	6 apartments 3,625 square feet	None	None

The project plan includes six affordable apartments that would occupy a separate two-story building of 3,625 square feet. These apartments would be restricted to persons with low or very low income and would be made available to employees of the senior community center, allowing them to walk to work. Any apartments not rented to employees would be made available as affordable housing apartments to the general public.

On-site parking facilities would be provided both as surface parking for 31 cars in front of the main building and a subterranean garage under the main building providing up to 55 parking spaces, along with storage areas for residents. The affordable apartment building would provide eight parking spaces in a ground-floor carport garage. Three additional surface parking spaces would be located adjacent to the building. Development of the project driveway would require construction of a bridge crossing over Miller Creek.

3.2 Project Objectives

The Project applicant has prepared the following statement of the Project objectives:

Marin County's residents have the highest average age of any county in California. The population of people is excess of 75 years is growing very rapidly, but there is far less suitable housing available for these people than is now needed or will be needed in the near future. The barriers to entry for new development in this County are exceptionally high, and THE OAKS is well on its way to addressing an

important portion of the need. THE OAKS is intended to be an architecturally special addition to the County created in the Frank Lloyd Wright tradition. It is designed to create minimal community impacts yet be an assisted living facility offering a very high quality of life to many Marin residents.

In summary, the goals are:

- Provide 126 high quality senior assisted living apartments
- Generate minimal community impacts
- Mitigate all significant environmental impacts
- Build an architecturally attractive addition to the County
- Conform with the approved Master Plan guidelines
- Build six on-site affordable workforce apartments
- Create construction and senior living facility operating jobs
- Develop a senior living community significantly better than was originally approved
- Preserve as many healthy, mature trees as possible
- Create an internal circulation system that prevents through traffic
- Balance the grading on site
- Develop a planting plan that includes native plant species

3.3 Project Location and Site Characteristics

The project site is located in the unincorporated community of Marinwood, in Marin County, just north of the City of San Rafael. As shown on Figure 1, the 9.6-acre site is situated on the west side of U.S. Highway 101 (U.S. 101) approximately 1,500 feet north of Lucas Valley Road and 2,200 feet south of Miller Creek Road/Marinwood Avenue. The site is located in the eastern portion of Marin County, within the city-centered corridor that extends along the western margins of San Francisco and San Pablo bays and flanks U.S. 101. The site is located on Assessor's Parcel Number 164-270-05.

The site consists of two areas: the primary area proposed for development with the senior community, and a narrower strip of land that would be developed with the long driveway providing access to the project from the southern terminus of Marinwood Avenue. This latter portion of the site is approximately 1,100 feet long and 90 feet wide, encompassing approximately 2.3 acres.

The project site slopes upward toward the west, with elevations ranging from about 62 feet above mean sea level (msl) on the eastern edge of the site to about 146 feet msl in the northwest corner. The concave slopes range from a gentle 16-percent (1:6) gradient to steeper 40-percent (1:2.5) slopes in the upper western portions of the site.

The site is in a natural, undeveloped state, and shows no signs of prior development. The majority of the site, including the portion proposed for development, supports non-native grassland habitat, as well as areas vegetated with native purple needlegrass. The upper slopes are occupied by coast live oak woodland. An aerial view of the site and surroundings is shown on Figure 2. Existing conditions on the site are depicted on Figure 3.

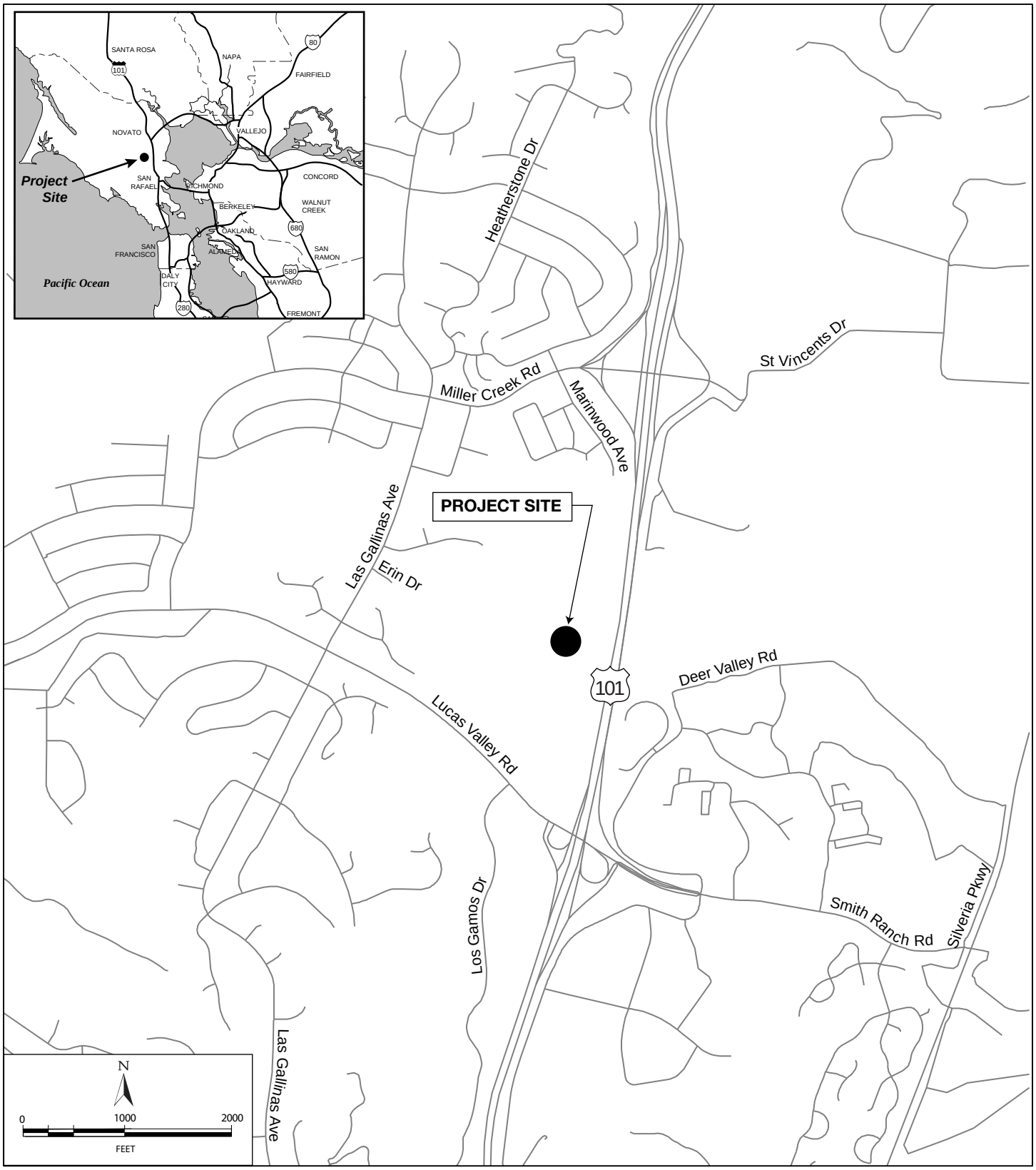


Figure 1

Site Location

Source: Douglas Herring & Associates

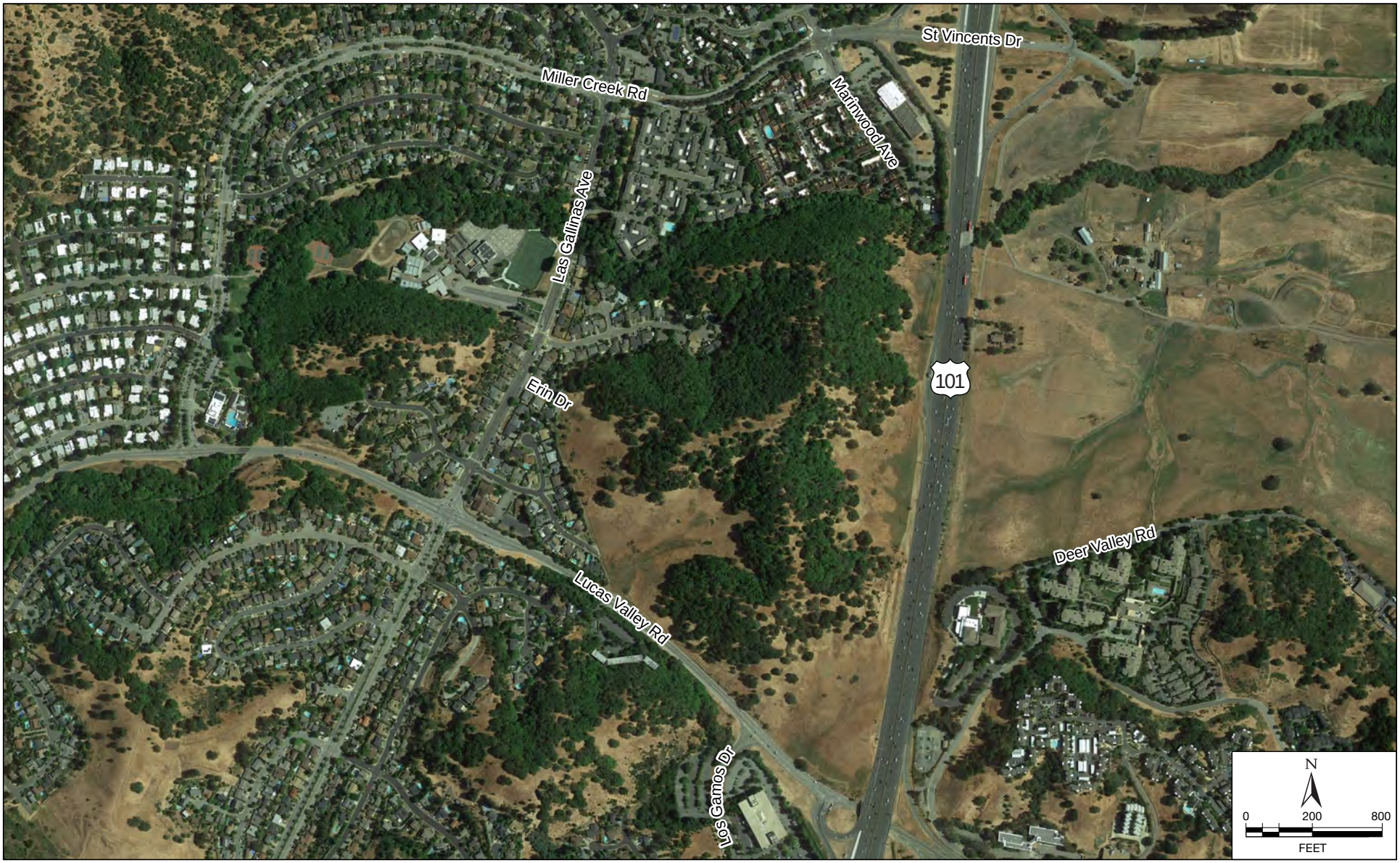


Figure 2

Aerial View of Site and Surroundings

Source: Google Earth Pro

a) Miller Creek in the Viciniity of the Proposed Bridge Crossing

b) The Proposed Main Development Area

Figure 3

Existing Conditions on the Project Site

Source: Douglas Herring & Associates

At the northern limit of the site, just south of where the project driveway would connect to Marinwood Avenue, is Miller Creek, a perennial stream flanked by riparian coast live oak woodland. This creek flows 9 to 12 months in a normal rainfall year. The western banks above the creek have been modified with trails and jump ramps by BMX bike users, and some trash litters this vicinity. Within the creek on either side are two old concrete footings that supported a former bridge. Remnants of an old gravel road are visible on the west side of the creek and in portions of the site south of Miller Creek running parallel to Highway 101.

Protected open space, consisting primarily of hilly coast live oak woodland, extends to the west and northwest of the proposed development area. This woodland separates the project site from the existing Marinwood subdivision of single-family homes located about 1,300 feet west of the site, though the closest homes at the end of Elvia Court are about 700 feet away on the west facing side of the hill separating the two development areas. In the northern portion of the site, condominiums on Majorca Court are located as close as 35 feet to the proposed driveway entrance to the senior community. The Marinwood Shopping Center, currently vacant except for the Marinwood Market, occupies the east side of Marinwood Avenue, about 500 feet north of the proposed site entrance.

3.4 Project Description

3.4.1 Residential Care Facility

As shown on the illustrative site plan (Figure 4) and aerial overview (Figure 5), the senior living community would be housed in two primary buildings, each described separately below.

Main Building

The central main building would be a multi-level building stepped into the existing hillside, with a footprint of 43,067 square feet. At the base of the hillside, the building would have a two-story façade, with a third story set back approximately 48 feet from the central front façade. The building would be partially cut into the hillside such that it would appear to be a two-story building at the rear of the building. Three stepped retaining walls near the rear of the building, ranging from 3 feet to 10 feet in height, would allow the building to nestle into the hillside and minimize its profile and massing. Figure 6 shows how the building would be cut into the existing hillside.

The main building would provide a total of 86 apartments that could be occupied by either independent living and assisted living tenants. The apartments would consist of a mix of studio, large studio, one-bedroom, and two-bedroom apartments, offered in a total of 14 different floor plans. As currently proposed, the main building would provide apartments ranging in size from 400 square feet to 900 square feet of floor area.

The first level, depicted on Figure 7, would have a reception lobby at the entrance to the main building, along with a variety of administrative, support, and public spaces, including a games room, library/computer room, and activity areas. This floor would also include a main dining room, an adjacent smaller private dining room, and kitchen. An outdoor dining terrace is currently proposed at the southeast exterior of the main building.

An interior courtyard would be located near the rear of Level 1, and apartments facing the courtyard would have a private terrace, while each upper level unit facing the courtyard would have a private deck.

The rear of Level 1—a basement level due to the hillside sloping upward toward the west—would provide a fitness center, with a room for fitness classes, a theater/media room, and a lounge, showers,

Figure 4

Illustrative Site Plan

Source: Dahlin Group

Figure 5

Aerial Overview of Project

Source: Dahlin Group

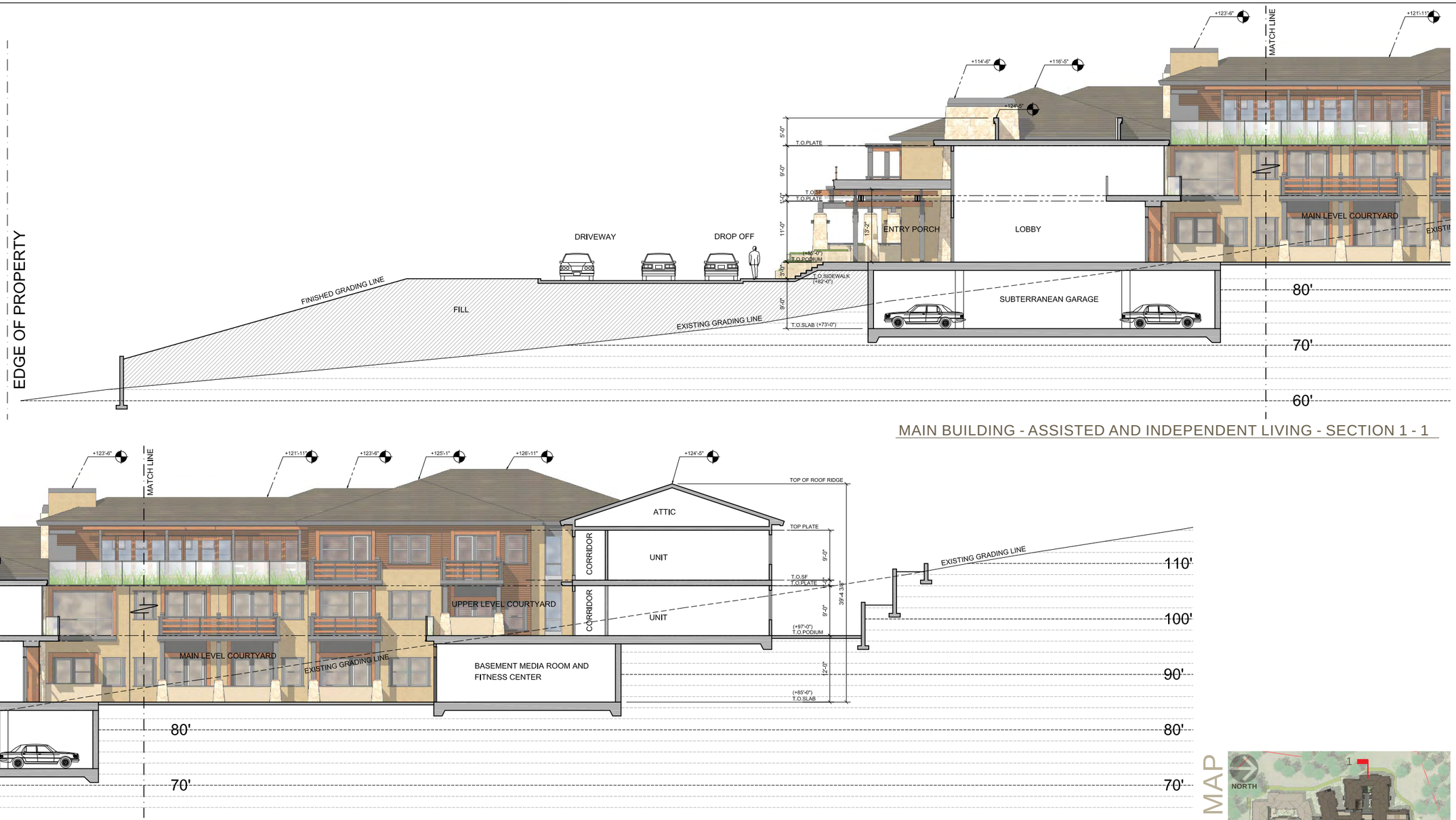


Figure 6

Cross-Section of Main Building

Source: Dahlin Group

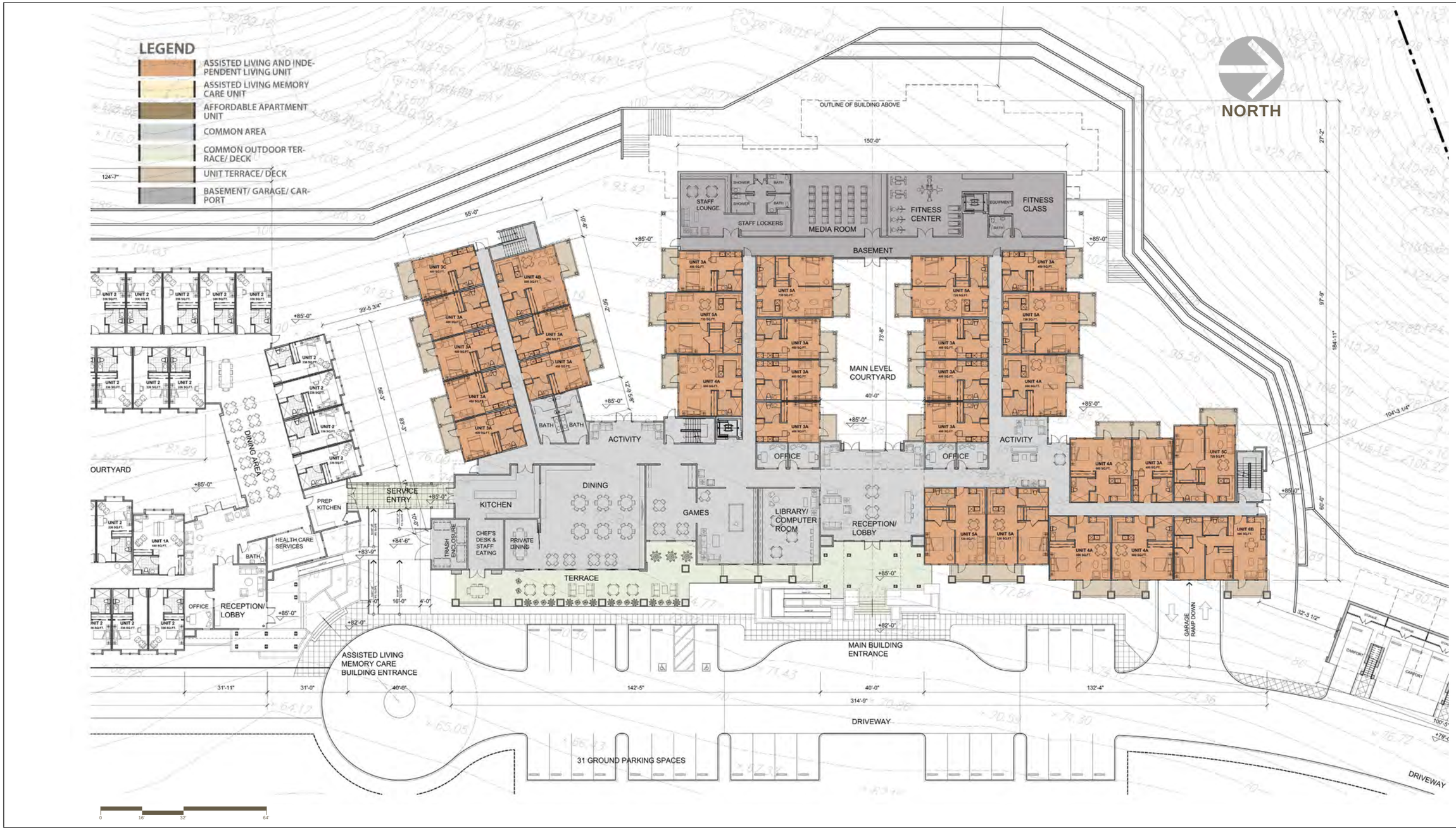


Figure 7

First Level Site Plan

Source: Dahlin Group

and lockers for staff. As shown on Figure 8, there would be a subterranean parking garage below the front portion of the main building. This garage, with an entry ramp located at the northeast corner, would provide 55 parking spaces, including two handicap-accessible spaces. The garage would also provide lockable storage areas for residents and bicycle parking for 10 bicycles.

Level 2 would be primarily dedicated to private living space, but would also provide activity areas off the main corridor, as shown on Figure 9. As currently proposed, a hair salon, health/wellness room, and other public spaces would be provided on Level 2. There would also be an upper level courtyard on Level 2 that would be set back toward the west from the Level 1 courtyard. Thus, the Level 2 courtyard would look over the Level 1 courtyard, as would the decks of the Level 2 apartments located adjacent to the Level 1 courtyard.

A third partial level of apartments would be set back toward the rear of the main building as it steps into the hillside. Although it is designated as the "second level rear plan" on the project plans, for clarity and ease of reference it is referred to in this discussion as "Level 3." The proposed floor plan is shown on Figure 10. In addition to apartments and other spaces, this level would provide a crafts room, accessing a deck and outdoor open space area for the community residents.

The main building would provide 71,124 square feet of floor area, including the private decks and patios, with an additional 4,813 square feet of basement space. The subterranean parking garage would consist of 19,756 square feet of building area. In part due to the sloped site, the height of the multi-level building would vary, but would have a maximum height of approximately 34 feet 11 inches, as measured from natural grade (29 feet 11 inches above finished grade). The proposed setbacks, from the exterior walls to the property lines, are as follows: 120 feet from the eastern (front) property line; 104 feet from the northern (side) property line; 99 feet from the western (rear) property line; and more than 300 feet from the southern (side) property line.

Memory Care Building

As shown on the site plan (Figure 3), a separate one-story memory care building would be located about 40 feet south of the main residential building, linked by a covered breezeway that would also be used as a service entrance. The main entrance would be located adjacent to a vehicle turnaround at the south end of the parking lot located in front of the main building. The 22,130-square-foot memory care building would provide 40 assisted living memory care apartments; as currently proposed, they would range in size from 336 square feet 505 square feet, with three different plan configurations of studio apartments.

Similar to the main building, this building would be cut into the existing hillside, though it would not step up with multiple levels. The cross-section depicted on Figure 11 shows the building in relationship to the existing hillside. The one-story building would be approximately 30 feet in height above natural grade, or about 20 feet above finished grade. The proposed setbacks, from the exterior walls to the property lines, are as follows: 53 feet from the eastern (front) property line; more than 300 feet from the northern (side) property line; 146 feet from the western (rear) property line; and 125 feet from the southern (side) property line.

As shown on the floor plan depicted on Figure 12, the building would be arrayed around a central landscaped courtyard. Interior apartments would look out on the courtyard. A reception lobby would be located at the entrance to the building, with administrative and support spaces located adjacent to or in proximity to the reception lobby. Other shared spaces in the building would include the dining room, activity/seating areas, and a health care services office. A prep kitchen would be located off the dining room and adjacent to the service entrance.

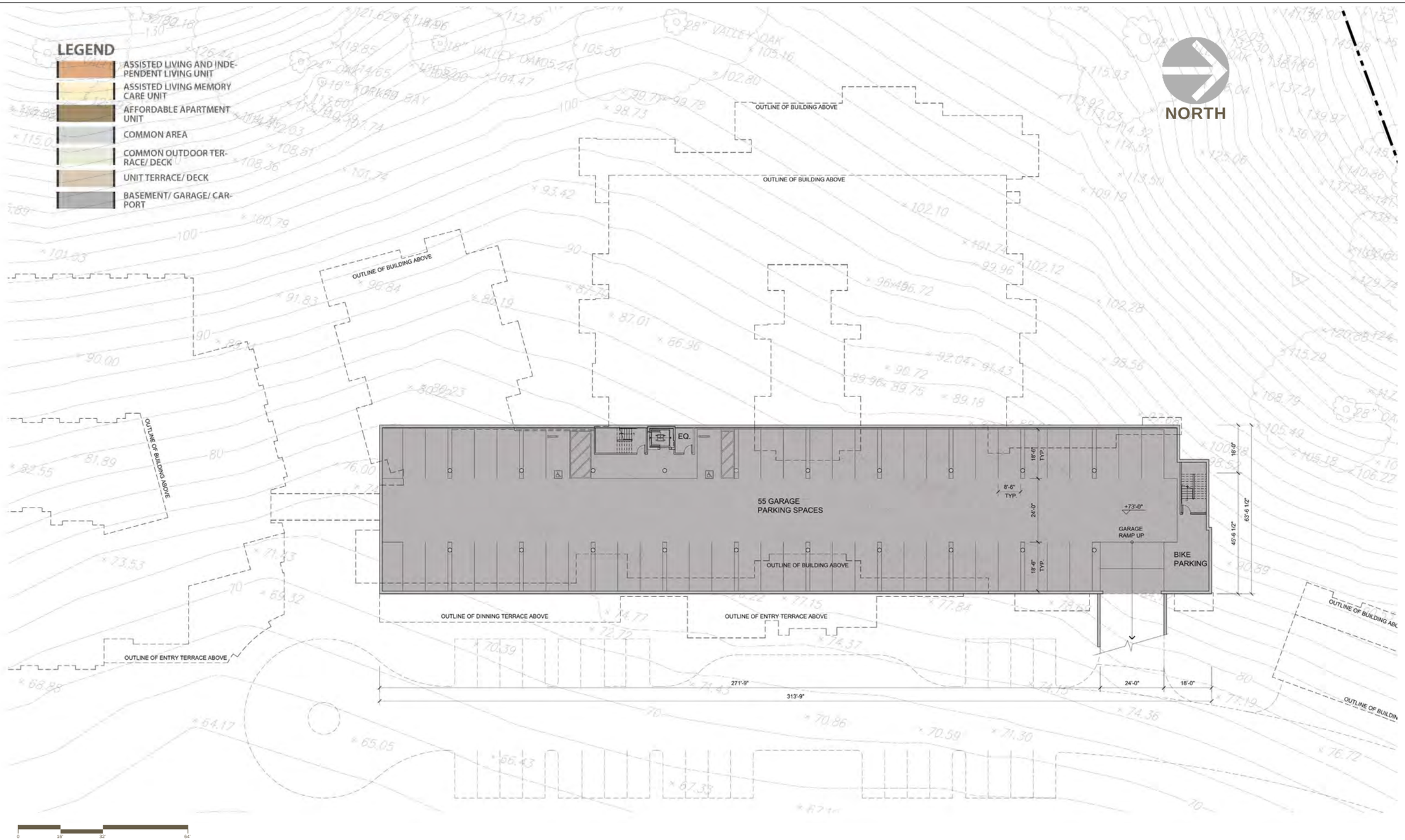


Figure 8

Subterranean Level Garage Plan

Source: Dahlin Group

Figure 9

Second Level Site Plan

Source: Dahlin Group

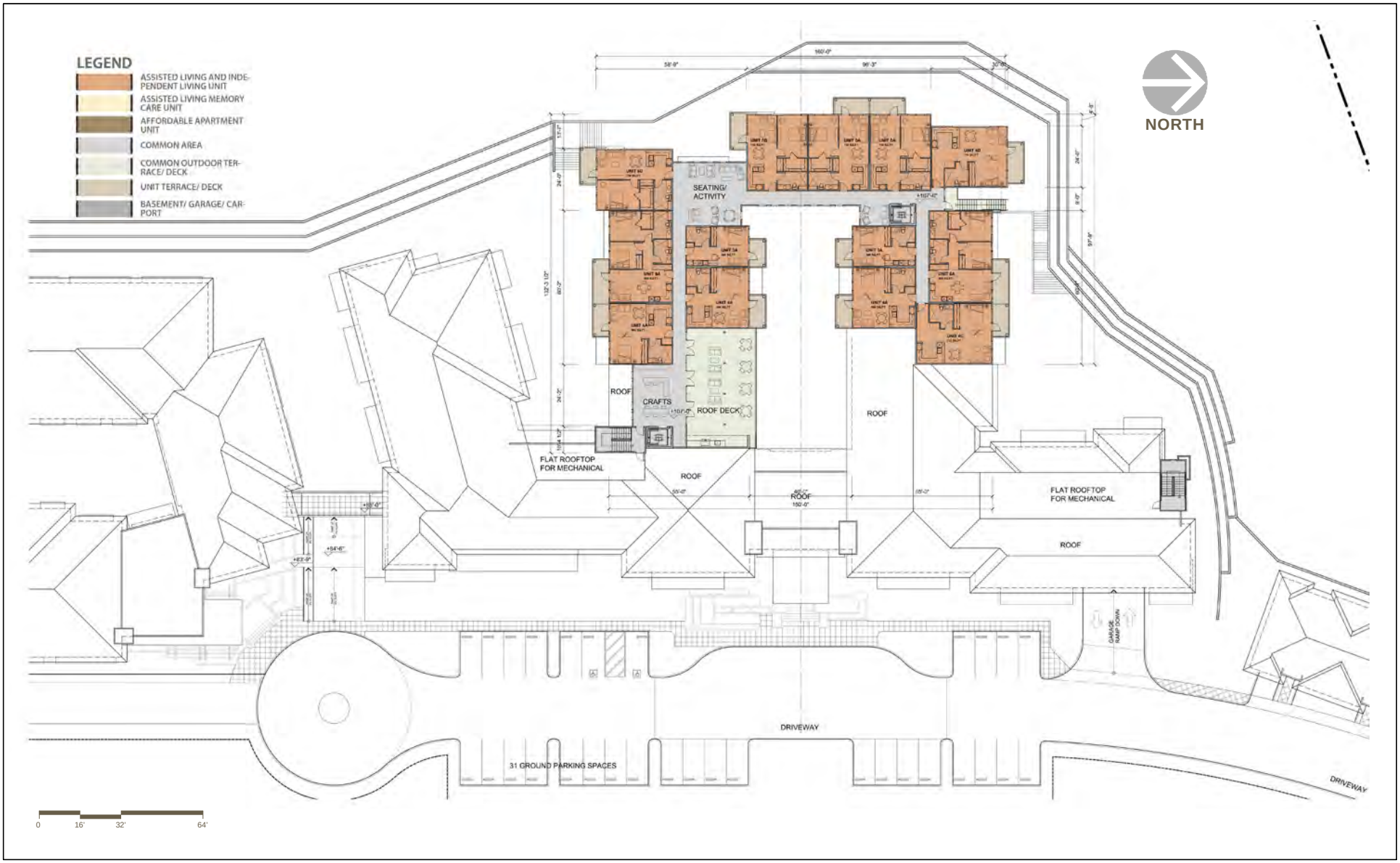


Figure 10

Third Level Site Plan

Source: Dahlin Group

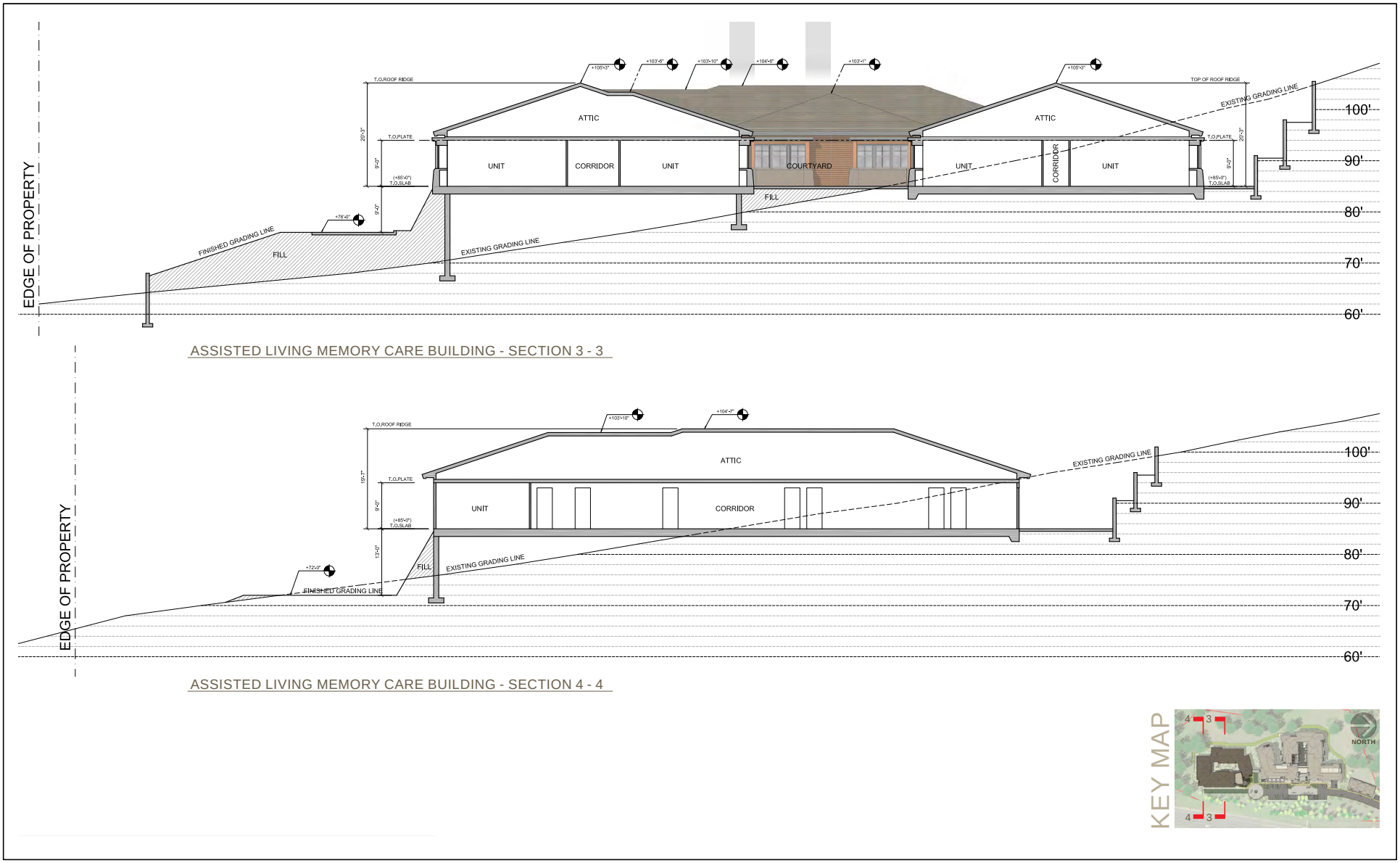


Figure 11

Cross-Section of Memory Care Building

Source: Dahlin Group

Figure 12

Memory Care Building Floor Plan

Source: Dahlin Group

3.4.2 Affordable Apartment Building

The applicant is also proposing to construct a separate 6,193-square-foot apartment building providing six affordable apartments that would be made available to employees of the senior living community. Any apartments not occupied by employees would be made available to the general public. The apartments would be restricted to persons with low or very-low incomes. The two-story building would have a 2,568-square-foot eight-car carport garage on the ground floor. The apartments would be located on the second level, encompassing 3,625 square feet of living area.

The affordable apartment building would be stepped into the hillside, and would have a maximum height of approximately 22 feet in height, as measured from natural grade (25 feet above finished grade). The proposed setbacks, from the exterior walls to the property lines, are as follows: 98 feet from the eastern (front) property line; 20 feet from the northern (side) property line; more than 150 feet from the western (rear) property line; and more than 400 feet from the southern (side) property line.

As shown on the floor plans (Figures 13 and 14), three pairs of apartments would each share a stairway leading to their apartments that would be located between their assigned parking spaces in the carport. All of the apartments would be one-bedroom apartments providing an average of 571 square feet of living area. A private outdoor deck would be located at the rear of each unit, accessed from the bedroom.

Large storage closets would be located at the rear of each carport. Three surface parking spaces located just north of the apartment building would provide guest parking and additional parking for residents.

3.4.3 Architectural Design

The project architect describes the architectural style of the project as a contemporary terraced California ranch style with a low profile, influenced by Frank Lloyd Wright's "plains period." Renderings of the project from different vantage points are shown on Figures 15 through 18. The well-articulated design utilizes stucco and composite wood building materials, with light-colored stone veneer-faced pillars supporting the trellis over the outdoor dining terrace as well as the second-story decks located along the front of the main building. The building materials and subdued natural earth tone colors have been selected to blend in with the existing natural environment.

The roofs would be covered with flat, brown concrete tiles with the appearance of wood shake shingles. Stained wood soffits under the roof eaves would provide a warm accent to the roofline. Exterior window and door trim would also be made from stained wood. Gray metal gutters would be faced with wood fascia boards. Over the entrance to both buildings would be metal canopies composed of gray powder-coated metal atop supporting wood trellises. The trellis above the dining terrace on the main building would also be fabricated of gray powder-coated metal, with canvas shades.

The proposed retaining walls would consist of a combination of stacked block walls (around the perimeter of the new bioswale, proposed on the front portion of the project site) and tan colored concrete walls (around the rear perimeter of the new buildings, as well as along the newly proposed access driveway). The proposed paving materials would include concrete driveway, beige colored integral concrete pathways and patio areas, and porcelain pavers at entryways and patio areas.

Although the massing of the affordable apartment building is not as articulated as the primary buildings, the massing on the front façade would be broken up by the three stairways that would punctuate the ground level and would feature vertical bays on the second level, each highlighted by simulated wood composite horizontal siding surrounding a rectangular opening to and providing natural light to the

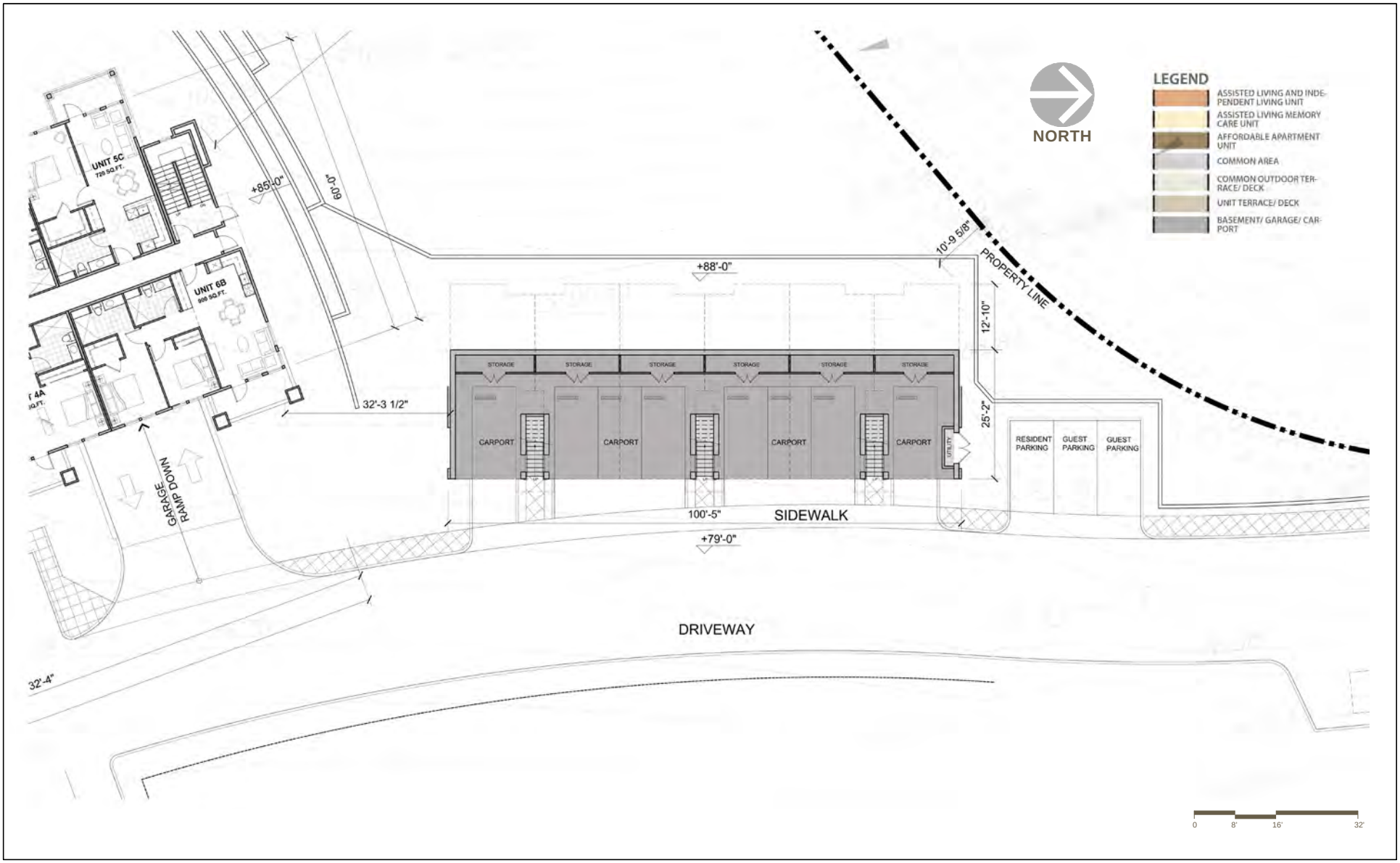


Figure 13

Affordable Apartment Building First Level Plan

Source: Dahlin Group

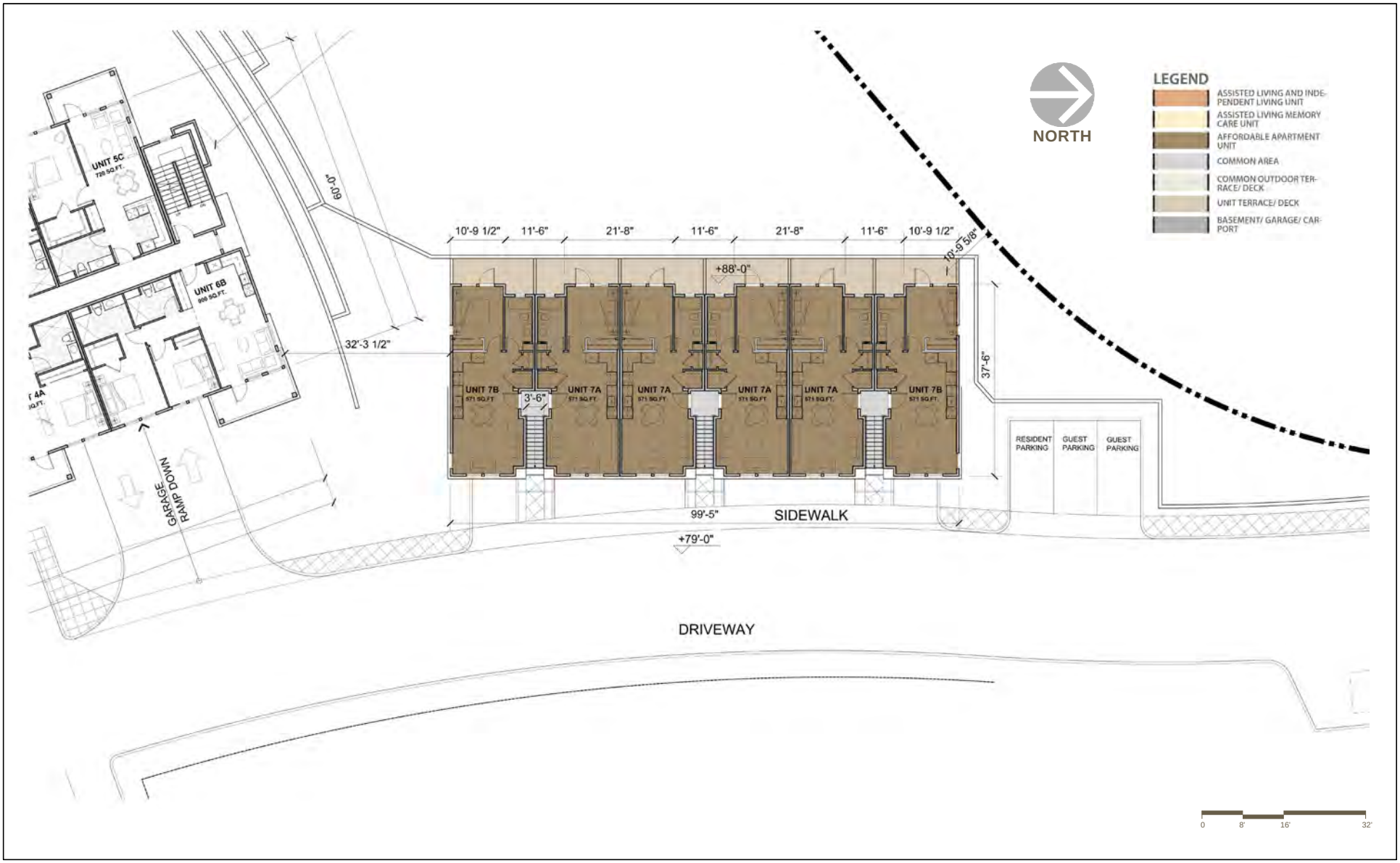


Figure 14

Affordable Apartment Building Second Level Plan

Source: Dahlin Group

KEY MAP

NORTH

MAIN BUILDING - MAIN ENTRANCE - ASSISTED AND INDEPENDENT LIVING

Figure 15

Architectural Rendering of Main Building Entrance

Source: Dahlin Group

Figure 16

Architectural Rendering of Main Building Dining Terrace

Source: Dahlin Group

ASSISTED LIVING MEMORY CARE BUILDING - MAIN ENTRANCE

Figure 17

Architectural Rendering of Memory Care Building Entrance

Source: Dahlin Group

AFFORDABLE APARTMENT BUILDING - ENTRY SIDE

Figure 18

Architectural Rendering of Affordable Apartment Building

Source: Dahlin Group

internal stairwell. The building materials and colors of the apartment building would match those of the main facility.

3.4.4 Site Grading

As shown on Figures 5 and 10, considerable grading is necessary to integrate the proposed buildings into the sloped hillside. However, the grading plan shown on Figure 19 indicates that there would be balanced grading on the site, with 15,300 cubic yards of cuts and 15,300 cubic yards of fill. Thus, there would be no generation of truck trips for import or export of soil during project construction.

The earth excavated to accommodate the proposed buildings, including the basement and parking garage under the main building, would be used to build up the lower portions of the site. A fill slope would be created to the east of the memory care building and to the east of the driveway and parking areas in front of the main and affordable apartment buildings. It would have a maximum slope of 3:1 (horizontal: vertical) and would be densely landscaped for privacy screening and to reduce noise exposure from U.S. 101. Retaining walls are proposed behind the new buildings, which would range in height from 1 to 6 feet.

3.4.5 Site Access, Circulation, and Parking

Regional access to the site would be provided by U.S. Highway 101 via the St. Vincent Drive interchange located about 1,000 feet north of the site. As shown on Figure 20, local access to the project would be from a long driveway that would start at the southern terminus of Marinwood Avenue.

A new clear-span bridge would be constructed across Miller Creek, a small perennial stream that crosses the north end of the property prior to passing under U.S. 101. The bridge would be anchored on cast-in-place concrete piers outside of the stream banks on each side. Steel girders and beams would provide support to the concrete road bed. The bridge has been designed to provide two feet of freeboard above the 100-year flood elevation.

From the bridge crossing, the roadway would curve around the base of the wooded hillside on the northern half of the property, lead into the developed portion of the site, and terminate at a circular turnaround in front of the entrance to the memory care building. The paved asphalt driveway with concrete curbs would be 24 feet wide, with a single travel lane in each direction. It is currently anticipated that the road bed would consist of 3 inches of asphalt over 12 inches of aggregate, though the exact thickness could be modified during final design.

A 4-foot-wide concrete sidewalk would extend along the west side of the driveway for its full length. North of the proposed bridge crossing, there would be sidewalks on both sides of the driveway, 4 feet wide on one side and 5 feet wide on the other. Where necessary due to the slopes, concrete retaining walls would be placed uphill and/or downhill of the entrance drive. The downhill walls would be set back 2 feet from the roadway and the uphill walls would be set back 1.5 feet from the sidewalk. The proposed retaining walls along the new access driveway would range in height from 4 to 13 feet.

Although the alignments and design have not yet been determined, pedestrian and bike paths would be constructed adjacent to Miller Creek and across the project site, connecting with a future trail across the open space located west of the site that is owned and managed by the Marinwood Community Services District (MCSD) (this property was part of the original 106-acre project site discussed in Chapter 1, subsequently deeded to the MCSD).

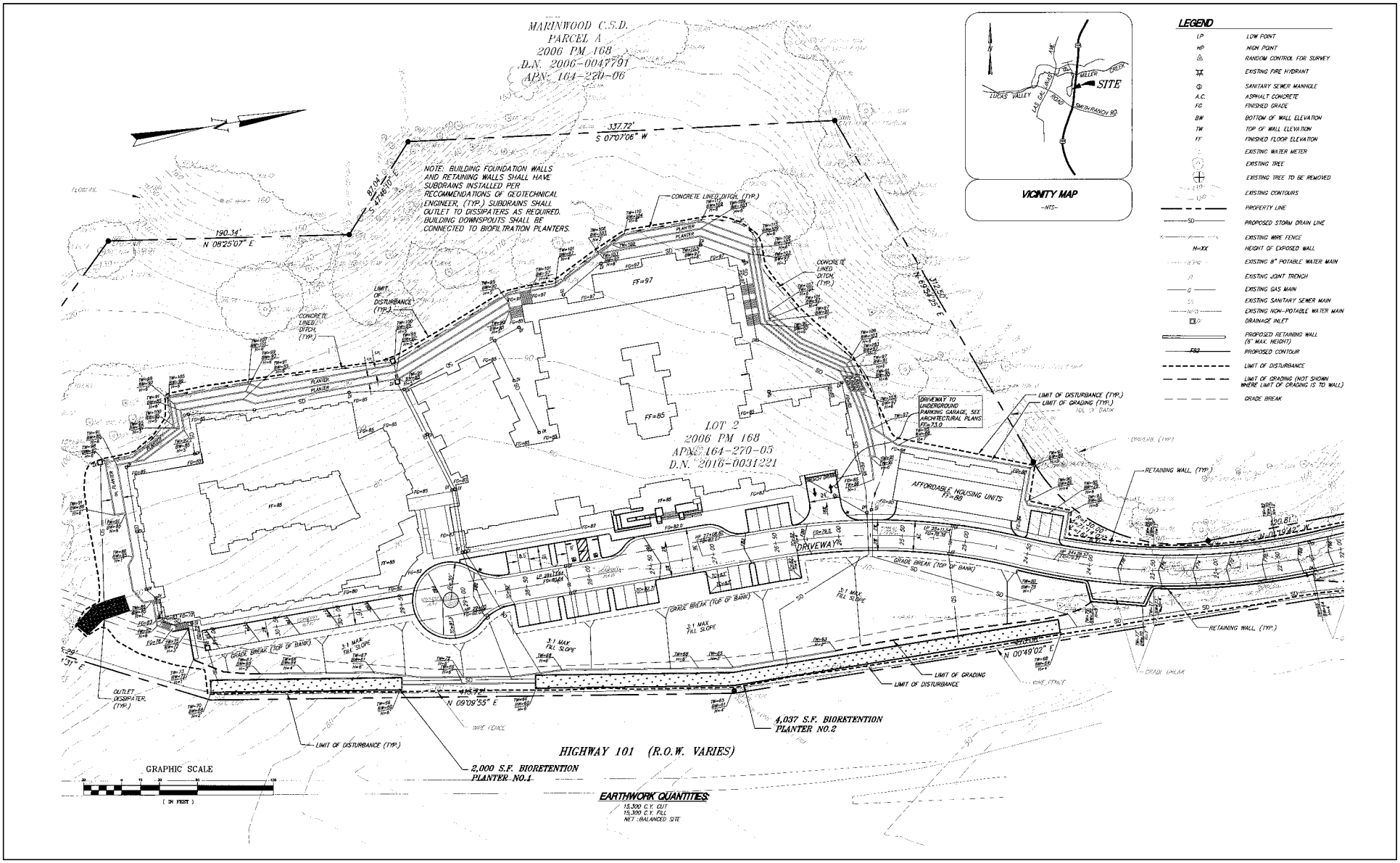


Figure 19

Grading and Drainage Plan

Source: Dahlin Group

Figure 20

Proposed Driveway Alignment

Source: rhaa

As the entrance drive approaches the first building, the affordable apartment building, the roadway would remain at 24 feet as it extends further into the developed portion of the site, reaching a maximum width of 36 feet with the drop-off lane in front of the entrance.

The entrance drive would also widen into a drop-off lane in front of the entrance to the main building. Right-angle parking spaces would be located along both sides of the driveway in front of the main building, providing a total of 31 parking spaces, including two handicap-accessible spaces. The driveway would also provide access to the ramp, located at the northeast corner of the main building, into the subterranean parking garage, which would provide an additional 55 parking spaces.

3.4.6 Stormwater Collection and Treatment

In accordance with San Francisco Bay Regional Water Quality Control Board regulations, discussed in Section 9, Hydrology and Water Quality, of the attached Environmental Checklist, the project would be required to capture and treat on site all stormwater runoff from the project buildings and pavements. To achieve this, the project engineers have divided the site into six drainage management areas (DMAs) and calculated the required treatment capacity for each area, which range in area from 8,650 square feet to 50,625 square feet. Collectively, the DMAs would require a total of 6,982 square feet of bioretention area to provide for natural treatment of the site's stormwater runoff. The proposed bioretention basins would exceed this requirement, providing 7,115 square feet of bioretention areas.

Runoff from building roofs would be captured by gutters and downspouts, while stormwater from the pavements would be captured in catch basins. Buried pipes would carry the captured stormwater to one of five landscaped open bioretention basins. The two largest areas, covering 2,000 square feet and 3,600 square feet, respectively, would be located at the base of the fill slope in front of the project buildings, while the others would be placed along the east side of the entrance driveway. Retaining walls ranging from 2 to 6 feet in height would surround the two bioretention basins located in front of the project buildings.

All bio-retention areas would be underlain by 18 inches of sandy loam, which would be underlain by at least 12 inches of Class II base rock. Perforated pipes would be positioned within the rock layers to collect the treated stormwater and convey it to a storm drain that would be installed parallel to and downslope of the site driveway. Stormwater would flow north in this storm drainage pipe and would be discharged into Miller Creek about 200 feet south of the proposed bridge. Water from Miller Creek discharges into the marshlands and mudflats of San Pablo Bay, located about 2 miles east of the project site.

Some subsurface slope runoff would be captured by subdrains at the base of retaining walls, and would be discharged to the biorention areas. Surface drainage systems would also be installed to prevent hillside runoff from collecting behind the project buildings. These systems would include perimeter foundation drains, slab underdrains, and back-drainage behind retaining walls. Concrete-lined drainage swales would be placed across the tops of cut banks to intercept sheet flow and minimize slope erosion. Collected hillside runoff, which would not require treatment in a biorention area, would be discharged into an energy dissipater at the south end of the site. It would consist of a 4-foot-thick layer of light class rock held in place with No. 4 rebar anchored 3 feet into firm soil. Storm drain pipes would discharge into a 90-degree elbow perforated pipe buried in the rip-rap.

3.4.7 Landscape Plan

The proposed project has been designed and landscaped to take advantage of and augment the existing natural conditions on and adjacent to the site. The development footprint has been placed to minimize

the need for removal of the many mature native trees on the site. Nearly all of the trees proposed for removal in order to accommodate the project, 50 in total, are located in or near the riparian zone around the proposed bridge crossing of Miller Creek. Forty-eight trees would be removed in this area, 19 of them within the defined riparian zone. The trees would be replaced at more than a 4-to-1 ratio; a total of 208 new trees would be planted, 99 of them native trees, and 36 of them oak trees. A variety of non-native tree species are proposed in the landscape plan, such as Autumn Blaze maple (*Acer x freemanii*), Japanese crabapple (*Malus floribunda*), Swan Hill fruitless olive (*Olea 'Swan Hill'*), and London plane tree (*Platanus x Acerifolia 'Bloodgood'*). More details are provided below, and a complete list of proposed trees and other plants is provided in Appendix A The trees in the vicinity of the proposed buildings would generally be preserved, including two massive valley oak (*Quercus lobata*) trees growing adjacent to the rear corners of the main building.

Site Landscaping

The overall landscaping plan is shown on the illustrative landscape plans shown on Figures 21 and 22, while the more detailed planting plans are shown on Figures 23 and 24. As depicted on the plans, the entire site frontage would be screened from view by passing motorists on U.S. 101 by closely spaced native trees planted along the eastern edge of the entrance drive and front parking area, and in front of the memory care building. Along the driveway, pairs of California live oak (*Quercus agrifolia*) trees would be interspersed with trios of Pacific madrone (*Arbutus menziesii*) trees.

A greater concentration of California live oaks would be planted in front of the main project building, with Pacific madrones packed more closely around them. With Pacific madrones reaching a height of 40 feet and California live oaks growing up to 60 feet tall, with canopy spreads of 40 to 50 feet, these trees would provide substantial screening at maturity, and would also serve to absorb noise and air pollutants generated by traffic on U.S. 101. Lower-growing California buckeye (*Aesculus californica*) trees would be planted downslope of the live oak and madrone trees. These trees reach a height at maturity of up to 30 feet.

The landscape plan has been designed around four types of planting zones, with some limited turf areas constituting a fifth zone. The Pacific Madrone and California live oak trees described above would be located in a Specialty Planting Zone that would feature California native species, with some adapted plants. The areas downslope of this zone, around the uphill perimeter of the proposed development area, and on the uphill side of the entrance drive would be located in a Renaturalization Planting Zone that would be planted exclusively with species native to Marin County or the Bay Area. Similar to the Specialty Planting Zone, a Transition Planting Zone would be planted with California native and adapted plant species. The bioretention areas would be in a Stormwater Planting Zone.

In addition to the California buckeye trees, the Renaturalization Planting Zone extending along the site frontage would be planted with shrubs including blue blossom Ceanothus (*Ceanothus thyrisflorus*) and toyon (*Heteromeles arbutifolia*). Grasses and perennials in this zone would include California brome grass (*Bromus carinatus var. carinatus*), foothill sedge (*Carex tumulicola*), tufted hairgrass (*Deschampsia cespitosa*), and California fescue (*Festuca californica*), among others. A complete list of plants in this and the other zones is provided in Appendix A.

Cream-colored concrete planter boxes landscaped with species from the Specialty Planting Zone (labeled as Garden Planting Zone in Appendix A) would flank the building entrances. Potential plants could include star magnolia (*Magnolia stellata 'Royal Star'*), white western redbud (*Cerclis occidentalis*), sea jade New Zealand flax (*Phormium 'Sea Jade'*), purple lantana (*Lantana montevidensis*), Berkeley sedge (*Carex divulsa*), and tufted hairgrass (*Deschampsia cespitosa*), among others.

Figure 21

Illustrative Landscape Plan - Area A

Source: rhaa

Figure 22

Illustrative Landscape Plan - Area B

Source: rhaa

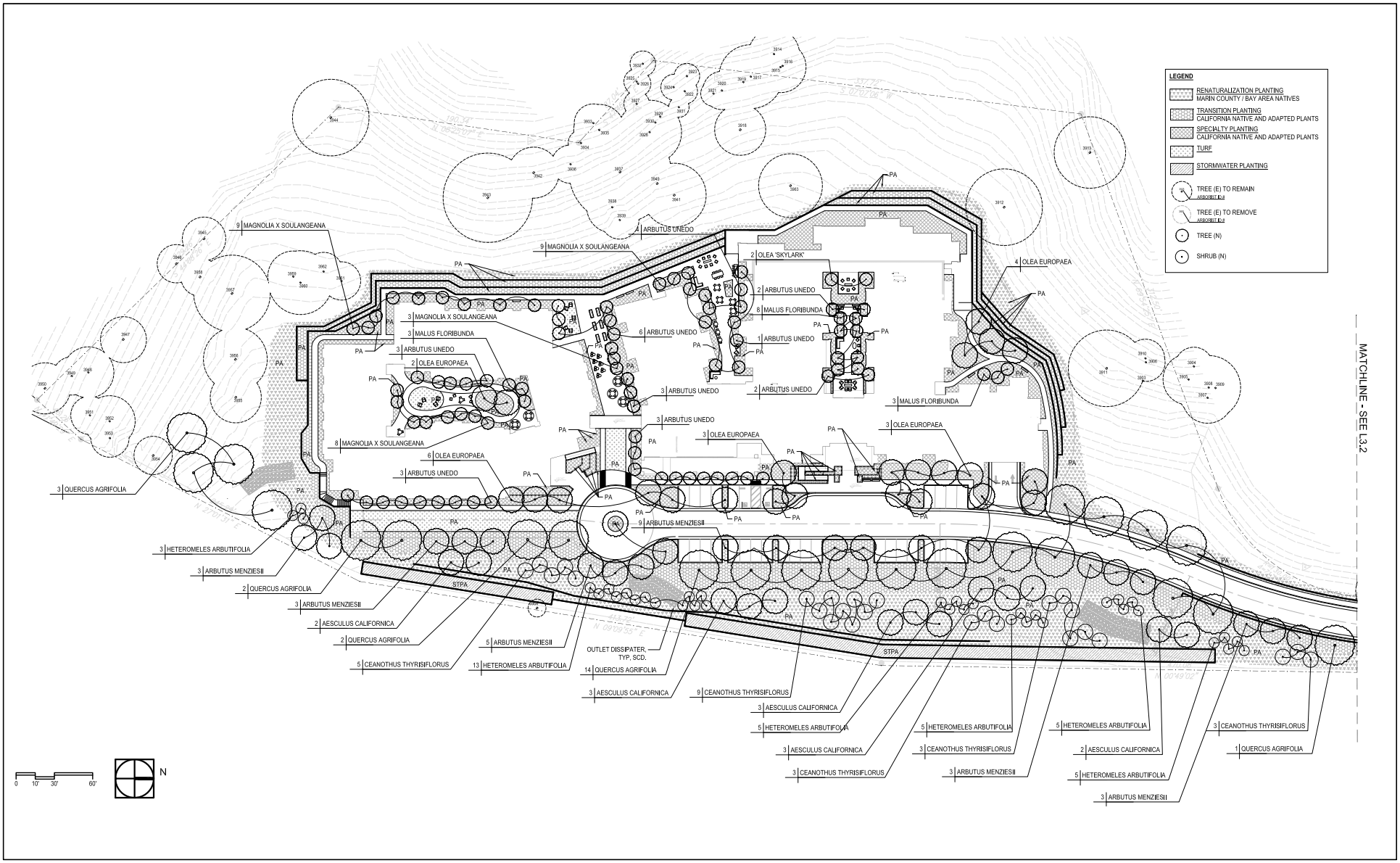


Figure 23

Detailed Planting Plan - Area A

Source: rhaa

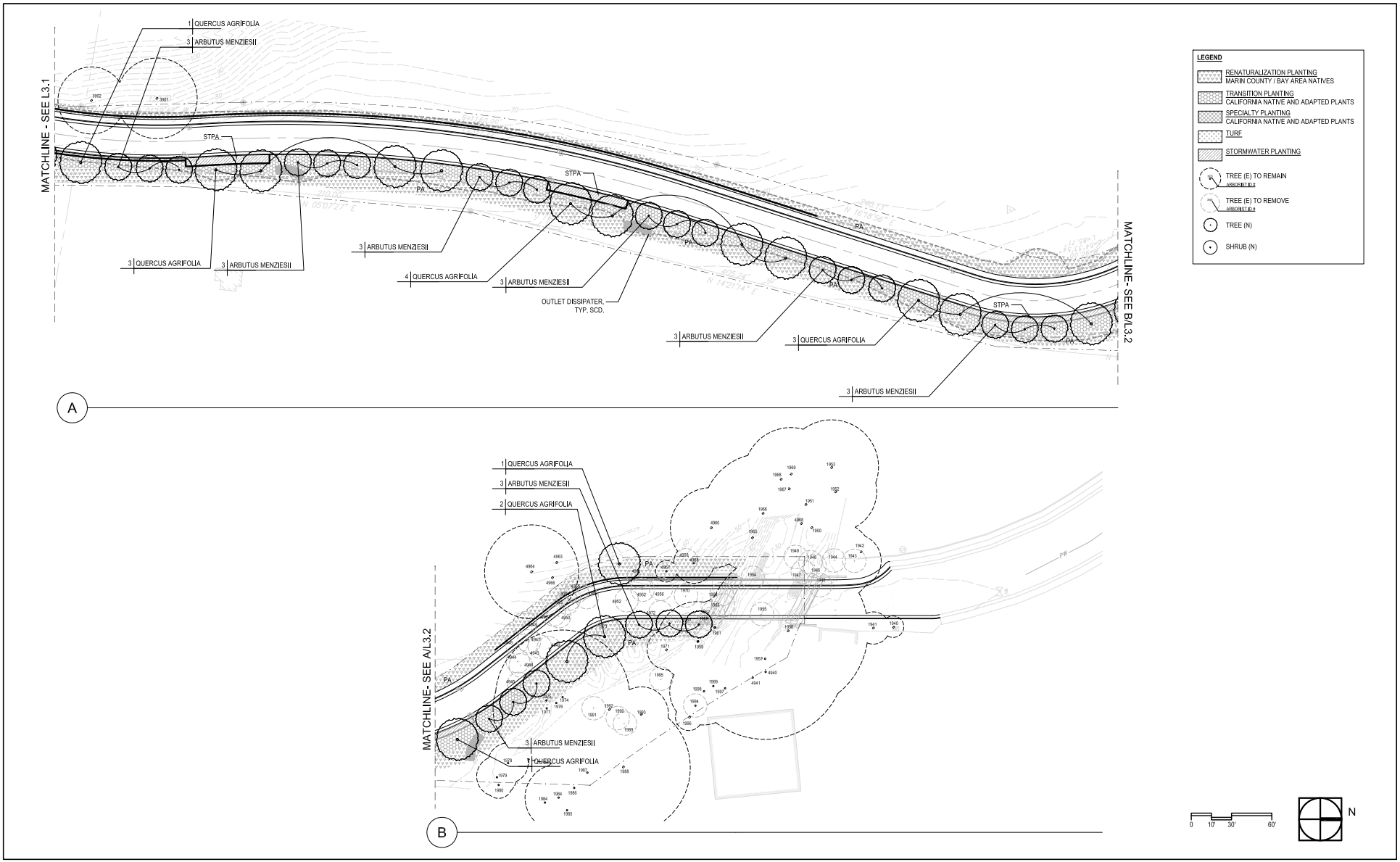


Figure 24

Detailed Planting Plan - Area B

Source: rhaa

Interior Landscaping

Landscaped interior courtyards would provide open space areas for residents to exercise, gather in conversation, have drinks, and eat meals. Four large courtyards would be developed, including a courtyard-like space between the main building and the memory care building.

A large central courtyard would be located on the first level of the main building. The courtyard would be paved with specialty paving stones and the perimeters would be planted with trees and other plants. Areas of lounge seating would be placed throughout the courtyard, and one such area on the east side of the courtyard would feature a fire pit. The tree species that would be planted in the courtyard would include dwarf strawberry tree (*Arbutus unedo 'Compacta'*) and Japanese crabapple (*Malus floribunda*).

A courtyard at Level Two of the main building would be set back from (toward the west) and overlook the larger courtyard on the first level. This smaller courtyard would feature dwarf olive trees (*Olea 'Skylark Dwarf'*).

Combined, the two central courtyard levels would provide 3,045 square feet of interior open space, landscaped with plants from the Specialty Planting Zone. The more southerly courtyard in the main building would have 3,075 square feet of space, while the courtyard in the memory care building and the outdoor space located between the two buildings would have 4,404 square feet and 3,480 square feet of space, respectively.

Irrigation

All of the exterior and courtyard landscaping would be watered by an automated irrigation system regulated by a controller. All plantings in the Transition and Specialty planting zones would be irrigated by subsurface or on-surface drip or bubblers, while the bioretention areas would be irrigated by microspray. Turf areas would be watered by a high-efficiency rotary spray. Renaturalization Planting Zones would have temporary irrigation during the establishment period; once they are successfully established they would be irrigated by natural rainfall only. The irrigation system would be designed to meet or exceed the water-efficient landscaping requirements of the Marin Municipal Water District as well as those contained in the State Model Water Efficient Landscape Ordinance. The project will not be permitted to exceed a Maximum Applied Water Allowance that will be calculated for the project.

Bioretention Areas

The bio-retention areas that would be created to treat on site all stormwater runoff from the project buildings and pavements, described above, would be planted with appropriate water-tolerant species, including California gray rush (*Juncus patens*). A detailed planting pallet for the bio-retention areas has not yet been developed.

Lighting

Nighttime illumination of the site would be provided by a variety of downward-directed fixtures intended to minimize offsite glare. The outdoor walkway extending along the northern and eastern perimeters of the two main buildings would be lit by recessed downlights embedded in walls, stairs, and ramps. The fronts of the two buildings would be lit by pedestrian light bollards in steel fixtures approximately 2 feet tall, spaced at approximately 12-foot intervals. Recessed lights wall-mounted lights would provide additional illumination at the building entrances and in the outdoor patio at the front of the main building. The courtyards in both buildings would be lit by garden light bollards in steel fixtures

approximately 8 inches tall, spaced at intervals of 8 to 13 feet. Wall-mounted light fixtures at the ends of the courtyards would provide additional illumination.

The parking areas and vehicle turnaround in front of the main building would be lit by parking lot lights mounted on powder-coated steel horizontal arms extending from powder-coated steel poles. The entrance drive leading to the developed portion of the site would be lit by roadway lights mounted on powder-coated steel poles, spaced at approximately 100-foot intervals.

3.4.8 Vegetation Management Plan

The proposed project includes a Vegetation Management Plan intended to reduce the risk of wildfire at the site, which has a Moderate hazard assessment rating, based on Marin County Fire Department's Fire Protection Standard 220 Hazard Assessment Matrix. The hazard assessment factors in site characteristics such as degree of slope, slope orientation/exposure, and type of trees and other vegetation present on the site. The assessment for the project states that the site has east-facing slopes averaging 19 percent, primarily vegetated with native annual grasses surrounded by oak woodland. Riparian habitat comprised mostly of California bay laurel (*Umbellularia californica*), white alder (*Alnus rhombifolia*), and coast live oak (*Quercus agrifolia*) trees surrounds the proposed bridge crossing of Miller Creek and the northern portion of the proposed entrance drive.

The proposed Vegetation Management Plan requires that a 100-foot buffer of defensible space be maintained around the project buildings, in excess of the defensible space required by Fire Protection Standard 220. This will include pruning the existing trees within the defensible space zone; removal of dead plants, dead tree limbs, and dead and downed material; and yearly mowing of the grasses growing on the hillside site, among numerous other provisions in the Plan. There are 19 existing trees located within the recommended defensible space buffer, most of them valley oaks, with some coast live oaks and one California bay.

The Vegetation Management Plan also requires maintenance of a Fire Apparatus Clear Zone (FACZ) to extend 10 feet horizontally from all roadways and driveways. All vegetation within the FACZ must be fire resistant, with low surface-to-volume ratio and low concentration of volatile oils. Grasses within the FACZ must be cut to a height of less than 4 inches from June 1st to November 1st, or the onset of seasonal rains. Tree canopies extending over the roadway must be maintained with at least 15 feet of vertical clearance over the roadway and should not meet opposing canopy. These requirements will be especially critical in the riparian habitat flanking Miller Creek and the proposed bridge crossing.

3.4.9 Utility Systems

Potable water would be supplied to the project by a 6-inch pipe that would connect with an existing 8-inch water main located in Marinwood Avenue. Similarly, an existing non-potable water line would be tied into at the same location and extended to the proposed development area; this water supply would be used for landscape irrigation. A 6- or 8-inch sanitary sewer line would tie in to the existing sanitary sewer in Marinwood Avenue. All utility lines would be buried under the entrance driveway leading to the project buildings.

As previously described, stormwater runoff from building roofs pavements would be captured conveyed in buried pipes to one of five bioretention areas. Water treated in these basins would discharge into Miller Creek.

3.4.10 Public Services and Utilities

The proposed project would be served by the following service and utility providers:

- Marinwood Fire Department (MFD)
- San Rafael Fire Department (SRFD)
- Marin County Sheriff's Department (MCSD)
- California Highway Patrol (CHP)
- Marin Municipal Water District (MMWD)
- Las Gallinas Valley Sanitation District (LGVSD)
- Marinwood Community Services District (Marinwood CSD)
- Pacific Gas & Electric (PG&E)
- Marin Sanitary Service

3.4.11 Design-Related Mitigation Requirements from 2005 EIR

Among the numerous mitigation requirements adopted with certification of the 2005 EIR, several included requirements that related to the design of the project. While those pertaining to the single-family homes are no longer applicable, measures that are relevant to the current Project are identified in this section.

To protect existing specimen-sized trees, Mitigation Measure 5.3-2(b) required the use of retaining walls, among other protective methods. Mitigation Measure 5.4-2 required the use of shielded, downward-directed exterior lighting to prevent nighttime glare. To break up the form and lines of the proposed development, Mitigation Measure 5.4-5 required implementation of the proposed Conceptual Landscape Plan. These measures would continue to apply to the current Project.

Finally, the revised project addressed in the Final EIR Second Amendment incorporated the following noise mitigation measures:

- Outdoor living spaces would be provided as secluded courtyards with the segment of the building closest to Highway 101 shielding the courtyard areas from the noise generated by highway traffic.
- Construction of an earth berm along the Highway 101 frontage is proposed in order to shield the building from noise generated by Highway 101 traffic.
- All windows on the Highway 101 frontage side of the building would be non-operable (sealed).
- Windows would be sound rated.

Although the proposed Project would still be required to comply with these measures, the earthen berm is no longer feasible because the grading of the Project has been carefully designed to be balanced, with no import or export of soil required. As discussed in the noise analysis presented in the Environmental Checklist, with incorporation of the other mitigation measures, the Project would have less-than-significant noise impacts even without the earthen berm along the site frontage.

3.4.12 Required Approvals

Planning Approvals

The project would require the following planning approvals:

Master Plan Amendment: An amendment to the *Oakview Master Plan* would be required because the project does not conform to the existing Master Plan.

Design Review: The site is within a Residential, Multi-Family Planned, 1.38 units/acre (RMP-1.38) zoning district, and therefore the project would require Design Review approval pursuant to Chapter 22.42 of the Marin County Code.

Tree Removal Permit: Pursuant to Chapter 22.62 of the Marin County Code, a Tree Removal Permit is required because the project would entail the removal of mature, healthy, native trees.

Other Approvals

In addition, the project would require the following additional approvals from other public agencies:

U.S. Army Corps of Engineers: A Section 404 Permit would be required from the U.S. Army Corps of Engineers (USACE), pursuant to the federal Clean Water Act (1972), for filling of seasonal wetlands.

U.S. Fish & Wildlife Service: The USACE must conduct a Section 7 Consultation with the U.S. Fish & Wildlife Service (USFWS), pursuant to the federal Endangered Species Act, as a prerequisite to issuing the Section 404 Permit.

California Department of Fish and Wildlife: The removal of trees from the riparian habitat flanking Miller Creek would require approval of a Section 1602 Streambed Alteration Agreement by the California Department of Fish and Wildlife (CDFW).

Regional Water Quality Control Board: The project would require Clean Water Act Section 401 Water Quality Certification from the San Francisco Bay Area Regional Water Quality Control Board (RWQCB) as a prerequisite to the Section 404 Permit from the USACE.

The project would also require filing of a Notice of Intent (NOI) to the RWQCB and preparation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP addresses control of stormwater pollution during construction through implementation of Best Management Practices (BMPs), and is required for coverage under the Construction General Permit administered by the RWQCB. In addition, the project must obtain coverage under the Phase II National Pollutant Discharge Elimination System (NPDES) permit for municipal separate storm sewer systems (MS4s) issued by the RWQCB, addressed below.

Marin County Department of Public Works: The Department of Public Works (DPW) administers the Marin County Stormwater Pollution Prevention Program (MCSTOPPP), a joint program created by cities, towns, and the County constituted to prevent stormwater pollution, protect and enhance water quality in creeks and wetlands, preserve beneficial uses of local waterways, and comply with State and federal regulation governing water quality. MCSTOPPP is responsible for ensuring that new development in Marin County complies with the National Pollutant Discharge Elimination System (NPDES) permitting system established under the federal Clean Water Act, which prohibits the discharge of pollutants into waters of the United States unless the discharge complies with an NPDES permit. The project would require stormwater discharge authorization under MCSTOPPP.

Chapter 4: Environmental Checklist for Addendum to the 2005 EIR

The purpose of this checklist is to evaluate the Oaks Senior Living Community Project in order to determine, for each environmental resource issue, whether any "changed condition" (i.e., substantial changes in circumstances, substantial changes in the project, or new information of substantial importance) may result in a new or substantially more severe significant environmental impact. A "no" answer does not necessarily mean that there are no potential impacts for that environmental issue, but that there is no change in the condition or status of the impact since it was analyzed and addressed (with or without mitigation) in the *Oakview Master Plan, Use Permit, Vesting Tentative Map Final Environmental Impact Report* (State Clearinghouse No. 95063038, certified January 11, 2005) ("Final EIR "). Accordingly, the answer in the checklist may be "no" if the Project does not involve changes that would result in a modification to the conclusion of the prior environmental documents with regard to that particular impact.

The certified 2005 EIR consists of five documents, which are identified in more detail in Section 4.1.1, below: the 1996 Draft EIR, the 2001 Revised Draft EIR, the June 2002 Final EIR, the December 2002 Final EIR Amendment, and the November 2004 Final EIR Second Amendment. Reference to the certified 2005 EIR ("2005 EIR") in this Environmental Checklist includes all five of these documents. Otherwise, reference is made to the specific document, primarily either the Final EIR or the Final EIR Second Amendment.

To distinguish the current Oaks Senior Living Community Project from the earlier iterations of the project, it is referred to throughout this checklist as the "Project," while earlier proposals are referenced as "project."

4.1 Explanation of Checklist Evaluation Categories

4.1.1 Where Impact was Analyzed

The first column in the checklist, "where impact was analyzed," provides a cross-reference to the specific 2005 EIR document and the impact number, section, or pages in which information and analysis that pertain to the environmental issue listed under each topic may be found. The 2005 EIR consists of the following documents:

- *Oakview Master Plan, Use Permit, Vesting Tentative Map Draft Environmental Impact Report* (September 1996) ("1996 Draft EIR");
- *Oakview Master Plan, Use Permit, Vesting Tentative Map Recirculated Draft Revised Environmental Impact Report* (March 28, 2001) ("2001 Revised Draft EIR");
- *Oakview Master Plan, Use Permit, Vesting Tentative Map Final Environmental Impact Report* (June 2002) ("Final EIR");
- *Oakview Master Plan, Use Permit, Vesting Tentative Map Final Environmental Impact Report Response to Comments Amendment* (December 2002) ("Final EIR Amendment");

- *Oakview Master Plan, Tentative Map Amendment* to the *Final Environmental Impact Report* (November 2004) ("Final EIR Second Amendment")

4.1.2 Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?

Pursuant to Section 15162(a)(1) of the State *CEQA Guidelines*, this checklist column indicates whether proposed changes in the previously approved project (as a result of the current Project) would require major revisions to the 2005 EIR due to new significant impacts that have not previously been considered in the 2005 EIR or a substantial increase in the severity of a previously identified significant impact.

4.1.3 Do Any New Circumstances Involve New or Substantially More Severe Impacts?

Pursuant to Section 15162(a)(2) of the State CEQA Guidelines, this checklist column indicates whether there have been substantial changes in the circumstances under which the Project is undertaken (e.g., changes to the Project site or the vicinity) that have occurred subsequent to the 2005 EIR, which would require major revisions to the 2005 EIR because they would result in the current Project having new significant environmental impacts that were not considered in the 2005 EIR or a substantial increase in the severity of a previously identified significant impact.

4.1.4 Any New Information of Substantial Importance Requiring New Analysis or Verification?

Pursuant to Section 15162(a)(3)(A-D) of the State *CEQA Guidelines*, this column indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the 2005 EIR was certified as complete is available and requires major revisions to the analysis of the 2005 EIR to determine whether the environmental conclusions remain valid. If the new information shows that: (A) the Project would have one or more significant effects not discussed in the 2005 EIR that would require major revision to the 2005 EIR; or (B) that significant effects previously examined would be substantially more severe than shown in the 2005 EIR and would require major revisions to the 2005 EIR; or (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects or the Project, but the Project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation measures or alternatives which are considerably different from those analyzed in the 2005 EIR would substantially reduce one or more significant effects on the environment, but the Project proponents decline to adopt the mitigation measure or alternative, then the question would be answered 'Yes' and would either require the preparation of a subsequent or supplemental EIR or a mitigated negative declaration.

If the additional analysis completed as part of this environmental checklist finds that the conclusions of the 2005 EIR remain the same and no new significant impacts are identified, or identified environmental impacts are not found to be substantially more severe, or additional mitigation is not necessary, then the question would be answered 'No' and no subsequent or supplemental EIR is required pursuant to *CEQA Guidelines* sections 15162 or 15163, and an addendum shall be prepared pursuant to *CEQA Guidelines* Section 15164. New studies completed

as part of this environmental checklist are attached to this checklist, and/or are on file with the Marin County Community Development Agency.

4.1.5 Do Previously Adopted 2005 EIR Mitigation Measures Reduce Impacts to a Less-Than-Significant Level?

Pursuant to Section 15162(a)(3) of the State *CEQA Guidelines*, this column indicates whether the 2005 EIR identified feasible mitigation measures to avoid or minimize the significant impacts of the proposed Project. The mitigation measures that were identified in the 2005 EIR were adopted and made conditions of project approval, and many of them have already been implemented. A "yes" response is provided if previously-adopted mitigation measures would effectively reduce new or more severe impacts of the current Project. A "no" response would indicate that previously-adopted measures are insufficient to reduce new or more severe impacts. If "NA" is indicated, this Environmental Checklist concludes that the impact does not occur with this Project and therefore no mitigation is needed. It can also signify that no mitigation measures were required in the 2005 EIR.

4.2 Discussion and Mitigation Sections

4.2.1 Discussion

A discussion of the elements of this Environmental Checklist is provided under each environmental issue in order to clarify the answers. The discussion provides information about the particular environmental issue, how the Project relates to the issue, and the status of any mitigation that may be required or that has already been adopted and, in some cases, implemented.

4.2.2 Mitigation Measures from the 2005 EIR

Previously adopted mitigation measures from the 2005 EIR that will substantially lessen or avoid impacts of the proposed Project are listed under each environmental issue. Where applicable, new mitigation measures could be included in this Environmental Checklist. The final text of the previously adopted mitigation measures from the 2005 EIR is included in the "Mitigation Measures" section of each checklist item. In addition, all of the previously adopted 2005 EIR mitigation measures are consolidated in the revised Mitigation Monitoring and Reporting Program (MMRP) that is available for review at the following website: www.marincounty.org/envplanning.

4.2.3 Conclusions

A summary discussion of the conclusion relating to the analysis contained in each section is provided at the end of each section.

4.3 Introduction to the Analysis

The Environmental Checklist that follows evaluates the physical effects on the environment that could result from implementation of the proposed Oaks Senior Living Community. All of the new and revised project components described in detail in Chapter 3 were reviewed for their potential to cause new environmental impacts not previously evaluated in the 2005 EIR.

It should be noted that, with the exception of the traffic analysis, very little detail was provided in the Final EIR Second Amendment regarding the potential environmental effects of the Mitigation Alternative—consisting of an assisted living facility in lieu of the previously proposed office development—while a detailed analysis was provided in the Final EIR of the potential impacts of the office development. For example, regarding the air quality impacts of the Mitigation Alternative, the Final EIR Second Amendment merely stated that the Mitigation Alternative would result in air quality impacts similar to those discussed in the Final EIR. Therefore, many of the discussions of comparative impacts presented in this Addendum refer to the detailed impact analysis presented in the Final EIR as a basis for comparing the potential impacts of the currently proposed Project to the impacts previously disclosed in the 2005 EIR. These discussions also include statements on the relevant findings of the Final EIR Second Amendment. However, the more detailed analysis presented in the Final EIR provides a more substantial basis for comparison to the current Project's potential impacts.

1. Aesthetics

Environmental Issue Area	Where Impact Was Analyzed in 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
1. Aesthetics. Would the Project:					
a. Have a substantial adverse effect on a scenic vista?	Final EIR, pgs. 5.4-28–5.4-35; Final EIR Second Amendment, pg. 11	No	No	No	Yes
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Final EIR, pgs. 5.4-28–5.4-35; Final EIR Second Amendment, pg. 11	No	No	No	n/a
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	Final EIR, pgs. 5.4-28–5.4-35; Final EIR Second Amendment, pg. 11	No	No	No	Yes
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Final EIR, pgs. 5.4-16–5.4-19; Final EIR Second Amendment, pg. 11	No	No	No	Yes

Discussion

1-a) The Final EIR addressed the overall visual impacts of the Oakview Master Plan[1] as viewed from five off-site vantage points with partial views of the project site. Three of those viewpoints were located east of the project site, from which the site of the proposed Senior Assisted Living facility would not be visible. These three viewpoints are:

- **Viewpoint 1:** Proposed Lucas Valley Road entrance to residential sites
- **Viewpoint 2:** Eastern end of Erin Drive (proposed for extension into project site)
- **Viewpoint 3:** Western end of Ellen Drive

Because the current Project site is a 9.6-acre site located on the eastern portion of the 106-acre site evaluated in the Final EIR, it is not visible from viewpoints 1 through 3, and no further consideration of the impact discussions related to those viewpoints is necessary. The other two viewpoints are:

[1] Throughout this Environmental Checklist, the project evaluated in the 2005 EIR is referred to as the "Oakview Master Plan." A complete description of that project, including amendments to the project, is provided in Chapter 2.

- **Viewpoint 4:** Northbound Highway 101, opposite proposed development
- **Viewpoint 5:** Northbound Highway 101, just south of St. Vincent's Drive

Viewpoints 4 and 5 provide direct views of the site to passing motorists on U.S. Highway 101. Viewpoint 4 was from northbound Highway 101, just south of the proposed 80,000-square-foot office building (Building A), viewing northwest across the site. Viewpoint 5 was also from northbound Highway 101, near the north end of the site, viewing west toward the proposed 14,400-square-foot office building (Building B).

Because the views of the undeveloped site from Highway 101 could be considered a publicly accessible scenic vista, this discussion considers whether the proposed Project could have new or substantially more severe impacts on viewpoints 4 and 5 than were previously identified in the Final EIR.

The project site as viewed from these vantage points consists of grassland in the lower elevations in the eastern portion of the site and a transitional woodland-grassland edge on the western portion of the site that creates a soft and diffuse line. A north/south-trending ridgeline extends to the west of the current Project site that was included in the larger site evaluated in the EIR. The ridge is densely vegetated with oak and other native trees. Due to the presence of the busy adjacent freeway and associated signage, the view from these vantage points was rated as having *moderate* visual sensitivity. The tree cover as seen from Viewpoint 5 was deemed more coherent than that visible from Viewpoint 4, creating a more distinct transition between the grassland and the trees.

The discussion in the Final EIR of visual impacts as viewed from viewpoints 4 and 5 found that the proposed office buildings would be prominent and would attract attention. Although the buildings would be similar to many other nearby office buildings adjacent to Highway 101, until landscape screening was established, the visual changes to the site would only be acceptable in a location with low visual sensitivity. Consequently, the EIR found the visual impacts to viewpoints 4 and 5 to be significant (Impacts 5.4-5 and 5.4-6). With implementation of previously adopted Mitigation Measures 5.4-5 (implement Conceptual Landscape Plan) and 5.4-6 (same as Mitigation Measure 5.4-5) (see below), the visual impacts would be reduced to a less-than-significant level.

The Final EIR Second Amendment evaluated as the Mitigation Alternative the replacement of the previously proposed office buildings with a single 94,400-square-foot assisted living facility in the location where Building A was previously proposed. It determined that with the elimination of Building B, Impact 5.4-6 would not occur, and the reduction in parking for Building A would allow for a larger landscaped berm between the parking lot for Building A and Highway 101 than previously proposed, allowing for increased visual screening. Although the assisted living facility would be slightly larger than Building A, the Final EIR Second Amendment concluded that the modified project would have the same visual impacts as described in the Final EIR, and the same mitigation would be required. However, with Impact 5.4-6 eliminated, there was no need for Mitigation Measure 5.4-6,

and this measure was removed from the Mitigation Monitoring and Reporting Program (MMRP) in the Board of Supervisors resolution certifying the Final EIR.

Although the Final EIR Second Amendment did not specify the building height of the revised project, it did state that the building would be slightly larger than Building A in the previous Master Plan. The Final EIR stated that Building A would have a maximum height of 30 feet above natural grade at any point on the structure. In comparison, the main building of the current Project would have a maximum height of 38 feet 6 inches above natural grade (31 feet 8 inches above finished grade). However, as shown on Figure 6, the building would be cut into the hillside, which would substantially reduce its apparent height and massing. At the rear of the building, which would be located upslope and therefore at the most visually prominent location within the development envelope, the top of the roof ridge would be approximately 33 feet 5 inches above the existing grade. The proposed memory care building, which is a single level, would have a maximum height of approximately 30 feet above existing grade (20 feet above finished grade), but would be just 13 feet 3 inches above natural grade at the rear of the building. The affordable apartment building would have a maximum height of approximately 22 feet above natural grade.

The overall development footprint of the current Project is smaller than the project evaluated in the 2005 EIR, given that the northern portion of the site would no longer include a two-story office building and parking lot for 58 vehicles. Although the combined footprints of the three Project buildings occupy a larger area than that occupied by previously proposed Building A, the buildings do not encroach as much on the upper slopes of the site. The memory care building would occupy an area that was largely devoted to vehicle parking in the previous project evaluated in the Final EIR.

Overall, the total square footage of the proposed Project would be approximately 20 percent larger than the office project evaluated in the Final EIR and the assisted living facility evaluated in the Final EIR Second Amendment. The main building and memory care building would have a combined building area of 113,074 square feet, compared to 94,000 square feet of assisted living development considered in the Final EIR Second Amendment. However, as shown on Figures 5 and 15 through 17, the Project buildings would be highly articulated in their massing and form, and would employ a palette of earth tone colors and natural building materials of wood and stone that would enhance the visual compatibility of the buildings with the natural surroundings. This contrasts substantially with the modern white and dark glass office buildings depicted in the visual simulations in the Final EIR, which featured large expanses of uniform massing. Those buildings were more visually intrusive and incongruous with their natural surroundings than the proposed Project buildings. The extensive planting of trees and other vegetation along the eastern edge of proposed Project development would further soften and partially obscure views of the Project as viewed from Highway 101.

The Project site is virtually unchanged from the site evaluated in the 2005 EIR, and the prior determination that the site has moderate visual sensitivity would still apply. The proposed Project would be more visually compatible with its surroundings than the previous project, and therefore less obtrusive to motorists passing on Highway 101, who would only have a view of the site for a few seconds in passing. Similar to the revised project evaluated in the Final EIR Second Amendment, the northern portion of the site would only be developed with the entrance driveway; therefore, Final EIR Impact 5.4-6 would not apply to the Project.

For all of the preceding considerations, the proposed Project would not result in new or substantially more severe visual impact than was previously evaluated in the 2005 EIR, including an impact on a scenic vista. Impact 5.4-5 from the 2005 EIR would still apply to the Project, and implementation of previously adopted Mitigation Measure 5.4-5 would still be required.

1-b) The Final EIR did not explicitly address the potential impacts of the Oakview Master Plan on scenic resources. However, the discussion on overall visual impacts in Item 1-a, above, includes the scenic resources that are present on the Project site. Furthermore, although the discussion of potential visual impacts did not explicitly address the removal of trees from the site, Section 5.3, Biological Resources, of the Final EIR did address tree removal (as does the discussion of Checklist Item 4-e, below). Specifically, Impact 5.3-2 stated that an estimated 35 trees would be removed to accommodate the proposed crossing of Miller Creek and to accommodate other improvements in the vicinity of the then-proposed office development. The discussion noted that additional trees could be affected along the fringe of the proposed office development and by site grading, but did not quantify the number of additional trees that could be removed.

According to the biological assessment[2] prepared for the Project and peer-reviewed by an independent biological consultant during the preparation of this Addendum (see Section 4, below), the proposed crossing of Miller Creek could potentially require the removal of 19 trees, and development of the overall Project would potentially remove 50 trees, 39 of which are protected under the Marin County Development Code Chapter 22.27. This impact is addressed in Section 4. However, with respect to substantial damage of scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway, the proposed Project site is not located within or near a designated State Scenic Highway. Although a section of Highway 101 north of State Route 37 is eligible for designation as a State Scenic Highway, it is not currently designated as

[2] WRA Environmental Consultants, *Biological Resources Assessment Update, The Oaks Senior Living Community: a Residential Care Facility Project, Marinwood, Unincorporated Marin County, California*, June 2017.

such.[3] Therefore, there is no potential for the proposed Project to adversely affect scenic resources within a scenic highway.

1-c) The discussion in Item 1-a, above, applies to the potential for the proposed Project to adversely affect the overall visual character of the site, and addresses this Checklist question. Please see Item 1-a for additional information.

1-d) Although the Final EIR addressed potential nighttime lighting impacts of the Oakview Master Plan, the discussion focused on the changes that would occur at Viewpoint 1, at the Lucas Valley Road entrance to 20 single-family residential lots. The Final EIR Second Amendment did not explicitly address nighttime lighting and glare impacts, but concluded that the amended project (Mitigation Alternative) would have the same visual and aesthetic quality impacts as the proposed project, and the same mitigation requirements would apply.

The currently proposed Project would be consistent in use and scale with the prior amended project, which included a 94,400-square-foot assisted living facility. The Project would be illuminated at night by light poles spaced approximately every 100 feet along the entrance drive, parking lot lights, pedestrian light bollards, and wall-mounted lights at the building entrances. All lighting would be in downward-directed fixtures, and would not generate excessive glare. Interior lighting occurs in all habitable buildings and does not comprise a source of offsite glare. The exterior lighting of the Project would be substantially screened or blocked from offsite views by the extensive planting of trees along and near the site frontage. Minor glare from vehicles parked outdoors would similarly be filtered or blocked by the proposed landscaping.

The proposed Project would be comparable to the project evaluated in the Final EIR Second Amendment, and would not include any features or components that would alter the conclusions of the previous environmental analysis. Therefore, the proposed Project would not cause new or more severe nighttime lighting impacts than those previously identified in the 2005 EIR.

2005 EIR Mitigation Measures

The 2005 EIR identified six mitigation measures to reduce identified visual impacts which were adopted and made conditions of project approval. Only previously adopted Mitigation Measure 5.4-5, adopted as Condition of Approval No. 47, would continue to apply to the proposed Project. The Condition of Approval explicitly states that the requirement applied to the assisted living component of the Master Plan, thereby demonstrating its applicability to the currently proposed Project.

---

[3] California Department of Transportation (Caltrans), Officially Designated State Scenic Highways and Historic Parkways (website), accessed November 8, 2017 at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

Mitigation Measure 5.4-5 (Condition of Approval No. 42): Implement the applicant's proposed landscaping (which includes landscaping around the office area) as shown on the Conceptual Landscape Plan. This would break up the form and lines of project site development.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe impacts on aesthetics than those previously evaluated in the 2005 EIR.

2. Agriculture and Forestry Resources

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
2. Agriculture. Would the Project:					
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	n/a	No	No	No	n/a
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	n/a	No	No	No	n/a
c. Conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?	n/a	No	No	No	n/a
d) Result in the loss of forest land or conversion of forest land, to non-forest use?	n/a	No	No	No	n/a
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land, to non-forest use?	n/a	No	No	No	n/a

Discussion

The 2005 EIR did not discuss agricultural or forestry resources or address potential impacts to these resources. The information presented in this section represents new analysis applicable to the current proposed Project.

2-a) The California Department of Conservation's (DOC) Division of Land Resource Protection tracks the conversion of agricultural land to other uses. The Department categorizes agricultural land as grazing land or one of four categories of farmland: Prime Farmland, Farmland of Statewide Significance, Unique Farmland, and Farmland of Local Importance. The most recent data published by DOC on farmland conversion indicate that 192 acres of farmland in Marin County were converted to other uses between 2010 and 2012. An additional 182 acres of grazing land were converted during this same time period, for a total of 374 acres of agricultural land converted to other uses.[4]

The DOC's Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance.

The Project site and the surrounding lands that were part of the 106-acre property evaluated in the 2005 EIR are designated "Other Land" on the most recent map of important farmland published by the DOC.[5] This designation is assigned to land that is not included in any other mapping category. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Based on the DOC designation of the Project site by its FMMP, there is no potential for the Project to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. The Project would therefore have no impact on farmland, and no mitigation would be required.

2-b) The Project site is zoned Residential, Multi-Family Planned, 1.38 units/acre (RMP-1.38), and is not under a Williamson Act contract. There is no potential for the Project to conflict with zoning for agricultural use or conflict with a Williamson Act contract.

---

4 California Department of Conservation, Division of Land Resource Protection, *California Farmland Conversion Report 2015,* Table A-15, Marin County 2010-2012 Land Use Conversion, September 2015.

5 California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, "Marin County Important Farmland 2014" (map), July 2016.

2-c) "Timberland" is defined in Public Resources Code Section 4526 as land, other than land owned by the federal government and land designated by the State Board of Forestry and Fire Protection as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. By contrast, "forest land" is defined in Public Resources Code Section 12220(g) as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Regarding a potential conflict with zoning of timberland zoned Timberland Production, Government Code Section 51104(g) defines "timberland production zone" or "TPZ" as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, which are defined in Section 51104(h). TPZs were established by the California Legislature in 1976 to replace Williamson Act contracts for agricultural protection of timberlands.

Pursuant to the Z'berg-Warren-Keene-Collier Forest Taxation Reform Act of 1976, zoning of forest land and timberland is done at the county level. Because the Project site is zoned for residential use, implementation of the proposed Project would not conflict with zoning for forest land, timberland, or as a TPZ.

2-d) According to the biological resources assessment of the Project site, which evaluated the Project site plus a minimum 20-foot buffer around the limits of anticipated disturbance, the 10.43-acre biological study area includes 1.73 acres of coast live oak woodland and 0.29 acre of riparian coast live oak woodland, representing about 19 percent of the Project site.[6] Based on the State's definition of forest land, discussed in Item 2-c, above, the Project site therefore appears to qualify as forest land. Given the conservation easement on the dense woodland located to the east of the site, management of the site for timber production is not feasible, but it is being passively managed for aesthetics and biodiversity benefits.

The proposed Project would remove some of the trees on the site, primarily in the riparian corridor surrounding the proposed Miller Creek crossing. According to the biological resources assessment, construction of the Project bridge crossing would require the removal of 19 trees, resulting in the loss of 0.05 acre of riparian coast live oak woodland, with temporary impacts to an additional 0.04 acre of this habitat. Including these trees, development of the Project would require removal of up to 50 trees in total, 39 of which are protected by Marin County Development Code Chapter 22.27. As discussed in more detail in Section 4, Biological Resources, mitigation for this significant impact (Final EIR

6 WRA Environmental Consultants, *op. cit.*

Impact 5.3-2) would require the planting of replacement trees at a 2:1 ratio (ratio of replacement trees to number of trees removed, among other provisions).

The majority of trees that are present on the site would not be removed to accommodate the proposed Project, and those that would be removed would be replaced at a 2:1 ratio. Most of the site area that would be developed is occupied by non-native grassland, not forest land. Because the site is not being actively managed as a forest resource, nor is the much denser forest land adjoining the site to the east, and because a relatively small number of trees would be removed, and would be replaced by twice as many trees, the Project would have a *less-than-significant impact* on forest land due to the conversion of forest land to non-forest use. Furthermore, tree removal is consistent with the project evaluated in the Final EIR, and the tree removal now proposed would not constitute a new or substantially more severe impact on forest resources.

2-e) The Project's impact on forest land is addressed in Item 2-d, above, and as discussed in Item 2-a, the Project would not directly or indirectly adversely affect farmland. Aside from the loss of forest land discussed above, the Project would not have any other impacts on forest land.

2005 EIR Mitigation Measures

The 2005 EIR did not identify any mitigation measures for impacts to agricultural or forestry resources. No new significant impacts or substantially more severe impacts on these resources have been identified for the proposed Project; therefore, no additional mitigation measures are required for the proposed Project.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe impacts on farmland of Statewide importance or on agricultural or forest resources.

3. Air Quality

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
3. Air Quality. Would the Project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?	Final EIR, pgs. 5.6-7 to 5.6-8; Final EIR Second Amendment, pg. 17	No	No	Yes	Yes
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Final EIR, pgs. 5.6-8 to 5.6-9; Final EIR Second Amendment, pg. 17	No	No	Yes	Yes
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Final EIR, pg. 5.6-11; Final EIR Second Amendment, pg. 17	No	No	Yes	Yes
d. Expose sensitive receptors to substantial pollutant concentrations?	Final EIR, pgs. 5.6-9 to 5.6-11; Final EIR Second Amendment, pg. 17	No	No	Yes	Yes
e. Create objectionable odors affecting a substantial number of people?	Final EIR, pg. 5.6-11; Final EIR Second Amendment, pg. 17	No	No	Yes	Yes

Discussion

3-a) The Final EIR described less-than-significant air quality impacts, including Impact 5.6-1 (Air Quality Standards), Impact 5.6-2 (Cumulative Net increases in Non-attainment Pollutants), and Impact 5.6-5 (Cumulative Impacts). In addition, the Final EIR described a potentially significant impact due to construction activities (Impact 5.6-3: Impact to Sensitive Receptors) but found it to be less than significant with mitigation. The Final EIR Second Amendment determined that each of these impacts would still apply to the Mitigation Alternative, and the associated previously adopted mitigation measures for the potentially significant impact would still be required. The Final EIR addressed consistency with the 1997 Bay Area Clean Air Plan and 1992 *Marin Countywide Plan* in accordance with the Bay

Area Air Quality Management District's (BAAQMD) *CEQA Air Quality Guidelines* (dated December 1999) utilized and applicable at the time.[7]

At the time of the Final EIR, the Bay Area was nonattainment for ozone, carbon monoxide (CO), and particulate matter air quality standards. Generally, the regional air quality has improved since preparation of the Final EIR due to regulatory improvements to emission efficiencies. However, air quality standards have also been strengthened. As a result, the Bay Area is currently designated nonattainment for State and national ozone standards and for State and national particulate matter standards but is no longer nonattainment for CO.

2017 Air Quality Assessment Update

The current BAAQMD Clean Air Plan was adopted in April of 2017.[8] The Clean Air Plan provides a roadmap for BAAQMD's efforts over the coming years to reduce air pollution and protect public health and the global climate, in pursuit of a "post-carbon economy" by the year 2050. The Clean Air Plan identifies potential rules, control measures, and strategies that the BAAQMD can pursue to reduce air emissions and GHG emissions in the Bay Area. The measures of the Clean Air Plan addressing the transportation sector are in direct support of *Plan Bay Area 2040*, which incorporates the region's Sustainable Communities Strategy and the 2040 Regional Transportation Plan. Highlights of the Clean Air Plan control strategy include:

- Limit Combustion: Develop a region-wide strategy to improve fossil fuel combustion efficiency at industrial facilities, beginning with the three largest sources of industrial emissions: oil refineries, power plants, and cement plants.
- Stop Methane Leaks: Reduce methane emissions from landfills, and oil and natural gas production and distribution.
- Reduce Exposure to Toxics: Reduce emissions of toxic air contaminants by adopting more stringent limits and methods for evaluating toxic risks at existing and new facilities.
- Put a Price on Driving: Implement pricing measures to reduce travel demand.
- Advance Electric Vehicles: Accelerate the widespread adoption of electric vehicles.
- Promote Clean Fuels: Promote the use of clean fuels and low or zero carbon technologies in trucks and heavy-duty vehicles.

---

7 Bay Area Air Quality Management District, *CEQA Guidelines Assessing the Air Quality Impacts of Projects and Plans*, December, 1999. Accessed December 11, 2017 at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqaguid.pdf

8 Bay Area Air Quality Management District, *Final 2017 Clean Air Plan*, April 19, 2017. Accessed December 11, 2017 at http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en

- Accelerate Low Carbon Buildings: Expand the production of low-carbon, renewable energy by promoting on-site technologies such as rooftop solar and ground-source heat pumps.
- Support More Energy Choices: Support of community choice energy programs throughout the Bay Area.
- Make Buildings More Efficient: Promote energy efficiency in both new and existing buildings.
- Make Space and Water Heating Cleaner: Promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

Current BAAQMD *CEQA Air Quality Guidelines* (May 2017)[9] state that when a public agency contemplates approving a project where an air quality plan consistency determination is required, BAAQMD recommends that the agency analyze the project with respect to the following questions: (1) Does the project support the primary goals of the air quality plan; (2) Does the project include applicable control measures from the air quality plan; and (3) Does the project disrupt or hinder implementation of any Clean Air Plan control measures? If the first two questions are answered in the affirmative and the third question is answered in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Bay Area. The recommended measure for determining project support of these goals is consistency within the current BAAQMD CEQA thresholds of significance.

As discussed in detail in Checklist Item 3-c, below, the proposed Project would be consistent with current BAAQMD CEQA thresholds of significance, and thus, there would be no new or substantially more severe significant impact associated with obstructing implementation of, or otherwise conflicting with, the applicable air quality plan. The discussion of Final EIR Impact 5.6-5 (Cumulative Impacts) noted that cumulative air quality impacts were evaluated based on both a quantification of the project-related air quality impacts and consistency with the Clean Air Plan, and concluded that the project would have a less-than-significant cumulative air quality impact. Therefore, the proposed Project would not result in a new or substantially more severe impact on clean air plan compliance than was previously evaluated in the 2005 EIR.

3-b) The Final EIR identified Impact 5.6-1 (Air Quality Standards) as a less-than-significant impact related to an exceedance of an air quality standard. The Final EIR looked at three intersections and estimated the localized carbon monoxide (CO) concentrations for the existing (2000), short term without project (2005), short term with project (2005), and future with project (2015).[10] The Final EIR concluded that CO concentrations were

9 Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017. Accessed December 11, 2017 at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

10 Carbon monoxide is a non–reactive pollutant that is a product of incomplete combustion of organic material that is mostly associated with motor vehicle traffic and, in wintertime, with wood-burning stoves and fireplaces.

predicted to remain below the California/National Ambient Air Quality Standards (CAAQS/NAAQS) and, thus, would have a less-than-significant impact.

2017 Air Quality Assessment Update

The current BAAQMD *CEQA Air Quality Guidelines* requires review of a proposed project's impacts on localized CO concentrations near intersections and other areas with motor vehicles. Increased traffic volumes due to the proposed Project operations would result in increased pollutant emissions in the vicinity of the roadways utilized by this traffic, which could cause pollutant levels to exceed the CAAQS/NAAQS, especially near congested intersections. The current BAAQMD *CEQA Air Quality Guidelines* identifies the following screening criteria for determining whether a project's motor vehicle CO emissions would likely cause CAAQS/NAAQS to be exceeded along congested roadway and other areas with motor vehicles. The Project would have a less-than-significant impact on localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per day.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per day where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The proposed Project would generate minimal new traffic trips (24 AM peak-hour trips and 33 PM peak-hour trips) and would comply with these screening criteria. Based on the BAAQMD's criteria, Project-related traffic would not exceed CO standards and therefore, like the project evaluated in the Final EIR, this impact would be considered less than significant on a project-level and cumulative basis. Thus, the proposed Project would not result in new or substantially more severe local CO impact than was previously evaluated in the Final EIR.

3-c) The Final EIR described less-than-significant air quality impacts, including Impact 5.6-2 (Cumulative Net increases in Non-attainment Pollutants) and Impact 5.6-5 (Cumulative Impacts). In addition, the Final EIR described a potentially significant impact due to construction activities (Impact 5.6-3: Impact to Sensitive Receptors) but found it to be less than significant with mitigation.

The Final EIR did not specifically quantify construction emissions but concluded that, per BAAQMD *CEQA Air Quality Guidelines*, the incorporation of best management practices would reduce air quality impacts to less than significant. Using the emissions model URBEMIS7G, the Final EIR estimated operational emissions (Exhibit 5.6-3 of the Final EIR) and found that operational emissions would be less than the significance thresholds

applicable at the time. Therefore, the Final EIR concluded that construction and operational emissions would have a less-than-significant impact on air quality.

The Final EIR Second Amendment determined that each of these impacts would still apply to the amended project (Mitigation Alternative), and the associated mitigation measures previously adopted for the potentially significant impacts would still be required.

2017 Air Quality Assessment Update

BAAQMD's *CEQA Air Quality Guidelines* have been substantially revised since the air quality analysis summarized in the Final EIR was performed. The current BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction and operational emissions and comparison of those emissions to significance thresholds. Therefore, as part of this Addendum, using updated methodologies, the estimated construction and operational emissions associated with the proposed Project were compared to the current thresholds of significance to determine potential impacts.

The air quality analysis includes a review of criteria pollutant emissions such as carbon monoxide (CO),[11] nitrogen oxides (NO_x), sulfur dioxide (SO_2), volatile organic compounds (VOCs) as reactive organic gases (ROG),[12] coarse particulate matter less than 10 micrometers in diameter (PM_{10}), and fine particulate matter less than 2.5 micrometers ($PM_{2.5}$).[13]

The significance thresholds from the current BAAQMD's *CEQA Air Quality Guidelines* state that a project would have a significant adverse impact on air quality if it would exceed any of the following thresholds:

- Average daily construction exhaust emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$, or 82 pounds per day of PM_{10}; or
- Average daily operational emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; or
- Annual emissions of 10 tons of ROG, NO_x, or $PM_{2.5}$, or 15 tons of PM_{10}.

The California Air Resources Board's (CARB) California Emission Estimator Model (CalEEMod, Version 2016.3.1) was used to quantify construction and operational

---

11 CO is a non-reactive pollutant that is a product of incomplete combustion of organic material, and is mostly associated with motor vehicle traffic, and in wintertime, with wood–burning stoves and fireplaces.

12 VOC means any compound of carbon, excluding CO, carbon dioxide (CO_2), carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions and thus, a precursor of ozone formation. ROG are any reactive compounds of carbon, excluding methane, CO, CO_2 carbonic acid, metallic carbides or carbonates, ammonium carbonate, and other exempt compounds. The terms VOC and ROG are often used interchangeably.

13 PM_{10} and $PM_{2.5}$ consists of airborne particles that measure 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs, causing adverse health effects.

emissions.[14] CalEEMod is a land use emissions model that estimates construction emissions caused by demolition, construction, and operational activities. It is the latest emissions model and reflects CARB's current understanding of emission factors and calculation methodologies and how emissions have changed over time and are projected to change in the future. CalEEMod replaced the URBEMIS7G emissions model that was used for the Final EIR.

Construction activities are expected to occur over a 19-month period. Construction activities would begin with site preparation and grading, followed by building construction, and would finish with access road paving, and architectural coating. Construction of the access roadway would occur over a period of one month. Bridge construction would occur over a two-month period and is likely to occur prior to building construction. Typically, construction activities would occur between 8 a.m. and 5 p.m. (eight hours per day), Monday through Friday. Construction activities would require the use of diesel-powered construction equipment such as cranes, excavators, loaders, cement mixers, rollers, and pavers. Approximately 25 concrete truck trips would be required for the bridge construction. The CalEEMod inputs and outputs documentation is provided in Appendix A.

Table 3-1 provides the estimated unmitigated short-term construction emissions that would be associated with the proposed Project. Table 3-1 also provides the estimated mitigated (with the incorporation of previously adopted Final EIR Mitigation Measure 5.6-3) short-term emissions that would be associated with construction of the proposed Project. The construction phases (i.e., grading, site preparation, building construction, paving, architectural coating, and bridge construction) would be sequential (i.e., would not generally occur simultaneously). Thus, the average daily construction emissions were determined as the total construction emissions divided by the number of construction days and then compared to the BAAQMD significance thresholds.

As indicated in Table 3-1, the estimated average daily construction emissions would be below the current BAAQMD's significance thresholds and would therefore have a less-than-significant impact on air quality. The maximum daily construction emissions would vary from phase to phase; NO_x, PM_{10}, and $PM_{2.5}$ emissions tend to be highest during site preparation and grading, and ROG tends to be highest during application of architectural coatings. Notably, the maximum daily construction emissions would also be below the current BAAQMD's significance thresholds.

[14] California Air Pollution Control Officers Association, *CalEEMod User's Guide Version 2016.3.1*, September 2016. Accessed December 11, 2017 at http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2.

Table 3-1: Estimated Daily Construction Emissions (pounds)

Condition	ROG	NO_x	PM_{10}	$PM_{2.5}$	CO
	Unmitigated				
Construction	**7.20**	**26.7**	**1.30**	**1.22**	**22.0**
Significance Threshold	54	54	82	54	---
Significant (Yes or No)?	No	No	No	No	No
	Mitigated				
Construction	**5.65**	**19.4**	**0.52**	**0.52**	**23.0**
Significance Threshold	54	54	82	54	---
Significant (Yes or No)?	No	No	No	No	No

SOURCE: California Air Resources Board CalEEMod Version 2016.3.1. Bridge construction emissions based on CARB EMFAC (vehicles and trucks) and OFFROAD (equipment).

CalEEMod was also used to estimate emissions that would be associated with motor vehicle use, space and water heating, and landscape maintenance expected to occur after the proposed Project construction is complete and operational. The proposed Project land use types and size and other project-specific information were input to the model. Unless otherwise noted, the CalEEMod model defaults for Marin County were used. CalEEMod provides emissions for transportation, areas sources,[15] electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport.

Estimated daily and annual operational emissions that would be associated with the proposed Project are presented in Tables 3-2 and 3-3 and are compared to BAAQMD's thresholds of significance. As shown in the tables, the estimated proposed Project operational emissions would be below BAAQMD's current significance thresholds.

15 Operational emissions associated with hearths (natural gas/propane fireplaces), consumer products (various solvents used in non-industrial applications, which typically include cleaning supplies, kitchen aerosols, and toiletries), area architectural coatings, and landscaping equipment.

Table 3-2: Estimated Daily Project Operational Emissions (pounds)

Condition	ROG	NO_x	PM_{10}	$PM_{2.5}$	CO
	Summer				
Area	3.28	1.72	0.19	0.19	11.6
Energy	0.04	0.32	0.03	0.03	0.14
Mobile	1.21	3.35	2.18	0.64	12.1
Total Proposed Project	**4.53**	**5.39**	**2.40**	**0.86**	**23.8**
Significance Threshold	54	54	82	54	---
Significant Impact?	No	No	No	No	No
	Winter				
Area	3.28	1.72	0.19	0.19	11.6
Energy	0.04	0.32	0.03	0.03	0.14
Mobile	1.06	3.62	2.18	0.64	12.3
Total Proposed Project	**4.38**	**5.67**	**2.40**	**0.86**	**24.0**
Significance Threshold	54	54	82	54	---
Significant Impact?	No	No	No	No	No

SOURCE: CARB CalEEMod Version 2016.3.1.

Table 3-3: Estimated Annual Project Operational Emissions (tons)

Condition	ROG	NO_x	PM_{10}	$PM_{2.5}$	CO
Area	0.53	0.02	<0.01	<0.01	0.99
Energy	<0.01	0.06	<0.01	<0.01	0.02
Mobile	0.18	0.61	0.37	0.11	2.04
Total Proposed Project	**0.73**	**0.69**	**0.38**	**0.12**	**3.05**
Significance Threshold	10	10	15	10	---
Significant (Yes or No)?	No	No	No	No	No

SOURCE: CARB CalEEMod Version 2016.3.1.

The current BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants also be addressed by comparison to the mass daily and annual thresholds. These thresholds were developed to identify a cumulatively considerable contribution to a significant regional air quality impact. Project-related emissions would be below the significance thresholds. Therefore, the impacts of the proposed Project would not be cumulatively considerable and the cumulative impacts would be less than significant.

Notably, the Final EIR presented an estimate of the daily operational emissions that would be associated with the previously proposed office and residential project (See Table 5.6-3 of the Final EIR). (The Final EIR Second Amendment stated only that the air quality impacts of the Mitigation Alternative would be similar to those discussed in the Final EIR.) The Final EIR estimated daily operational emissions were compared to the applicable significance of thresholds. The daily operational emissions for the current Project (see Table 3-2) are much lower than the daily operational emissions from the Final EIR due largely to lower expected daily vehicle trip rates and to lower motor vehicle emissions factors for year 2020 compared to year 2005, the current and previously expected year of operation.

The proposed Project would be comparable to the Mitigation Alternative (project size and land use type) evaluated in the Final EIR Second Amendment, and would not include any features or components that would alter the conclusions of the previous environmental analysis. Thus, the proposed Project construction activities and operations would not result in new or substantially more severe air quality impact than were previously evaluated in the 2005 EIR. The Final EIR identified one mitigation measure to reduce identified construction-related air quality impacts. Previously adopted Mitigation Measure 5.6-3 (Construction Dust Controls) would continue to apply to the proposed Project.

3-d) Although the Final EIR found that dust generation during project construction could cause potential significant adverse health impacts on nearby residential receptors (Impact 5.6-3 – Impacts to Sensitive Receptors), it did not perform a health risk assessment or otherwise quantify these potential impacts. As noted above, the Final EIR concluded that implementation of previously adopted Mitigation Measure 5.6-3 would reduce the impact to a less-than-significant level. The Final EIR Second Amendment stated that an impact analysis concerning the potential health risks was not completed because the issue was an emerging concern with no official standard or criteria.

2017 Air Quality Assessment Update

The current BAAQMD *CEQA Air Quality Guidelines* requires an assessment of air toxics impacts on sensitive receptors. Therefore, as part of this Addendum, the estimated health risks associated with the proposed Project were compared to the current thresholds of significance to determine potential health impacts. The current BAAQMD *Air Quality Guidelines* also requires an assessment of $PM_{2.5}$ concentrations as a result of the proposed Project construction exhaust emissions. The proposed Project would constitute a new emission source of toxic air contaminants (TACs), such as diesel particulate matter (DPM) as well as $PM_{2.5}$, due to its construction activities.[16] Studies have demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. The proposed Project would also locate sensitive receptors near existing roadways, which are an emission source of DPM and

[16] In 1998, CARB classified diesel particulate matter as a toxic air contaminant, citing its potential to cause cancer and other health problems. The USEPA concluded that long-term exposure to diesel engine exhaust is likely to pose a lung cancer hazard to humans and can also contribute to other acute and chronic health effects.

$PM_{2.5}$. Therefore, a health risk assessment (HRA) was conducted to address construction activities associated with the proposed Project and the siting of new receptors near existing emission sources, focused on DPM and $PM_{2.5}$ emissions. Although lead agencies are no longer required to analyze the impacts of existing environmental conditions on a project's future users or residents, pursuant to a California Supreme Court ruling in *California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015, Case No. S213478), they have the discretion to do so for informational purposes or to assess consistency with local regulations and policies. Marin County has elected to disclose the potential health risk impacts to future residents of the proposed Project for informational purposes.

Health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. Individual cancer risk is the likelihood that a person exposed to air toxic concentrations over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. A maximally exposed individual (MEI) represents the worst-case risk estimate, based on a theoretical person continuously exposed for a lifetime at the location of highest air concentration. This is a highly conservative assumption, since most people do not remain at home all day and on average residents change residences every 11 to 12 years. In addition, this assumption assumes that residents are experiencing outdoor concentrations for the entire exposure period, which provides an overestimate of the exposure.

Health Impacts on Existing Residences

BAAQMD's *Recommended Methods for Screening and Modeling Local Risks and Hazards* and *Screening Tables for Air Toxics Evaluation During Construction* were used to estimate the minimum distance required between the fence line of the Project construction site and the nearest sensitive receptor to ensure that cancer and non-cancer risks associated with the Project would be less than significant per the BAAQMD significance thresholds.[17] The minimum offset distances are based on the number of residential apartments and facility square footage. The proposed Project would include 132 residential apartments within a 104,144 square feet facility.

Based on these Project characteristics and the BAAQMD screening guidance, the minimum offset distance between the Project and the nearest sensitive receptor would be required to be 200 meters for cancer risks, 21 meters for chronic (long-term such as annual) health impacts, 103 meters for acute (short-term such as one-hour) health impacts, and 171 meters for $PM_{2.5}$ concentrations. Therefore, the required offset distance for the proposed Project is 200 meters. The nearest sensitive receptor (located to the west) to the building construction would be 300 meters, which is beyond the minimum offset distance. Thus, the proposed Project construction health impacts would be less than significant in association with the facility construction.

---

[17] Bay Area Air Quality Management District, *Screening Tables for Air Toxics Evaluation During Construction,* May 2010. Accessed December 11, 2017 at http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/CEQA_Construction_Screening_Approach.ashx [MAY 2017 VERSION?]

BAAQMD *Screening Tables for Air Toxics Evaluation During Construction* does not include minimum offset distance estimates for roadway and bridge construction. The bridge construction would be within 30 meters of nearby sensitive receptors (residences). No schools or day care centers exist within 1,000 feet of the Project site. However, California Office of Environmental Health Hazard Assessment (OEHHA)'s *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*[18] does not recommend a health risk assessment for construction activities of less than two months.

The proposed Project bridge construction is a short-term construction project that would use diesel construction equipment intermittently and would not generate substantial TAC emissions. The general wind flow is from the north to south or southwest to northeast, which is not in alignment with the nearby sensitive receptors and the Project site. The bridge construction is located to the southeast of the nearest receptors and thus, the general wind flow is not frequently from the Project site to the receptors.

The Final EIR did not evaluate health impacts due to the previous project. Nevertheless, as shown, the proposed Project construction activities would result in a less-than-significant health impact on existing nearby residences.

Health Impacts on Proposed Project Residences

The BAAQMD's *CEQA Air Quality Guidelines* also include standards and methods for determining the significance of cumulative health risk impacts. The method for determining cumulative health risk requires the tallying of health risks from permitted stationary sources, major roadways, and any other identified substantial TAC sources in the vicinity of a project site (i.e., within a 1,000-foot radius) and then adding the individual sources to determine whether the BAAQMD's cumulative health risk thresholds are exceeded. No existing stationary permitted sources are located near the proposed Project. However, U.S. Highway 101 is located within 1,000 feet of the proposed Project and thus, was included in the cumulative health impact analysis.

BAAQMD has developed a geo-referenced database of roadways throughout the San Francisco Bay Area and has developed the *Highway Screening Analysis Tool* for estimating cumulative health risks from roadways such as Highway 101. Using this tool, it was determined that the maximum cancer risk associated with the proposed Project receptors from Highway 101 would be 69.0 cancers per million people, which would be below the BAAQMD cumulative significance threshold of 100 per million for new receptors. The maximum $PM_{2.5}$ concentrations associated with the proposed Project receptors from Highway 101 would be 0.27 micrograms per cubic meter ($\mu g/m^3$), which is well under the cumulative significance threshold of 0.80 $\mu g/m^3$.

Based on the results summarized above, the proposed Project would have a less-than-significant health impact on proposed residents.

---

18 Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February 2015. Accessed December 11, 2017 at http://oehha.ca.gov/air/hot_spots/hotspots2015.html.

3-e) The Final EIR described a less-than-significant odor impact: Impact 5.6-4 (Odors). The Final EIR concluded that the project would not generate odors nor would the project site be located in an area with known sources of odors. The Final EIR Second Amendment determined that air quality impacts from the Mitigation Alternative would be similar to those described in the Final EIR.

2017 Air Quality Assessment Update

According to BAAQMD's current (May 2017) *CEQA Air Quality Guidelines*, odor impacts could result from siting a new odor source near existing sensitive receptors or siting a new sensitive receptor near an existing odor source. Though offensive odors rarely cause any physical harm, they still remain unpleasant and can lead to public distress and citizen complaints. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant impact. With respect to the proposed Project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect a substantial number of people, or to persist for a substantial length of time. Therefore, odor impacts associated with the proposed Project on existing sensitive receptors would be less than significant.

Odor impacts could also result from siting a new sensitive receptor near an existing odor source. As discussed in Section 4.3, although CEQA is no longer required to analyze the impacts of odor on a proposed project, the County is providing this discussion for informational purposes. Examples of land uses that have the potential to generate considerable odors include, but are not limited to wastewater treatment plants, landfills, refineries, and chemical plants. In the current BAAQMD *CEQA Air Quality Guidelines*, odor screening distances are recommended for a variety of land uses. Projects that would site a new receptor farther than the applicable screening distance from an existing odor source would not likely result in a significant odor impact. The odor screening distances are not used as absolute screening criteria, rather as information to consider along with the odor parameters and complaint history. The odor screening distances for a sewage treatment plant, refinery, and chemical plant are 2 miles. The proposed Project is not within the odor screening distances for a sewage treatment plant, refinery, or other odor producing sources. Redwood Landfill is located more than 9 miles to the north and has no potential to produce odors at the Project site.

For all of the preceding considerations, the proposed Project would not result in new or substantially more severe odor impact than was previously evaluated in the 2005 EIR.

2005 EIR Mitigation Measures

The 2005 EIR identified one mitigation measure to reduce identified air quality impacts, which was adopted and made a condition of project approval. Previously adopted Mitigation Measure 5.6-3 would continue to apply to the proposed Project.

Mitigation Measure 5.6-3 (Condition of Approval No. 43): Master Plan approval should be conditioned to require contractors to incorporate measures to reduce dust and equipment exhaust emissions into construction plans. Emissions from construction activities can be greatly reduced by implementing dust control measures. The significance of construction impacts to air quality is typically determined based on the control measures that will be implemented. Implementation of the following measures would reduce dust impacts associated with grading and new construction to a less-than-significant level:

- All active construction areas shall be watered at least twice daily and more often during windy periods. Active areas adjacent to residences should be kept damp at all times.
- All hauling trucks shall be covered or at least two feet of freeboard shall be maintained.
- Pave, apply water three times daily, or apply (non-toxic) sol stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas and sweep streets daily (with water sweepers) if visible soil materials is deposited onto the adjacent roads.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas that are inactive for ten days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles.
- Limit traffic speeds on any unpaved roads to 15 miles per hour (mph).
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel washers for all existing trucks, or wash off the tires of all trucks and equipment leaving the site.
- Install wind breaks, plant trees/vegetative wind breaks on windward side(s) of construction areas.
- Suspend excavation and grading activity when winds cause dust clouds to extend beyond the construction site and affect nearby land uses.
- Limit the area subject to excavation, grading, and other construction activity at any one time.
- Properly maintain construction equipment and avoid unnecessary idling near residences.

- Designate a disturbance coordinator that would respond to complaints regarding construction related air quality issues. The phone number for this disturbance coordinator shall be clearly posted at the construction site.

Current BAAQMD's *CEQA Air Quality Guidelines* require best management practices to control fugitive dust and exhaust emissions. These *BAAQMD Required Dust Control Measures* and *BAAQMD Required Basic Exhaust Emissions Reduction Measures* are covered within the mitigation measures found in previously adopted 2005 EIR Mitigation Measure 5.6.3.

Conclusion

The proposed Project would be comparable (in size and land use type) to the project evaluated in the Final EIR Second Amendment, and would not include any features or components that would alter the conclusions of the previous environmental analysis. Implementation of the proposed Project would not result in any new or substantially more severe impacts on air quality than those previously evaluated in the 2005 EIR.

4. Biological Resources

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
4. Biological Resources. Would the Project:					
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Final EIR pgs 5.3-28–5.3-29; Final EIR Second Amendment, pg. 11	No	No	Yes, an updated assessment of biological resources was prepared.	Yes, with revisions to address new impacts.
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	Final EIR pgs 5.3-22–5.3-23, and 5.3-24–5.3-27; Final EIR Second Amendment pgs 9-10	No	No	Yes, an updated assessment of biological resources was prepared but no new significant impacts were identified.	Yes, with minor modifications that do not substantially differ from those included in the EIR.
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of	Final EIR pgs 5.3-24– 5.3-26; Final EIR Second Amendment, pg. 10	No	No	Yes, an updated assessment of biological resources was	Yes, with minor modifications that do not substantially

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
4. Biological Resources. Would the Project:					
the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				prepared but no new significant impacts were identified.	differ from those included in the EIR.
d. Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Final EIR pgs 5.3-24-27, 5.3-29; Final EIR Second Amendment pgs 10-11.	No	No	Yes, an updated assessment of biological resources was prepared but no new significant impacts were identified.	Yes, with minor modifications that do not substantially differ from those included in the EIR
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Final EIR pgs 5.3-19 and 5.3-26; Final EIR Second Amendment pg 10.	No	No	Yes, an updated assessment of biological resources was prepared but no new significant impacts were identified.	Yes, with minor modifications that do not substantially differ from those included in the EIR
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Final EIR pg 5.3-16 (only addressed in thresholds of significance)	No	No	No	n/a

Discussion

4-a) The Final EIR Impact 5.3-7 described effects of the project on special-status plant and animal species, dispersal habitat of special-status turtle, frog, steelhead, and shrimp species, and nesting and foraging habitat for raptors and special-status birds. It concluded that the project would result in no direct effects to special-status species, and that essential habitat for special-status species was absent. The Final EIR found that construction of the Miller Creek bridge could affect dispersal habitat for western pond turtle, California red-legged frog, foothill yellow-legged frog, steelhead and California freshwater shrimp, but implementation of previously adopted Mitigation Measures 5.3-4(c) (minimization of disturbance to Miller Creek during bridge construction) and 5.3-6 (maintain fish and wildlife movement under/around Miller Creek bridge) which would require minimization of disturbance of Miller Creek and riparian vegetation would also

alleviate potential adverse impacts on those species. Effects of the project on foraging habitat for bird species of concern were considered to be less-than-significant.

Potential impacts to nesting raptors were addressed in Impact 5.3-7 of the 2005 EIR, but it did not address potential impacts to the nests of other special-status birds afforded protection under the Migratory Bird Treaty Act (MBTA). With implementation of previously adopted Mitigation Measure 5.3-7 (avoidance of nesting raptors), impacts on the nests of raptors would less-than-significant.

The Final EIR Second Amendment determined that the Mitigation Alternative was not expected to have any new significant impacts on special-status species.

2017 Biological Resources Assessment Update

WRA prepared an updated biological resources assessment (BRA) for the current Project in 2017 to determine whether any newly recognized potential sensitive habitat areas or special-status plant and animal species that may not have been included in the 2005 EIR have potential to occur in the vicinity of the Study Area, and to assess if there are any new or significant impacts to biological resources based on the revised Project design.[19] The 10.43-acre Study Area addressed in the BRA includes the proposed Project site and a 20-foot buffer around the limit of disturbance of the Project. Because the EIR Study Area includes the BRA Study Area, impacts and mitigation measures described in the EIR are applicable to the current Project, with the exception of some wildlife species and minor modifications to some mitigation measures that do not substantially differ in effect from those described in the EIR.

Figure BR-1 (Figure 2 of the BRA) illustrates and Table 4-1 summarizes the area of each biological community type observed in the Study Area. Section 4 of the BRA provides a description of biological communities.

[19] WRA, *Biological Resources Assessment Update, The Oaks Senior Living Community: a Residential Care Facility Project, Marin wood, Unincorporated Marin County, California*, June 2017.

Table 4-1. Summary of Biological Communities in the Study Area

Community Type	Area (acres or square feet)
Non-Sensitive	
Developed	0.03 ac
Broom patch	0.19 ac
Non-native grassland	7.04 ac
Coast live oak woodland	1.73 ac
Sensitive[20]	
Perennial Stream (Miller Creek)	0.15 ac
Riparian coast live oak woodland	0.29 ac
Purple needlegrass grassland	1.01 ac
Seasonal wetland	264 sq. ft. (0.006 ac)

The BRA and this Addendum employ a broader definition of special-status species that is consistent with current CEQA analyses than was relied upon in the EIR.21 The definition of special-status species considered in this Addendum is based on the definitions used in the 2005 EIR as well as California Department of Fish and Wildlife (CDFW) Species of Special Concern (SSC), CDFW California Fully Protected species (CFP), U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern (BCC), and CDFW Special-status Invertebrates. Bat species named as a "High Priority" or "Medium Priority" species by the Western Bat Working

[20] Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Federal Clean Water Act (CWA); state regulations such as the Porter-Cologne Act, Section 1600-1616 of the CFGC, CEQA; Habitat Conservation Plans (HCPs) or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

[21] Special-status species include officially designated: rare, threatened or endangered and candidate species for listing by the CDFG; threatened or endangered and candidate species for listing by the USFWS; species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines; and possibly other species considered sensitive or of special concern due to limited distribution or lack of adequate information. See a full description of the definition on page 5.3-8.

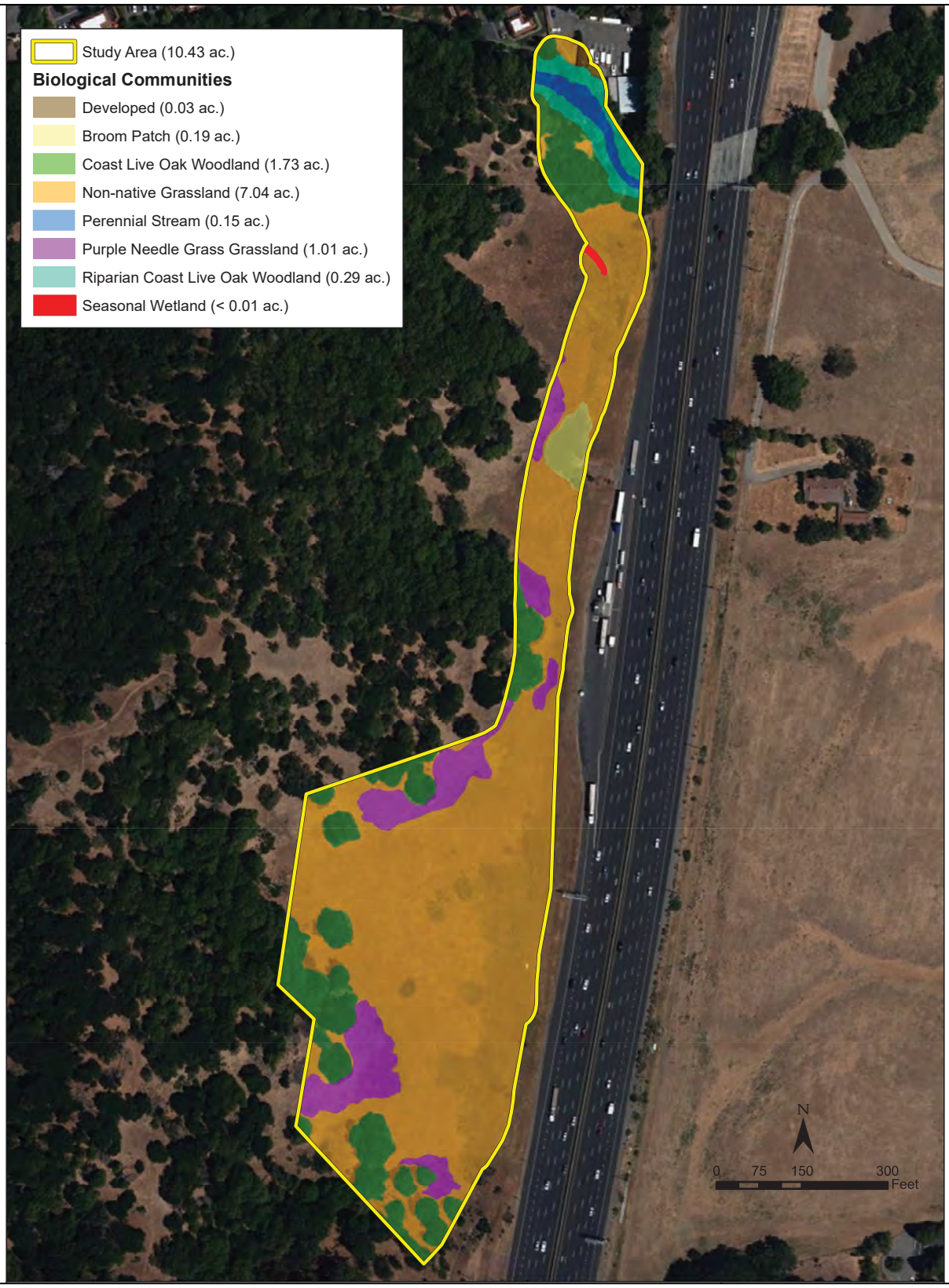


Figure BR-1

Biological Communities

Source: WRA Environmental Consultants

Group (WBWG) are also considered special-status species. Most native birds are protected by the Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code sections 3503, 3503.5 and 3513. Under these laws, deliberately destroying active bird nests, eggs, and/or young is illegal. The Fish and Game Code also protects bat species (including non-status species) and their roosting habitats; relevant sections include California Fish and Game Code sections 86; 2000; 2014; 3007; 4150, as well as Title 14 of California Code of Regulations.

Plant species included within the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory) with California Rare Plant Rank (Rank) of 1 and 2 are considered special-status plant species, and Rank 3 and 4 plant species are also considered in this Addendum.

An updated literature review was conducted for the BRA, followed by a site assessment site visit to map biological communities and assess potential for special-status species to occur in the Study Area. An additional site assessment was conducted during a peer review of the BRA that was completed in support of this Addendum.[22]

Special-Status Plants

As confirmed by the BRA, of the 93 special-status plant species known to occur in the vicinity of the Study Area, five have a moderate or high potential to occur, primarily due to the presence of grassland habitat and proximity to documented occurrences. The five species with potential to occur are Napa false indigo (*Amorpha californica* var. *napensis*) (CNPS Rank 1B), bent-flowered fiddleneck (*Amsinckia lunaris*) (CNPS Rank 1B), California bottle-brush grass (*Elymus californicus*) (CNPS Rank 4), congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*) (CNPS Rank 1B), Mt. Diablo cottonweed (*Micropus amphibolus*) (CNPS Rank 3) and marsh microseris (*Microseris paludosa*) (CNPS Rank 1B). A total of three site visits were conducted covering the documented bloom period of all species with potential to occur within the Study Area.[23] While Mt. Diablo cottonweed was observed in seven locations scattered throughout the larger project area during 1996 surveys reported in the EIR, they were not observed during the surveys reported in the BRA nor were any other special-status plant species observed within the Study Area.

The remaining 88 species, including those reported in the EIR to occur in the project vicinity are either unlikely or have no potential to occur within the Study Area due to a lack of suitable habitat.

---

22 Mosaic Associates, *Peer Review of Biological Resources Assessment, Oaks Senior Living Community, Marinwood, Unincorporated Marin County, CA*, November 27, 2017.

23 WRA surveyed the Study Area in August 2015, and March and April 2016.

The 2017 BRA does not identify new information about the site that was not previously disclosed in the 2005 EIR, nor does it identify any new significant impacts to special-status plant species. Implementation of the proposed Project would not result in any new or substantially more severe significant impacts to special-status plants and no new mitigation measures are warranted.

Special-Status Wildlife

A total of 19 special-status wildlife species were identified as potentially occurring in the Study Area in the Final EIR. The updated analysis completed in the BRA concluded that no new species have potential to occur within the Study Area and that only nine of the 19 identified in the EIR have potential to occur in the Study Area, including:

- western mastiff bat (*Eumops perotis californicus*), SSC
- pallid bat (*Antrozous pallidus*), SSC
- Townsend western big-eared bat (*Corynorhinus townsendii*), SSC
- golden eagle (*Aquila chrysaetos*), BCC, CFP
- white-tailed kite (*Elanus leucurus*) , CFP
- prairie falcon (*Falco mexicanus*), BCC
- peregrine falcon (*Falco peregrinus*) , BCC, CFP
- loggerhead shrike (*Lanius ludovicianus*) , BCC, SSC
- Central California Coast steelhead (*Oncorhynchus mykiss*), FT

Three of the species listed in the 2002 EIR no longer have a designation from CDFW or USFWS and are not considered special-status, including:

- Cooper's hawk (*Accipiter cooperii*)
- sharp-shinned hawk (*Accipiter striatus*)
- California horned lark (*Eremophila alpestris actia*)

The remaining seven special-status wildlife species identified in the Final EIR do not have potential to occur due to a lack of suitable habitat and/or lack of connectivity to suitable habitat associated with nearby occurrences, the history of human disturbance that would deter occupancy, and the Study Area being outside the documented nesting range. Those species are:

- California freshwater shrimp (*Syncaris pacifica*)
- California tiger salamander (*Ambystoma tigrinum californiense*)
- California red-legged frog (*Rana draytonii*)
- western pond turtle (*Emys marmorata*)
- foothill yellow-legged frog (*Rana boylii*)

- burrowing owl (*Athene cunicularia*)
- American badger (*Taxidea taxus*)

No newly listed or additional special-status species have a high or moderate potential to occur within the Study Area.

The 2017 BRA updates the analysis of the Project's impacts on special-status bats, birds, steelhead, and steelhead habitat based on an assessment of existing conditions in the Study Area and through the application of current standards of practice in biological impact analysis. Updated text for Impact 5.3-7 (Impacts on Special-status Plant and Animal Species) is provided below.

Special-Status Bats

While the 2005 EIR concluded that roosting habitat for special-status bats was either absent (no maternity roosting habitat for pallid bat; no roosting habitat for California mastiff bat) or marginal (Townsend's big-eared bat), the 2017 BRA determined that suitable roosting habitat for pallid bat, western mastiff bat, and Townsend big-eared bat is present within portions of the oak and riparian woodland found within the Study Area. Foraging may also take place over the aquatic and open grassland habitats found throughout the Study Area. Oak woodland and riparian preservation and avoidance measures required per previously adopted Mitigation Measures 5.3-2(b) (protection and preservation of trees), 5.3-2(c) (preparation of tree protection guidelines by certified arborist), 5.3-2(d) (tree replacement program),of the EIR will benefit potential bat roost habitat. However, any removal of large trees or potentially suitable roost habitat to facilitate Project construction could adversely affect special-status bat species. Tree removal and roost disturbance could occur during the construction of such Project components as the roadways, buildings, and the bridge over Miller Creek. Additionally, the operation of loud machinery in the immediate vicinity of a maternity roost site could adversely affect the species by causing the parent to abandon the roost and/or by inducing elevated stress levels for the individuals occupying the maternity site. Although the 2005 EIR did not specifically address impacts to special-status bats, it addressed special-status animals. With minor modification, implementation of previously adopted Mitigation Measure 5.3-7 would mitigate potential impacts to special-status bats if they are found to occur on site, and this would not represent a new potentially significant impact that was not identified in the Final EIR. Implementation of new subsection (a) of previously adopted Mitigation Measure 5.3-7 would mitigate potentially significant impacts to special-status bats to a less-than-significant level should they occur on site.

Special-Status Birds

Several species of special-status birds have the potential to occur within the Study Area, and include: white-tailed kite, golden eagle, prairie falcon, peregrine falcon, and loggerhead shrike. Oak woodland and riparian preservation and avoidance measures required by previously adopted Mitigation Measures 5.3-2(b), 5.3-2(c), and 5.3-2(d) of the

EIR would benefit potential nesting bird habitat; however, implementation of the proposed Project would involve some impacts to oak and riparian woodland, non-native grassland, and vegetation along or adjacent to aquatic features within the Study Area.

The removal of terrestrial vegetation is likely to occur from Project activities including the creation and enhancement of roads, installation of buildings, installation of the bridge, and vegetation clearing, each of which has the potential to impact potential nesting and foraging habitat for avian species. The operation of construction machinery during breeding season could also cause disturbance to breeding birds, and could impact nesting activity. Special-status and other native bird species are protected during the nesting season by the MBTA and California Fish and Game Code. The Final EIR addressed impacts to raptor nests in active use but did not specifically address impacts to active nests of other special-status birds. Causing the abandonment or destruction of an active nest of special-status avian species would be a potentially significant impact that would be addressed through minor modification to previously adopted Mitigation Measure 5.3-7 from the 2005 EIR. Implementation of revised subsection (b) of previously adopted Mitigation Measure 5.3-7 would mitigate potentially significant impacts to special-status bird nests to a less-than-significant level should they occur on site.

Steelhead and Fish Habitat

The proposed Project has been designed to limit impacts to aquatic features in the Study Area. The Project would involve the installation of a bridge across Miller Creek that would result in the removal of riparian vegetation and work below top of bank. No work is planned to occur within the wetted channel.

The bridge installation would require the full or partial removal of two existing bridge footings that are remnant from an old bridge across Miller Creek that no longer exists. Removal of the old bridge footings is expected to increase the habitat functions and values of the creek. The new bridge footings would be installed above the creek channel but below the top of bank. Although riparian preservation and avoidance measures as required by previously adopted Mitigation Measures 5.3-4(c) and 5.3-6 would benefit steelhead and fish habitat within Miller Creek, the Project would also have negative impacts to fish habitat in Miller Creek similar to those previously identified.

Disturbance to the banks of Miller Creek is likely to occur during the removal of riparian vegetation, placement of the footings and bridge support, and installation of the bridge deck. Increased erosion and sediment input from bank disturbance could degrade stream habitat and result in elevated turbidity levels encountered by steelhead during rearing and migration. Additionally, the operation of construction equipment around and above the stream surface could result in the discharge or fuels, oils, or other contaminants. While no spawning habitat for steelhead occurs in the Study Area, the species may migrate through and seasonally rear in the perennial portions of Miller Creek. The Final EIR described potential adverse impacts and required implementation of previously adopted Mitigation Measures 5.3-4(c) and 5.3-6. Implementation of new subsection (c) of previously adopted

Mitigation Measure 5.3-7, in addition to previously adopted Mitigation Measures 5.3-4(c) and 5.3-6, would mitigate potentially significant impacts to steelhead and fish habitat to a less-than-significant level.

The 2017 BRA for the proposed Project updates but does not substantially differ from the information about the site disclosed in the 2005 EIR. The potential for impacts to special-status species is expanded to include special-status bat species, and new subsection (a) of previously adopted Mitigation Measure 5.3-7 has been identified to reduce potential impacts to bat species. Implementation of the updated mitigation requirements from the BRA in concert with the mitigation requirements set forth in the Final EIR would ensure that the Project would not result in new or substantially more severe impacts to special-status plant and animal species.

4-b) The Final EIR described a significant impact of the project on native grassland, a sensitive natural community present on the project site in Impact 5.3-3 (Native Grasslands), and concluded that the project would have a less-than-significant impact on Stream Conservation Areas (SCA's) and Riparian Habitat in Impact 3.3-5. Impact 5.3-6 (Disruption of Fish and Wildlife Habitat) did not specifically address the impact of the project on riparian habitat; however a significant impact conclusion was reached due in part to the need for substantial tree removal to build the bridge, which would be accomplished in riparian habitat. A significant impact on Freshwater Seeps and Wetlands was also described in Impact 5.3-4, in part due to potential erosion and degradation of wetland and riparian habitat. The Final EIR Second Amendment determined that these impacts would still apply to the Mitigation Alternative, and the associated previously adopted mitigation measures for the potentially significant impacts would still be required.

The Final EIR identified a minimum of 1.6 acres of native grassland with vegetation cover by native grasses of ten percent or greater that would be affected by the project. Native grassland species consisted primarily of purple needlegrass and California oatgrass. The Final EIR disclosed that an estimated 35 trees were to be removed to accommodate the Miller Creek crossing (Impact 5.3-2 Tree Removal and Woodland Impacts), although this was not described as an impact to riparian habitat. The Final EIR Second Amendment estimated that 23 trees would be removed to accommodate the proposed improvements under the Mitigation Alternative, with most of the trees to be retained in the vicinity of the proposed Wetland Mitigation Site where Building B was previously proposed, in comparison to the Previous Master Plan, where the trees to be retained were located at the Miller Creek crossing.

2017 Biological Resources Assessment Update

The effects of the current proposed Project on riparian habitat and other sensitive natural communities are described in the 2017 BRA. BRA Figures 5a Native Grassland Impacts and Mitigation; 5b Tree Impacts and Protection Plan; and 5c Seasonal Wetland and Riparian Impacts and Mitigation Plan illustrate the location of grassland and riparian woodland impacts. While the Project would reduce the loss of native grassland to 0.34 acres,

compared with 1.6 acres in the Final EIR, Impact 5.3-3 (Native Grassland) would still be considered significant because the impacted grassland, primarily purple needlegrass grassland is considered a sensitive plant community by CDFW.

The proposed Project would result in impacts to approximately 0.09 acre (0.5 acre permanent; 0.04 acre temporary) of riparian coast live oak woodland and potential removal of 19 riparian trees. This habitat is regulated by CDFW under Sections 1600-1616 of the CDGC. As such, Impact 5.3-2 (Tree Removal and Woodland Impacts) would continue to be considered to be potentially significant under CEQA for the proposed Project. Impact 5.3-4 (Disturbance to Freshwater Seeps and Wetlands) would also continue to be considered to result in a significant impact to riparian habitat. The impact to Stream Conservation Areas and Riparian Habitat described in Impact 5.3-5 of the EIR has not changed for the proposed Project.

The impacts of the proposed Project on native grassland, while reduced from the impact described in the Final EIR, would remain significant. Implementation of previously adopted Mitigation Measure 5.3-3 (grassland restoration and enhancement program) would reduce impacts to purple needlegrass grassland to a less-than-significant level. Impacts on riparian coast live oak woodland as characterized under Impacts 5.3-2, 5.3-4 and 5.3-6 would also be significant. Implementation of previously adopted Mitigation Measures 5.3-2(b)-(d), 5.3-4(a)-(c), and 5.3-6 would reduce impacts on riparian woodland to a less-than-significant level.

The proposed Project would not result in any new or substantially more severe significant impacts on riparian habitat or native grasslands than those identified in the Final EIR.

4-c) The Final EIR described a total of 2.62 acres of jurisdictional waters of the U.S. present on site, including 2.26 acres of freshwater seep wetlands and 0.356 acres of unvegetated other waters of the U.S. Impact 5.3-4 (Disturbance to Freshwater Seeps and Wetlands) of the Final EIR described the loss of an estimated 1.4 acres of scattered freshwater seep wetlands and 0.03 acres of unvegetated drainage ditches, as well as indirect changes associated with the increased potential for erosion and water quality degradation resulting from the proposed project. The Final EIR identified this as a significant impact. Wetland losses included an active spring and an estimated 0.62 acre of associated freshwater seep habitat in the southwest part of the site, with most of the seep habitat located in the vicinity of the proposed office area. Although 0.23 acres of seep habitat in the office area would be located outside the anticipated limits of grading, these areas could be inadvertently affected during construction. The Final EIR concluded that 0.64 acres of freshwater seep on the freeway reserve area in the southeast part of the site would not be directly affected by the project but eventually could be affected by proposed wetland mitigation or could be eliminated by future Highway 101/Lucas Valley Road interchange improvements.

The Mitigation Alternative addressed in the Final EIR Second Amendment would still have a significant impact on jurisdictional wetlands and unvegetated other waters, affecting an

estimated 1.39 rather than 1.43 acres under the 2002 EIR. This would include the active spring and an estimated 0.62 acres of associated freshwater seep habitat in the southwestern portion of the site, and approximately 0.64 acres of scattered seasonal wetlands near the proposed Building A.

Implementation of previously adopted Mitigation Measures 5.3-4(a)-(c) would reduce the impact of the project described in the Final EIR and the Final EIR Second Amendment to less than significant.

2017 Biological Resources Assessment Update

The 2017 BRA summarized an updated wetland delineation that was prepared for the Study Area encompassing the proposed Project site. Only one of the previously mapped wetland features, a small 0.015-acre seasonal wetland depression met all three wetland criteria after a very wet year (2016/17). The Study Area also contained approximately 0.15 acre (287.28 linear feet) of unvegetated waters of the U.S. in Miller Creek. Figure BR-1 (Figure 2 from the BRA) shows biological communities within the Study Area, including seasonal wetland and perennial stream.

The proposed Project would permanently impact 0.006 acre of seasonal wetland. Even this small amount of fill of the wetland is regulated by and would require permits from the U.S. Army Corps of Engineers (Corps) under Section 404 of the federal Clean Water Act (CWA), and the San Francisco Bay Regional Water Quality Control Board (RWQCB) under both Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Wetland impacts are shown on Figure BR-2 (Figure 5c from the BRA).

The Project also includes the construction of a free-span bridge over Miller Creek, which would result in 0.02 acre of permanent shading impacts to the creek waters below the Ordinary High Water Mark (OHWM), potentially regulated by the CDFW and RWQCB. Construction of the Project would also cause temporary impacts to approximately 0.04 acre of the perennial stream (under Corps/RWQCB/CDFW jurisdiction) that would result from the removal of two existing abutments located at or below the OHWM. Bridge construction will also result in 0.08 acre of permanent impacts and 0.03 acres of temporary impacts to riparian habitat within RWQCB and CDFW jurisdiction.

The extent of freshwater seep wetlands within the Study Area for the proposed Project has shrunk from what was described in the Final EIR. While considerably reduced from the impacts described in the Final EIR, the impacts of the Project to seasonal wetland habitat and other waters of the U.S. would still be considered significant. With implementation of previously adopted Mitigation Measures 5.3-4(a)-(d), updated from the Final EIR as consistent with current practice, the impact of the Project would be rendered less-than-significant. The proposed Project would not result in any new or substantially more severe impacts to wetlands than were evaluated in the 2005 EIR.

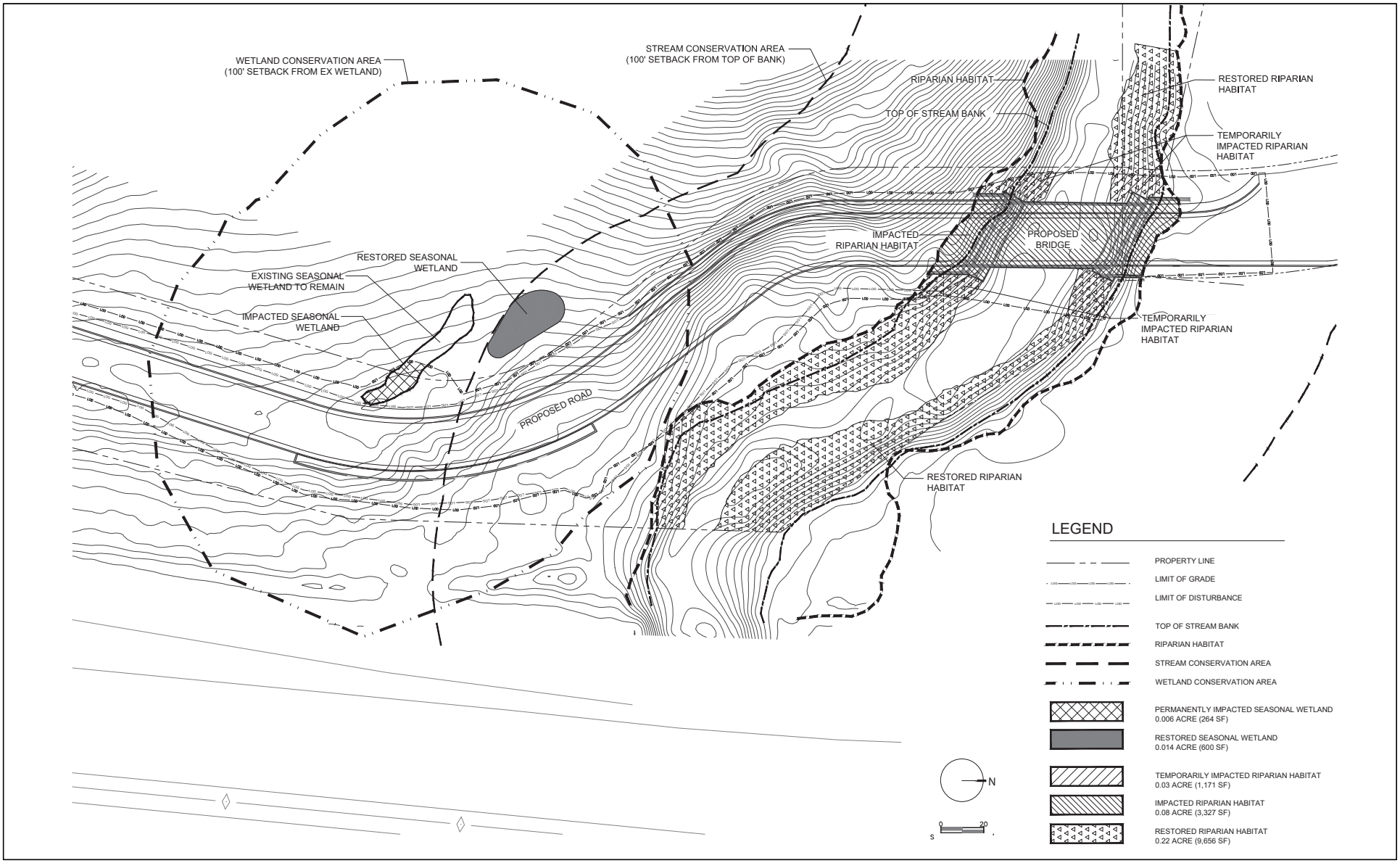


Figure BR-2

Seasonal Wetland & Reparian Impacts & Mitigation Plan

Source: WRA Environmental Consultants

4-d) The Final EIR addressed potential impacts of the project on wildlife movement and corridors in Impact 5.3-4 (Disturbance to Freshwater Seeps and Wetlands), Impact 5.3-6 (Disruption of Fish and Wildlife Habitat), and Impact 5.3-8 (Cumulative Development). The project would alter existing patterns of wildlife use on developed portions of the site by replacing grassland, freshwater seeps, and the fringe of woodland habitat with new buildings, roadways, and other paved surfaces and landscaping. Small resident wildlife would be eliminated from graded areas while larger wildlife species would avoid using disturbed areas during construction. Miller Creek would continue to provide a source of drinking water for wildlife and the improvements would not restrict access to the creek corridor. The Final EIR determined that the bridge crossing, possible use of night-lighting along the path, tree removal to build the bridge, and construction of a drop structure or other impediment under the bridge could have a significant effect on the habitat value of the creek, if included as part of the project. Bridge design and construction could largely avoid significant disturbance of the Miller Creek corridor. The EIR concluded that protection of Miller Creek was expected to preserve its function as a movement corridor for fish and wildlife.

The Final EIR Second Amendment identified no new significant impacts on wildlife resources, although it noted that the Miller Creek crossing could still affect sensitive habitat along this important fish and wildlife corridor. Implementation of previously adopted Mitigation Measure 5.3-6 would be required to reduce impacts on wildlife resources associated with Miller Creek to less-than-significant levels.

2017 Biological Resources Assessment Update

The 2017 BRA updated impact analysis identified the potential for the proposed Project to impact maternity roost sites for special-status bat species if present on site. Any removal of large trees or potentially suitable roost habitat to facilitate Project construction could impact special-status bats. The operation of loud machinery in the immediate vicinity of a maternity roost site could impact the species by causing the parent to abandon the roost or induce elevated stress levels for the individuals occupying the maternity site.

The 2017 BRA also updated the potential impact of the Project on breeding birds, noting that the operation of construction machinery during the breeding season could cause disturbance to breeding birds and could impact nesting activity. (Impacts to nesting birds are also discussed above in Item 4-a.) No other new significant impacts on wildlife movement, movement corridors or nursery sites were identified.

Although impacts to a bat maternity roost and disturbance to breeding birds and nesting activity would be a significant impact, the Final EIR addressed potential impacts to special-status species, and implementation of new subsection (a) of previously adopted Mitigation Measure 5.3-7 would reduce potential impacts to bats to a level of less-than-significant. Therefore, with incorporation of revised Mitigation Measure 5.3-7, the proposed Project would not result in any new or substantially more severe impacts to wildlife corridors or nursery sites than were evaluated in the 2005 EIR.

4-e) The Final EIR addressed requirements of Marin County Development Code Chapter 22.27 and Stream Conservation Area (SCA) policies of the *Marin Countywide Plan*. Development Code Chapter 22.27 regulates removal of protected trees, which are generally native species with trunk diameters of either six or ten inches, depending on species. All of the trees to be removed as part of the project would meet the County's definition as protected trees, and a permit for tree removals would be required.

The Stream Conservation Area policies of the *Marin Countywide Plan* require provision of setbacks from the tops of stream banks and restoration and enhancement as part of development. Project development would be located outside of and would not affect the SCA designated along the Miller Creek corridor. New stream crossings, such as the bridge across Miller Creek are allowed within SCAs.

The Final EIR concluded that the project did not conflict with local policies or ordinances protecting biological resources. It determined that implementation of previously adopted Mitigation Measure 5.3-2 (b)-(e) would reduce impacts to protected trees to a level of less than significant. The project would not affect the SCA designated along the Miller Creek corridor.

The Final EIR Second Amendment found that the Mitigation Alternative was not in conflict with any local policies or ordinances protecting biological resources.

2017 Biological Resources Assessment Update

The 2017 BRA updated assessment reported that the proposed Project would potentially remove 50 trees in total, 39 of which are protected under Marin County Development Code Chapter 22.27, for which mitigation would be provided through implementation of previously adopted Mitigation Measure 5.3-2 (b)-(e), which would still apply to the current Project. No new impacts to the SCA would result from the proposed Project. The Project would not conflict with any local policies or ordinances protecting biological resources.

4-f) No Habitat Conservation Plan, Natural Community Conservation Plan or other local, regional, or state habitat conservation plan has been adopted for Marin County. The Final EIR criteria for significance of biological resources notes that such a conflict would be considered significant, but because no such plans have been adopted, no further discussion is provided. The conclusion of the Final EIR would still be valid for the proposed Project, which would have no impacts related to conflicts with an adopted habitat conservation plan.

2005 EIR Mitigation Measures

The 2005 EIR identified 12 mitigation measures to reduce identified biological resource impacts, which were adopted and made conditions of project approval. Previously adopted mitigation measures from the Final EIR, including 5.3-1(a) (Landscape and Vegetation Management Plan), 5.3-1(b) (prohibition on vehicle travel off designated roadways), 5.3-2(b) (protection and preservation of trees), 5.3-2(c) (preparation of tree protection guidelines by certified arborist),

5.3-2(d) (tree replacement program), 5.3-4(c) (minimization of disturbance to Miller Creek during bridge construction), 5.3-6 (maintain fish and wildlife movement under/around Miller Creek bridge), 5.3-7 (avoidance of nesting raptors), and most of 5.3-3 (grassland restoration and enhancement program) would continue to apply to the proposed Project. Due to changes in the proposed Project, previously adopted Mitigation Measure 5.3-2(a)(revise building envelope in residential area layout to minimize tree removal) and a portion of previously adopted Mitigation Measure 5.3-3 (native grassland restoration pertaining to deed restrictions on individual lots) from the EIR are no longer applicable and thus are not included below. In addition, the Hydrology and Drainage section of the 2005 EIR identified two mitigation measures to reduce site erosion and downstream sedimentation and flooding impacts: Mitigation Measures 5.2-7 and 5.2-8, both of which would continue to apply to the proposed Project.

Mitigation Measure 5.3-1(a) (Condition of Approval No. 28): A qualified landscape architect should prepare a detailed Landscape and Vegetation Management Plan in consultation with a plant ecologist experienced in management of native species.[24] This Landscape and Vegetation Management Plan should be incorporated into the Final Landscape Plan prepared as a part of the Precise Development Plan. The plan should: I) provide for re-establishment of native vegetation on graded slopes around the fringe of proposed development; 2) provide details on native plantings associated with proposed restoration, enhancement, and mitigation; 3) establish a program to salvage suitable native plants for use in landscaping and revegetation; 4) identify unsuitable species which should not be used in landscaping; 5) control the establishment and spread of introduced broom; and 6) specify long-tern management provisions to ensure re-establishment of landscape improvements. Aspects of the plan should include the following:

- Landscaping and revegetation should emphasize the use of native plant species along the fringe of proposed structures and grading. Plant lists should be expanded to include valley oak *(Quercus lobata),* California buckeye *(Aesculus californica),* California rose *(Rosa californica),* common rush *(Juncus patens),* creeping wildrye *(Leymus triticoides*), purple needlegrass *(Nassella pulchra),* iris-leaved rush *(Juncus xiphioides),* and slender rush *(Juncus tenuis).*
- Suitable tufts of native grasses to be removed by the project should be salvaged before grading and used in landscaping and revegetation, providing a source of mature plants and re-establishing much of the desirable local cover which otherwise would he lost with development The anticipated limits of grading should be flagged, and plant material suitable for use in the salvage program should be marked, carefully removed, and stored. The salvage material should be transplanted to selected mitigation areas at the appropriate time of the year before grading (generally in October and November), with maintenance provided as necessary to ensure reestablishment.
- Non-native ornamental species used in landscape plantings should be restricted to the immediate vicinity of streets and development areas on residential lots on Parcel I and the parking lots and buildings on Parcel 2. The landscape plan should prohibit use of

[24] Note: A Vegetation Management Plan has already been prepared by the current Project applicant. See Urban Forestry Associates, Inc., *Vegetation Management Plan for The Oaks Assisted Living Facility Development Project,* August 16, 2016.

invasive non-native species which may spread into adjacent undeveloped areas. Unsuitable species include blue gum eucalyptus *(Eucalyptus globulus),* acacia *(Acacia* spp.), pampas grass *(Cortaderia selloana),* broom *(Cytisus* and *Genista* spp.), gorse *(U/ex europaeus),* bamboo *(Bambusa* spp.), giant reed *(Arundo donax),* English ivy *(Hedera helix),* German ivy *(Senecio milanioides),* and periwinkle *(Vinca* sp.), among others.

- Species planted adjacent to retained woodlands should be native to the site, and "other trees offering seasonal color" should be eliminated from the Conceptual Landscape Plan.
- Graded slopes and area disturbed as part of the project should be monitored to prevent establishment and spread of French and Scotch broom. Removal und monitoring should include annual late winter removal of any rooted plants when soils are saturated and cutting back of any remaining flowering plants in the spring before seed begins to set in late April.
- The landscape plan should specify provisions to maintain landscaping and graded slope revegetation with replacement plantings and seeding for a minimum of five years to ensure reestablishment of cover.

Mitigation Measure 5.3-1(b) (Condition of Approval No. 29): Vehicles and motorcycles should not be allowed to travel off designated roadways to prevent further disturbance to grassland cover and other vegetation. Barriers should be provided where vehicular access to open space areas may be possible.

Mitigation Measure 5.3-3 (Condition of Approval No. 34): A grassland restoration and enhancement program should be required to mitigate the loss of native grasslands disturbed by proposed development which provides for replacement of native grasslands at a 1:1 ratio, meets or exceeds the cover class lost, and emphasizes the use of purple needlegrass and California oatgrass. A qualified plant ecologist experienced in grassland restoration using native grasses should prepare the program. The grassland program should be included as a component of the Landscape and Vegetation Management Plan required for the project by Mitigation Measure 5.3.1(a) and should be implemented as part of site revegetation and landscaping. Provisions of the grassland program should include the following:

- Native grasslands disturbed by proposed development should be restored and replaced at a minimum 1:1 ratio with replacement provided on a per acre basis for each cover class lost. Success criteria for replacement should provide for establishment of native grasslands which meet or exceed the cover class of the existing stands lost as a result of development.
- Replacement grasslands should be consolidated to the degree feasible to improve the value of the currently scattered stands, expanding the extent of native grasslands in the proposed open space in the southern part of the site, and used to revegetate the graded slopes above the proposed office area and recommended wetland mitigation area.
- Prior to construction, the boundary of proposed grading within or adjacent to stands of native grasslands to be preserved should be clearly staked with color-coded flags set at 50-foot intervals, and disturbance from construction equipment operation, storage, or other activities should be prohibited inside the delineated "no disturbance zone". Native

grasslands within the limits of grading should be considered as possible salvage material to be used in the replacement program.

- Tree plantings shown in the Conceptual Landscape Plan and replacement plantings required for anticipated tree removal should be restricted to outside the existing and restored native grasslands.
- The program should identify the on-site mitigation areas and acreage, specify performance criteria, maintenance, and long-term management responsibilities, monitoring requirements, and contingency measures, and define site preparation, revegetation procedures, and an implementation schedule.

Mitigation Measure 5.3-6 (Condition of Approval No. 38): The following measure would be required to mitigate impacts on wildlife resources:

Disturbance within the Miller Creek corridor on the site should be minimized to protect its function for fish and wildlife movement. The proposed bridge or arched culvert crossing should be designed to avoid impeding movement of fish and wildlife along the creek channel, and drop structures under the bridge should be prohibited. Improvements to the existing creekside path should be limited to stabilizing and possibly surfacing, and lighting should be prohibited along the path to minimize disrupting creek use by wildlife at night.

Revised Mitigation Measures

Mitigation measures that have been revised from those presented in the EIR include 5.3-2(a), 5.3-2(d), 5.3-4(a), 5.3-4(b), 5.3-4(c), 5.3-4(d), 5.3-7(a), 5.3-7(b) and 5.3-7(c). New or revised text is underlined and deleted text is shown in ~~strikethrough~~. In order to retain coherence, multi-part mitigation measures with new or revised text as well as unchanged text are presented together in this section rather than splitting them up with unchanged text above and revised text below.

Mitigation Measure 5.3-2(a): Prior to the removal of 19 riparian trees, the project sponsor shall obtain authorization in a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW).

~~**Mitigation Measure 5.3-2(a):** The development envelope shown on the Master Plan's Residential Area Layout should be revised to indicate building envelope areas which are intended to minimize tree removal. Deed restrictions or some other mechanism should be established over individual lots to prevent possible tree removal and disturbance of other native vegetation outside the identified building envelopes. Trees adjacent to building envelopes on Lots 8, 9, and 10 should be thinned or pruned under the guidance of a certified arborist rather than removed during house construction and yard landscaping.~~

Mitigation Measure 5.3-2(b) (Condition of Approval No. 31): Where feasible from an engineering and geotechnical standpoint and warranted based on the good to excellent health and structure of the tree, trees near the limits of anticipated grading should be preserved and protected. Individual specimen-sized trees should be preserved by retaining walls, short over-

steepened slopes, and other methods. Protection of larger native trees with trunk diameters exceeding 24 inches should take precedence over smaller live oaks and California bay which are abundant in the woodland habitat.

Mitigation Measure 5.3·2(c) (Condition of Approval No. 32): A certified arborist should prepare detailed guidelines to protect trees to be preserved from possible damage. Trees to be retained should be identified in the field with flags or other obvious marking method before any grading. Standards contained in the preservation guidelines should include the following:

- Grade changes should be avoided within 1.5 times the width of the tree dripline, and any encroachment should be prohibited closer than one-third the distance from the dripline to the trunk. Restrictions on the limits of grading, adjustments to the final grade of cut and fill slopes, and use of retaining walls should all be used to protect individual trees worthy of preservation.
- Temporary fencing should be provided along the outermost edge of the drip line of each tree or group of trees to be retained in the vicinity of grading to avoid compaction of the root zone and mechanical damage to trunks and limbs.
- Paving within the tree dripline should be prohibited or stringently minimized by using porous materials such as gravel, loose boulders, cobbles, wood chips, or bark mulch where hardscape improvements arc necessary for access in the vicinity of trees.
- Trenching within the tree dripline should be prohibited, and any required utility line within the dripline should be installed by boring or drilling through the soil.
- The amount of landscape irrigation within the tree dripline should be minimized by prohibiting turf or any landscaping with high water requirements and by limiting permanent irrigation improvements to bubbler, drip, or subterranean systems.
- Storage of construction equipment, materials, and stockpiled soils should be prohibited within the tree driplines.

Mitigation Measure 5.3-2(d) (Condition of Approval No. 33): A tree replacement program should be prepared to provide for replacement of native trees removed by proposed development. The tree replacement program should be included as a component of the project's Landscape and Vegetation Management Plan (required by Mitigation Measure 5.3-1 [a]) and implemented as part of site revegetation and landscaping. Provisions of the tree replacement program should include the following:

- Oaks and other native trees should be replaced at a ratio of 2:1 (ratio of replacement trees to number of trees removed).
- Species composition of plantings in the tree replacement program should generally be consistent with the percentage of each tree species removed. If off-site nursery stock is used for replacement plantings, plants preferably should be seedlings with a container size of one-gallon or smaller. Younger plant material tends to have a higher survival rate than older nursery stock which has become established under ideal growing conditions provided at most nurseries.

- A program to collect seed and grow seedlings for use in the tree replacement program should be considered as part of the tree replacement program. Seed should be collected on-site in the fall months, planted in temporary containers, and maintained for a period of one or more years until seedlings are ready for planting. Oak seedlings grown from an onsite seed source would be preferable to use of off-site nursery stock, and this program should be encouraged.
- If trees proposed for removal are successfully salvaged and transplanted, no additional replacement mitigation should be required for those trees.
- Tree replacement plantings should be monitored as part of the Landscape and Vegetation Management Plan (required for the project by Mitigation Measure 5.3-1[a]) for a minimum of five years. If mature salvaged trees die within this time period, replacement plantings should be made at the 2:1 ratio. Any on-site salvage, locally collected and grown seedlings, or nursery stock plantings lost within this monitoring period should be replaced at a 1:1 ratio on an annual basis.

Mitigation Measure 5.3·4(a) (Condition of Approval No. 35): A qualified wetland consultant should prepare a detailed wetland protection, replacement, and restoration program which satisfies adopted standards and criteria of the County, Corps, CDFG, and R WQCB. The program should be prepared as a component of the recommended Landscape and Vegetation Management Plan required by Mitigation Measure 5.3-1(a) at the Precise Development Plan stage of the County's planning and project approval process and should be implemented as part of site revegetation and landscaping. The wetland plan should clearly identify the total wetland and other jurisdictional area affected by the project, replace wetland habitat at a minimum 2:1 ratio (consistent with County policy), and provide for re-establishment, enhancement, and/or replacement of wetland vegetation. Details of the plan should include the following:

- Identify the location(s) of mitigation areas. Mitigation for loss of existing wetlands should be provided at a minimum replacement ratio of 2:1, consistent with The Marin Countywide Plan and should result in created or restored wetlands with a higher habitat value than that of the lost wetland areas.
- Replacement wetlands ~~should preferably~~ may be located on-site or on the adjacent parcel to the west (Assessor's Parcel Nos. 164-270-006 and -007) at a ratio determined by the Corps, but could include consideration of both on-site and an off-site location in the general vicinity. Use of the southeastern portion of the site for wetland mitigation would be unacceptable given that this area will most likely be developed with Highway 101I Lucas Valley Road interchange improvements in the future.
- Specify performance criteria, maintenance and long term management responsibilities, monitoring requirements, and contingency measures. Monitoring should be provided for a minimum of five years and continue until the success criteria are met.
- Define site preparation and revegetation procedures, an implementation schedule, and funding sources to ensure long-term management of the overall wetland mitigation plan.

Mitigation Measure 5.3·4(b) (Condition of Approval No. 36): A detailed erosion and sedimentation control plan should be prepared and implemented during construction on the

site. The plan should contain detailed measures to control erosion of stockpiled earth and exposed soil, provide for revegetation of graded slopes before the first rainy season following construction, and specify procedures for monitoring the plan's effectiveness. The revegetation component of the plan should be consistent with the Landscape and Vegetation Management Plan required by Mitigation Measure 5.3-1(a).

Implement Mitigation Measures 5.2-7 and 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding). [See below.]

Mitigation Measure 5.3·4(c) (Condition of Approval No. 34): The bridge or arched culvert proposed for the Marinwood Avenue crossing of Miller Creek should minimize disturbance to jurisdictional waters and riparian vegetation by designing it to conform with the County's minimum roadway width standards and restricting abutments to the upper channel banks. Construction should be performed during the low flow period in the creek (from June through October), and construction debris should be kept outside of the creek channel by using silt fencing or other effective methods. Replacement planting with native trees and shrubs should be provided adjacent to the structure as part of mitigation following completion of bridge construction.

Mitigation Measure 5.2-7 (Condition of Approval No. 25): To reduce project impacts of on-site erosion and downstream sedimentation it would be necessary to prepare and implement a comprehensive Stormwater Pollution Prevention Plan (SWPPP), which is submitted as part of the NPDES General Construction Activity Stormwater Permit (General Permit) filing with the State Water Resources Control Board. The NPDES General Permit is required for all developments which [*sic*] would disturb more than five acres of land. The SWPPP describes on-site measures for erosion control and stormwater treatment to be implemented during and following project construction, as well as a schedule for monitoring of performance. These measures are referred to as Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in the project SWPPP would likely include in-situ protection, seeding and mulching of bare ground, planting of trees and shrubbery in both disturbed upland and riparian areas, and installation of other forms of biotechnical slope stabilization, such as appropriately staked straw bale perimeters, silt fences, or staked plant wattles on the slope contour. No grading should occur within the Miller Creek Stream Conservation Area during the winter season, thus restricting grading activities at the proposed Miller Creek bridge crossing to the period between May 1 and October 15. Grading in site areas outside of the SCA can occur during the winter season, as long as erosion control measures approved as a part of the Stormwater Pollution Plan (SWPPP) [*sic*] are installed and properly maintained through this period.

Mitigation Measure 5.2-8 (Condition of Approval No. 26): To reduce project impacts of on-site erosion and downstream sedimentation due to construction of the Marinwood Avenue Bridge on Miller Creek, it would be necessary to:

- Implement Mitigation 5.2-7.

- Acquire a 1603 Stream Alteration Agreement from the California Department of Fish and Game (CDFG).[25] In addition to measures outlined in the project SWPPP for graded or exposed soil surfaces, the applicant's construction contractor(s) and field engineer should implement temporary measures, where required, to minimize channel sedimentation during bridge construction. Due to the good quality stream habitat and culverting impacts to aquatic life, a bypass pipe through the work area is not recommended. Some form of cofferdam segregating the work areas from the active channel area would be preferable. All such measures would be described in the Stream Alteration Agreement submittal and would be subject to approval by CDFG.
- Submit an application or letter of notification, as appropriate, to the U.S. Army Corps of Engineers for an Army Fill Permit, in accordance with provisions of the Nationwide Permit Program.
- Acquire a Waiver of Water Quality Certification from the RWQCB.

Mitigation Measure 5.3-4(d): As an alternative to Mitigation Measure 5.3-4(a), the applicant may mitigate for permanent impacts to U.S. Army Corps of Engineers (Corps) jurisdictional wetlands by purchasing an appropriate amount of mitigation credits by an approved mitigation bank within the Project service area or another type of mitigation as approved by the Corps and the San Francisco Bay Regional Water Quality Control Board (RWQCB) through the permitting process.

Mitigation Measure 5.3-7 (Condition of Approval No. 39): The following measures would be required to mitigate impacts on special-status species:

Mitigation Measure 5.3-7(a) (Special-status Bats): Potential significant impacts to roosting special-status bats shall be mitigated through avoiding disturbance to active roost sites. If tree removal or trimming is required, it shall take place between September and October. This time period for tree removal or trimming falls outside of both the maternity and hibernation periods for bats, and avoids the time period for bird breeding. Tree removal may take place during this period without a breeding bird or bat roost survey.

If removal of large oaks or riparian trees (DBH >12 inch) occurs during the bat roosting season (November through August), these trees shall be inspected by a qualified biologist for the presence of bat roosts. Potential bat roosts include large oak trees, broad leafed riparian trees, exfoliating bark, tree cavities, and snags. If a maternity roost is detected, a 200-foot buffer shall be placed around the maternity site until the bats are no longer utilizing the site. Non-maternity roost sites can be removed under the direction of the biologist.

Any large tree (DBH >12 inch) that will be removed shall be left on the ground for 24 hours before being taken offsite or chipped. This period will allow any day roosting bats the opportunity to leave before the tree is either removed from the area or chipped.

[25] Now the California Department of Fish and Wildlife.

Mitigation Measure 5.3-7(b) (Special-status Birds) (Condition of Approval No. 39): If any active special-status bird ~~raptor~~ nests are established within the vicinity of proposed grading in the future, they shall be avoided until young birds are able to leave the nest (fledge) and forage on their own. Avoidance may be accomplished either by scheduling grading and tree removal during the non-nesting period (August 15 through January 14) or, if this is not feasible, by conducting a ~~pre-grading~~ survey for raptor and other special-status bird species nests not more than two weeks prior to the start of vegetation removal or grading. Provisions of the ~~pre-grading~~ nesting bird survey effort, if necessary, shall include the following:

- If vegetation removal or grading is scheduled during the sensitive nesting period (January 15 through August 14), a qualified wildlife biologist, ~~chosen by the County and paid for by the applicant,~~ shall conduct a preconstruction ~~pre-grading~~ raptor and special-status bird survey to confirm the presence or absence of active nests in the vicinity of proposed construction activities.
- If active nests are encountered, the biologist shall prepare and implement species-specific measures to prevent abandonment of the active nest(s). At a minimum, grading in the vicinity of a nest's tree shall be deferred until the young birds have fledged, and a construction-disturbance setback ~~of at least 300 feet should~~ within a distance determined by the biologist shall be provided. Grading or other disturbance in the vicinity of the nest shall not be permitted until the biologist confirms that the young birds ~~raptors~~ have fledged. The biologist shall submit a survey report to the County verifying that the young have fledged before grading in the construction-disturbance setback area is initiated.
- As necessary, representatives of the CDFW and USFWS shall be consulted about appropriate construction restrictions, building setbacks, landscape screening, and other methods to ensure compliance with the MBTA and provisions of the CFGC.

Mitigation Measure 5.3-7(c) (Steelhead and Fish Habitat): Prior to any work within jurisdictional wetlands involving fill for the bridge crossings or removal of the old bridge footings, a Section 404 permit and a Section 401 Water Quality Certification shall be obtained. In addition, a Streambed Alteration Agreement shall be obtained from the CDFW. If in-channel work will occur, the Corps may initiate consultation with National Marine Fisheries Service (NMFS) if there is a potential for adverse impact to the species in order to determine the appropriate impact avoidance, minimization, and mitigation measures (if any) for the proposed Project.

Avoidance and minimization measures that may be required by NMFS and CDFW, and if required shall be implemented during the proposed Project, include the following:

- Work below top of bank shall be conducted in isolation from flowing water and will only occur during the dry season (April 15 to October 31). In the event that flowing water is present, the work area shall be isolated, and flowing water shall be diverted around the work area.
- The appropriate Corps, CDFW, and RWQCB permits and approvals shall be obtained prior to conducting work within the active channel or below top of bank within the Study Area. The Corps may initiate consultation with NMFS to determine if any

additional impact avoidance, minimization, and mitigation measures would be required for the proposed Project. The Corps, CDFW, and NMFS (if necessary) will be consulted regarding the bridge crossing design. Additional avoidance and minimization measures recommended in these permits shall be followed to reduce the potential to impact steelhead and fish habitat.

Conclusion

New information, including the 2017 BRA, has highlighted the need to modify several mitigation measures from the Final EIR, to ensure that they will adequately mitigate impacts of the Project now proposed. With implementation of the previously adopted Mitigation Measures identified in the 2005 EIR and the revised mitigation measures presented in this Addendum, the proposed Project would not result in any new or substantially more severe biological resource impacts than those previously evaluated in the 2005 EIR.

5. Cultural Resources

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
5. Cultural Resources. Would the Project:					
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Final EIR, pg. 3.0-48	No	No	No	Yes
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Final EIR, pg. 3.0-48	No	No	No	n/a
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Final EIR, pg. 3.0-48	No	No	No	n/a
d. Disturb any human remains, including those interred outside the formal cemeteries?	Final EIR, pg. 3.0-48	No	No	No	n/a

Discussion

5-a) The Final EIR referenced and summarized the analysis of potential impacts to historic and archaeological resources presented in the 1986 Administrative Draft EIR for the originally proposed project, discussed in Chapter 1, Introduction and Project History. The Final EIR

discussion noted that the archaeological consulting firm of David Chavez & Associates had reviewed official records and maps of historic and archaeological sites maintained by the Northwest Information Center at Sonoma State University, which is part of the California Historic Resources Inventory System (CHRIS). The archaeological consultant also reviewed the National Register of Historic Places (NRHP) and the California Inventory of Historic Resources.[26] Based on the records searches, it was determined that no known cultural resources were recorded within the boundaries of the previous project site. As part of the evaluation performed for the 1986 Administrative Draft EIR, an archaeologist from David Chavez & Associates also conducted a field survey of the project site, and found no visible surface evidence of historic or prehistoric archaeological resources. On the basis of these findings, the Final EIR concluded that development of the project site would have no adverse impacts on known archaeological or historical resources, and no mitigation measures were required. The Final EIR Second Amendment did not provide any additional discussion on potential cultural resources impacts.

Regulatory Changes Since 2005 EIR Certification

In 2004 the California legislature passed Senate Bill (SB) 18, which requires local governments to contact and consult with California Native American tribes prior to adoption or amendment of a general plan, specific plan, or designation of open space. This requirement was expanded with the passage in 2014 of Assembly Bill (AB) 52, which established a consultation process with all California Native American tribes included on a list maintained by the Native American Heritage Commission (NAHC). For a specific development project, the consultation must be with a tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.

AB 52 established a new class of cultural resources, Tribal Cultural Resources. A Tribal Cultural Resource (TCR) is a site feature, place, cultural landscape, sacred place, or object that is of cultural value to a Native American tribe and is either on or eligible for the CRHR or a local historic register, or the lead agency chooses, at its discretion, to treat the resource as a TCR.

For any development project application deemed complete by a lead agency after July 1, 2015, the lead agency must provide written notification within 14 days to all tribes that have requested placement on the agency's notification list. The notification must provide the project location, a brief description of the project, the lead agency contact information, and notice that the tribe has 30 days to request consultation. If a tribe requests consultation, it must begin within 30 days.

California Government Code Section 65352.4 defines this consultation as: " the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible,

[26] It is presumed that this reference was to the California Register of Historical Resources.

seeking agreement. Consultation between government agencies and Native American tribes shall be conducted in a way that is mutually respectful of each party's sovereignty. Consultation shall also recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance."

According to California Public Resources Code Section 21080.3.2, the consultation may include discussion concerning the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and, if necessary, project alternatives or the appropriate measures for preservation or mitigation that the California Native American tribe may recommended to the lead agency.

The lead agency must conduct an assessment of potential TCR impacts. In general, potentially significant impacts to prehistoric archaeological resources may be considered potential significant impacts to TCRs. Mitigation measures to reduce impacts to TCRs must be developed in coordination with the consulting tribal group. The preferred approach to mitigation is avoidance or preservation in place. If this is not feasible, the mitigation may take the form of interpretive treatment. Mitigation measures agreed to during tribal consultation must then be carried over into the CEQA document and the associated Mitigation Monitoring and Reporting Program (MMRP) that must be adopted by the lead agency as part of the CEQA process.

The consultation required by AB 52 is considered complete when either the parties agree to measures to mitigate or avoid any significant impact on TCRs, or if one of the parties, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

As discussed below, one Native American tribe requested consultation regarding the proposed Project, and was involved in the cultural resources investigation, including subsurface exploration, recently conducted for the Project. This consultation was performed in compliance with AB 52.

2015/2017 Cultural Resources Investigation

A new cultural resources investigation was prepared by the archaeological consulting firm of Garcia and Associates (GANDA) for the currently proposed Project in October 2015; it was updated in June 2017 to reflect Native American consultation with the Federated Indians of Graton Rancheria.[27] Because the investigation considered both historic and prehistoric cultural resources, this discussion is also applicable to the Environmental Checklist Question 5-b. The GANDA investigation included a review of historic maps, including the following:

- *Map of Marin County* (Austin and Whitney 1873);

[27] Garcia and Associates (GANDA), *Cultural Resources Investigation for the Oaks Assisted Living Development Project, City of San Rafael, Marin County, California*, June 2017.

- *Official Map of Marin County, California* (Dodge 1892);
- *Petaluma, California*, 7.5-minute topographic quadrangle (USGS 1914, 1942); and
- *Novato, California*, 7.5-minute topographic quadrangle (USGS 1954, 1968, 1980).

In addition, GANDA conducted an archival records search at the Northwest Information Center, including a review of survey reports from previous cultural resources investigations and cultural resources site records to identify recorded archaeological sites and built environmental resources (i.e., buildings, structures, and objects) located within a half-mile radius of the Project site. The records review encompassed California Office of Historic Preservation (OHP) sources, including the California Inventory of Historic Resources, California Archaeological Determinations of Eligibility, and the Historic Properties Directory, which combines cultural resources listed as California Points of Historical Interest, California Historical Landmarks, and those that are listed in or determined eligible for listing in the NRHP or the California Register of Historical Resources (CRHR). These searches were conducted in 2015 and again in April 2017.

Recorded Archaeological Sites in the Project Vicinity

The records search performed by GANDA identified three previous cultural resources investigations that were located within or directly adjacent to the Project site, which is referred to in their report as the Area of Direct Impacts (ADI). They included investigations by Melandry (1981); Chavez (1985); and Darko (2014).[28] In addition, the records search indicated that 12 cultural resources investigations have been completed within a quarter-mile radius of the ADI: Hastings (1975); Chavez (1978 and 1979); Breschini and Haversat (1980); Flynn (1988 and 1989); Roop (1991 and 1992); Woodward-Clyde Consultants (1991); Holman (1976); Slaymaker (1982); and Billat (2006). The records search identified no previously recorded cultural resources within the ADI, four prehistoric cultural resources within a quarter-mile radius of the ADI, and nine additional prehistoric cultural resources within one half-mile radius, all described below.

P-21-000172/CA-MRN-147: This prehistoric archaeological resource was described in 1907 as a shellmound site located on the banks of Miller Creek approximately 360 feet northwest of the ADI. The site was comprised of approximately 10 separate shellmound accumulations with the larger accumulations located on the southern bank of Miller Creek. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907a).

P-21-000171/CA-MRN-146: This prehistoric archaeological resource was described in 1907 as a shellmound site located on the banks of Miller Creek approximately 740 feet west of the ADI. The site consisted of approximately 10 separate

[28] Full citations to the reports referenced in this discussion are in the GANDA report, which is available for review on the County's website at: https://www.marincounty.org/depts/cd/divisions/planning/projects/lucas-valley/daphne-o-krestine-trust_the-oak_mp_dp_dr_p1547_sr.

accumulations of midden with the largest being on the southern bank of Miller Creek and was noted to be "insignificant in both extent and depth" (Nelson 1907b). This resource has not been evaluated for listing on the CRHR or NRHP.

P-21-000159/CA-MRN-134: This prehistoric archaeological resource was described in 1907 as a shellmound site with an additional small shell accumulation located along a dry tributary approximately 0.21 mile east of the ADI. The site was noted as being among a collection of approximately seven shellmound accumulations strung along both sides of the waterway for a distance of about 1,200 feet. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907c).

P-21-000163/CA-MRN-138: This prehistoric archaeological resource was described in 1955 as a prehistoric occupation site located on the banks of Miller Creek approximately 0.23 mile west of the ADI. The site contained shell midden, human remains, faunal bone, obsidian and chert debitage, and a small cobble pestle but was likely at least partially destroyed by the development of a housing complex. This resource has not been evaluated for listing on the CRHR or NRHP (Riddell 1955a).

P-21-000160/CA-MRN-135: This prehistoric archaeological resource was described in 1907 as a shellmound site that contained habitation debris and was located approximately 0.26 mile east of the ADI. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907d).

P-21-000170/CA-MRN-145: This prehistoric archaeological resource was identified as a shellmound site located approximately 0.30 mile west of the ADI that contains artifacts indicating habitation. This resource has not been evaluated for listing on the CRHR or NRHP (Riddell 1955b).

P-21-000157/CA-MRN-132: This prehistoric archaeological resource was described in 1907 as a shellmound site located approximately 0.32 mile east of the ADI. The site contained human burials and evidence for habitation. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907e).

P-21-000164/CA-MRN-139: This prehistoric archaeological resource was identified as a shellmound site located approximately 0.34 mile west of the ADI that contains human burials, evidence for habitation, and lithic scatter. This resource has not been evaluated for listing on the CRHR or NRHP (Riddell 1955c).

P-21-000173/CA-MRN-148: This prehistoric archaeological resource was described in 1907 as a shellmound site that contained habitation debris and was located approximately 0.37 mile northeast of the ADI. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907f).

P-21-000158/CA-MRN-133: This prehistoric archaeological resource was described in 1907 as a shellmound site located approximately 0.38 mile east of the ADI. The site contained human burials and evidence for habitation. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907g).

P-21-000161/CA-MRN-136: This prehistoric archaeological resource was described in 1907 as a shellmound site that contained habitation debris and was located approximately 0.42 mile east of the ADI. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907h).

P-21-000162/CA-MRN-137: This prehistoric archaeological resource was described in 1907 as a shellmound site located approximately 0.45 mile east of the ADI. The site contained human burials, bedrock milling features, and habitation debris. This resource has not been evaluated for listing on the CRHR or NRHP (Nelson 1907i).

P-21-000165/CA-MRN-140: This prehistoric archaeological resource was identified as a shellmound site located approximately 0.45 mile west of the ADI that contains habitation debris and lithic scatters. This resource has not been evaluated for listing on the CRHR or NRHP (Riddell 1955d).

Native American Consultation

As part of the cultural resources investigation, on September 15, 2015 GANDA contacted the Native American Heritage Commission (NAHC) to obtain a list of Native American groups and individuals who might have concerns and/or information regarding cultural resources within or near the ADI. Based on NAHC's response, GANDA sent letters of inquiry along with the Project description and associated maps to Greg Sarris, Chairperson, and Gene Buvelot of the Federated Indians of Graton Rancheria (FIGR) on October 7, 2015; these were the only Native American representatives identified by the NAHC as having knowledge of or interests in cultural resources in the Project area. Although there was initially no response, follow-up consultation letters were mailed to Greg Sarris and Gene Buvelot, and an email copy was sent to Buffy McQuillen, FIGR's Tribal Heritage Preservation Officer (THPO) on May 22, 2017. The letter informed the Tribe that the Project was resuming after a delay, and that the Project must comply with both CEQA and Section 106 of the National Historic Preservation Act in order to meet the United States Army Corps of Engineers (USACE) permitting requirements for work being conducted within Miller Creek. The THPO emailed GANDA on May 22, 2017 and stated that the Tribe had concerns about potential impacts to cultural resources and wanted to participate in site surveys. GANDA will be conducting additional field investigation of the site as part of complying with the Section 106 process, and will be continuing to consult with FIGR as part of that process. Consequently, a FIGR representative was present during subsequent subsurface exploration at the site, described below under Subsurface Testing.

Geo-archaeological Analysis

To evaluate the potential for the presence of buried archaeological resources at the site, GANDA conducted a geo-archaeological analysis that entailed evaluating geologic, soils, and topographic maps of the area to determine if the landscape of the ADI was suitable for human occupation during Native American occupation. This included determining if the landscape is depositional, which would indicate that it could contain layers of both natural and cultural materials preserved below ground. In addition, GANDA reviewed the characteristics (landscape types, depth below surface, etc.) of the previously recorded prehistoric archaeological sites within proximity to the Project site, listed above. The proximity and similar contexts of those sites increases the potential for the presence of buried archaeological deposits at the Project site.

The Project site is at the eastern cusp of the San Pedro Santa Margarita y Las Gallinas Hills (Gallinas Hills) and Lucas Valley. It is at the lower basal slopes of the Gallinas Hills where the landscape extends east into flatlands and estuarine marshlands flanking San Pablo Bay. Although the current shoreline of San Pablo Bay is approximately 2 miles to the east, some of the intervening lands were historically filled to support development, and the shoreline was likely further west during Native American occupation. This would place the Project site closer to the Bayshore subsistence resources essential to the Native American populations.

The Project site is at a mid-range elevation between the Gallinas Hills to the west and the San Pablo flatlands to the east. The vantage of San Pablo Bay to the east and the topographic protection of the Gallinas Hills to the west would have made the Project area ideally suited for human occupation. The basal slopes would have kept occupants above saturated marshlands and the steep hills immediately to the west would have provided a topographic barrier from easterly winds. Miller Creek, which drains the Lucas Valley, empties into the San Pablo Bay flatlands at the northern border of the Project site. Multiple freshwater drainages are just to the south of the Project area in the Gallinas marshlands. The close proximity of freshwater sources, particularly so near San Pablo Bay, further make the site ideally suited for prehistoric human occupation, as illustrated by the presence of the numerous nearby recorded prehistoric archaeological sites.

Given the preceding geoarchaeological characteristics, GANDA concluded that the Project site has a high potential for the presence of prehistoric cultural resources within several hundred feet of Miller Creek, and a moderate sensitivity for the presence of prehistoric deposits elsewhere within the site, which decreases with distance from Miller Creek.

Field Survey

Following the archival records search and geoarchaeological analysis, GANDA conducted a pedestrian survey of the Project site in September 2016, with two archaeologists walking systematic transects 5 to 10 meters apart. Most of the ground surface was obscured by tall grasses and, in some locations, by clusters of fennel, thistles, and blackberry bushes near the base of the slope along the western perimeter of the site. The survey noted what

appeared to be a mountain bike course with a series of ramps and jumps adjacent to Miller Creek, along with associated trash scatters that appeared to be modern. A burned area approximately 35 feet in diameter was noted along the tree line in the southwest corner of the site that was consistent with the description of a fire noted by the Marin County Sheriff Department on August 26, 2015.

No prehistoric or historic-period archaeological resources were identified on the site during the pedestrian survey.

Subsurface Testing

In response to FIGR's request to participate in site surveys, discussed above under Native American Consultation, a senior archaeologist from GANDA met with FIGR's THPO and the Project applicant on June 15, 2017 to discuss the Project details and further efforts to address the prehistoric sensitivity of the Project site and comply with Section 106. Subsequently, FIGR representative David Carrio was present on the Project site on June 22 and June 23 to monitor the auger testing program within the APE. A total of five 3-inch diameter hand auger units were excavated within the footprint of proposed ground disturbance for the construction of the bridge over Miller Creek. They were advanced in 20-centimeter increments to a maximum depth of 180 centimeters (3 feet) below the ground surface.

Four augers excavated on the north side of Miller Creek revealed that this portion of the site is underlain by at least 5 to 6 feet of artificial fill, likely associated with the construction of the former bridge crossing and nearby dirt road. Only Auger 2 demonstrated the presence of native soils (i.e. alluvium), which was identified at a depth of approximately 160 to 180 centimeters (5.25 to 6 feet). The fifth auger was excavated on the south side of Miller Creek and was abandoned at a depth of 100 centimeters because weathered sandstone bedrock was encountered. Three additional auger locations on the south side of creek were abandoned at a depth of 15-20 centimeters due to an impenetrable bedrock layer at those depths. The shallow depth of bedrock is likely due to historical disturbances on the south side of Miller Creek which likely removed any cultural deposits that would have overlain the bedrock. All augers resulted in negative findings for the presence of prehistoric and historic-era resources.[29]

Conclusions

Based on the negative results of the subsurface testing, the updated January 2018 GANDA report concluded that there is low potential for encountering buried archaeological deposits during construction of the proposed Project, as the majority of low-lying areas on the site are Cretaceous-era deposits lacking more recent alluvial events that could have buried a prehistoric Native American site.

[29] Garcia and Associates (GANDA), *Cultural Resources Investigation for the Oaks Assisted Living Development Project, City of San Rafael, Marin County, California*, January 2018.

At the invitation of the Project Applicant, representatives of the Federated Indians of Graton Rancheria were present on the site to observe geotechnical and archaeological borings conducted in the vicinity of the bridge crossing in 2015, 2016, and 2017, and no cultural artifacts were encountered. While there is still some potential for previously undiscovered cultural resources to be present at the Project site, County Development Code Section 22.20.040 requires construction contractors to stop work in the event cultural resources are encountered during site disturbance until they can be evaluated by a qualified archaeologist, who must make recommendations for any further investigation or protection measures that should be implemented to minimize adverse effects on cultural resources. This code requirement is consistent with the requirements for treatment of archaeological and historical resources set forth in Section 15064.5 of the *CEQA Guidelines*. Therefore, with application of Development Code Section 22.20.040, implementation of the proposed Project would not result in any new impacts or substantially more severe impacts on historic resources than were identified in the 2005 EIR.

5-b) Potential impacts to archaeological resources are addressed in Checklist Item 5-a, above.

5-c) Although the Final EIR did not explicitly address paleontological resources, it stated that there are no known cultural resources, which generally include paleontological resources, at the project site, and concluded that the project would have no adverse effects on cultural resources. The County's standard requirement in Development Code Section 22.20.040, requiring construction contractors to stop work if cultural resources are encountered during site disturbance, described above in Item 5-a, would apply in the event paleontological resources were encountered during Project construction. Compliance with this condition of approval would ensure that potential impacts to paleontological resources would not be significant. Therefore, the proposed Project would not have any new or substantially more severe impacts on paleontological resources than were identified in the 2005 EIR.

5-d) The analysis presented in Checklist Item 5-a, above, applies to disturbance of human remains during construction activities. The proposed Project would not create any new or substantially more severe impacts related to disturbance of human remains.

2005 EIR Mitigation Measures

The 2005 EIR did not identify any mitigation measures for impacts to cultural resources, and no new cultural resources mitigation measures are required for the proposed Project.

Conclusion

Implementation of the proposed Project would not result in any new or more severe impacts on cultural resources than those previously evaluated in the 2005 EIR.

6. Energy

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
6. Energy. Would the Project:					
a. Result in the inefficient, wasteful, or unnecessary consumption of energy resources?	Final EIR, pg. 3.0-47 to 3.0-48	No	No	No	n/a

Discussion

6-a) The Final EIR found that the project would consume energy during project construction, with energy required for the fabrication and transportation of building materials, transport of workers to and from the site, site grading, and building construction. Energy would be consumed in the form of gasoline, diesel fuel, natural gas, and electricity, but the amount was not known. Once construction of the project was complete, there would be an ongoing demand for energy for space conditioning (heating, cooling, ventilating), water heating, and electricity for lighting and other electrical needs. In addition, during project operations, gasoline and diesel would be consumed by ongoing transportation of workers, residents, service providers, and material deliveries. No quantification of these energy demands was provided, but the EIR noted that the vehicle miles traveled (VMT) for these transportation expenditures would have reduced VMT in comparison with other similar development because the site is located near a large employment and retail center. The Final EIR concluded that the amount of energy used by the project would be less than significant. The Final EIR Second Amendment did not discuss energy consumption.

As discussed above in Section 3, Air Quality, Item 3-c, the California Air Resources Board's (CARB) California Emission Estimator Model (CalEEMod, Version 2016.3.1) was used to quantify construction and operational emissions for the current Project; it also provided a basis for estimating the current Project's energy consumption. Based on the CalEEMod for proposed Project construction and using standard fuel consumption estimates, construction activities would require 30,050 gallons of diesel fuel and 41,470 gallons of gasoline.[30] This includes all off-road construction equipment, hauling, vendor, and worker trips over a 380-working day construction period. For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be

30 Fuel usage is estimated using the CalEEMod output for CO_2, and a $kgCO_2$/gallon conversion factor, as cited in the U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program. Accessed December 11, 2017 at https://www.epa.gov/sites/production/files/2015-11/documents/emission-factors_2011.pdf.

quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Natural gas would not be used during construction.

These short-term expenditures of energy are associated with any construction project, and are not typically considered significant impacts related to energy consumption. Previously adopted Final EIR Mitigation Measure 5.6-3 (dust control measures during construction) requires the construction contractor to maintain equipment in proper operating condition and minimize unnecessary idling of equipment, which would help minimize inefficient use of energy during construction. Both vehicles and construction equipment have become more energy efficient since the preparation of the Final EIR. Consequently, with a comparable amount of development to the project evaluated in the Final EIR, it may be assumed that construction of the proposed Project would require less consumption of energy. Therefore, construction of the Project would not result in any new or substantially more severe impacts on energy consumption than those previously evaluated in the 2005 EIR.

Regarding Project operations, daily motor vehicle trips would include 40 trips generated by the affordable apartments (6.65 trips per dwelling unit) and 335 trips generated by the senior apartments (2.66 trips per dwelling unit).[31] The estimated annual vehicle miles traveled would be approximately 853,870 miles (or 41,050 gallons of gasoline at approximately 21 miles per gallon). Annual electricity and natural gas consumption were calculated using the demand factors provided in CalEEMod. The proposed Project's building and parking lot lighting energy consumption was estimated to be approximately 701,300 kilowatt-hours of electricity per year and natural gas consumption for cooking and space and water heating was estimated to be approximately 1.256 billion British Thermal Units per year (or 12,560 therms).

Marin County Green Building Requirements in addition to California Code of Regulations Title 24, Part 6 and Part 11 (California Green Building Standards Code) are effective as of January 1, 2017 and thus were not included in the calculation methodology for CalEEMod (Version 2016.3.1). Therefore, adjustment factors were applied to the CalEEMod modeling to account for the current requirements. The numbers reported above represent adjusted values.

Both Marin County and California Green Building regulations include requirements for energy-efficient building construction methods and materials. Title 24 of the California Building Code (CBC) also sets energy and/or water efficiency standards for appliances, including refrigerators, freezers, dishwashers, clothes washers and dryers, stoves, room and central air conditioners, space heaters, water heaters, pool heaters, plumbing fixtures, incandescent and fluorescent lamps, emergency lighting, luminaires, traffic signals, computers, televisions, audio and video equipment, battery charger systems, and more.

---

31 W-Trans, *Traffic Impact Study for the Oaks Project*, June 5, 2017.

Compliance with the applicable Marin County and Title 24 Green Building regulations would ensure that the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy resources. Since the Project would be required to comply with these regulations, the Project would not have a new or substantially more severe significant impact on energy, and no mitigation would be required.

2005 EIR Mitigation Measures

The 2005 EIR did not identify any mitigation measures for impacts to energy resources, and no new energy mitigation measures are required for the proposed Project.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe impacts on energy resources than those previously evaluated in the 2005 EIR.

7. Geology and Soils

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
7. Geology and Soils. Would the Project:					
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides?	Final EIR, pgs. 5.1-17–5.1-27; Final EIR Second Amendment, pgs. 5–6	No	No	No	Yes
b. Result in substantial soil erosion or the loss of topsoil?	Final EIR, pgs. 5.1-18–5.1-20 and 5.2-22–5.2-24; Final EIR Second	No	No	No	Yes

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
7. Geology and Soils. Would the Project:					
	Amendment, pgs. 5–8				
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Final EIR, pgs. 5.1-17–5.1-27; Final EIR Second Amendment, pgs. 5–6	No	No	No	Yes
d. Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Final EIR, pg. 5.1-23; Final EIR Second Amendment, pg. 6	No	No	No	n/a
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	n/a	No	No	No	n/a

Discussion

7-a) The Final EIR described significant seismic hazards impacts, including Impact 5.1-1 (Landsliding), Impact 5.1-3 (Slope Stability), Impact 5.1-6 (Seismicity), and Impact 5.1-13 (Maintenance of Geotechnical and Hydrologic Mitigation Measures). In addition, the Final EIR discussed Impact 5.1-8 (Liquefaction) and Impact 5.1-11 (Faulting and Ground Surface Rupture), but found them to be less than significant. The Final EIR Second Amendment determined that each of these impacts would still apply to the amended project, and the associated previously adopted mitigation measures for the potentially significant impacts would still be required.

Landsliding was identified in the Final EIR as the most significant potential geologic hazard to development on the site, with four suspected ancient bedrock landslides present on the site, identified as Areas A, B, C, and D. However, all four of these areas are well outside the current Project site, and do not pose any risk to the proposed Project. In addition, after exploring Area C by continuous backhoe trench and deep core boring, both the applicant's and the County's respective geotechnical consultants concluded that Area C was not an ancient landslide.

Slope stability is a concern at the site due to the Franciscan bedrock of Jurassic to Cretaceous age that underlies the site. Intense fracturing, deep weathering, and variable bedding orientations are common in the Franciscan assemblage, which render it prone to both deep-seated and surficial landsliding. The Final EIR stated that due to the low shear strength of some of the bedrock materials, slopes cut at 2:1 gradients substantially higher than 10 feet high would be likely to erode and experience localized failure until they reach equilibrium.

Because of the proximity of the site to the San Andreas, Hayward, Rodgers Creek, and other active faults, there is a high probability that the site will experience strong ground shaking during the lifetime of any proposed structures. The Final EIR determined that seismic shaking from the Hayward and San Andreas faults could cause peak ground shaking at the site of 0.040g to 0.45g, respectively, during the life of the proposed development.

2016 Geotechnical Investigation

Herzog Geotechnical Consulting Engineers conducted a new geotechnical investigation for the currently proposed Project in 2016.[32] The investigation included the advancement of 12 test borings within the areas proposed for development to depths of 2-1/3 feet to 13-1/2 feet below the ground surface. Samples collected from the borings were laboratory tested to classify their soil types and determine their moisture content, dry density, and plasticity.

With the exception of a boring taken above the northern bank of Miller Creek, the borings as well as the prior test pits excavated in 1983 for the original project proposal encountered topsoil, colluvium and residual soils overlying bedrock. The topsoil encountered generally consists of loose silty sand and of soft sandy silt with organics. The colluvium encountered generally consists of loose to medium-dense silty and clayey sand which washed or slid down from upslope areas. The residual soils encountered generally consist of medium stiff sandy clay and of medium dense to dense clayey and silty sand derived from the in-place weathering of the underlying parent bedrock. The soils encountered are relatively weak and compressible, are of low expansion potential, and are subject to downslope creep on hillsides. Bedrock encountered in the borings and pits generally consists of firm to hard, highly weathered sandstone and shale.

The boring advanced above the creek bank encountered fill overlying alluvial deposits. The fill encountered in the boring consists of loose clayey sand, and the alluvium encountered consists of stiff to very stiff sandy clay and of medium dense to dense sandy gravel with cobbles which extended to the total depth explored of 13-1/2 feet. Due to the density and high percentage of fine-grained materials, Herzog concluded that the potential for liquefaction of site soils during seismic shaking is low.

---

[32] Herzog Geotechnical Consulting Engineers, *Geotechnical Investigation, The Oaks Senior Living Community, Lot 2, The Oakview Land Division (AP# 164-270-05), San Rafael, California*, Project Number 2034-03-15, August 1, 2016.

In discussing slope stability at the site, the 2016 geotechnical report determined that the swale areas of the site lie within Slope Stability Zone 3, as defined in *Geology for Planning: Central and Southeast Marin County*.[33] Zone 3 includes areas where the steepness of slopes approach the stability limits of the underlying geologic materials.[34] The remaining slopes within the site are mapped as Zone 2, which is defined as areas that are underlain by relatively competent bedrock, but which are flanked by steep, potentially unstable slopes.

Because the banks of Miller Creek show evidence of erosion and instability, Herzog concluded that continuing bank failures are likely to occur as a result of scour undermining and other factors. Consequently, they concluded that to maintain bank stability it will be necessary to retain portions of the bank near the proposed roadway with bridge abutment walls supported in stable material below the depth of potential scour.

The 2016 geotechnical report for the proposed Project does not identify new information about the site that was not previously disclosed in the 2005 EIR, nor does it identify any new significant geology or soils impacts. The design and construction recommendations presented in the report are consistent with the requirements of the previously adopted mitigation measures. (see below). Therefore, implementation of the proposed Project would not result in any new or substantially more severe impacts related to seismic hazards.

7-b) The Final EIR discussed impacts related to erosion and sedimentation in Section 5.2, Hydrology and Drainage. The Final EIR described significant erosion impacts, including Impact 5.2-7 (Site Erosion and Downstream Sedimentation and Flooding) and Impact 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding); Impact 5.2-7 addressed erosion during construction of the proposed buildings, while Impact 5.2-8 addressed erosion from construction of the proposed bridge crossing of Miller Creek. Implementation of previously adopted Mitigation Measures 5.2-7 (preparation and implementation of a Stormwater Pollution Prevention Plan) and 5.2-8 (acquisition of a Streambed Alteration Agreement from the California Department of Fish and Wildlife), respectively, would reduce these impacts to a less-than-significant level.

The Final EIR found that the moderately to steeply sloped terrain on the project site made it susceptible to the adverse effects of soil erosion, particularly during rainstorms. Because eroded sediment would wash into Miller Creek, either directly or indirectly, this could adversely affect surface water quality, which is addressed separately in Section 9, Hydrology and Water Quality. Miller Creek would be at risk from direct erosion impacts during construction of the proposed bridge, which would involve the use of heavy equipment for land clearing, bank and overbank grading, abutment construction, and installation of bank stabilization measures, all of which would increase the potential for erosion and sedimentation impacts.

---

[33] S.J. Rice, T.C. Smith, and R.G. Strand, *Geology for Planning: Central and Southeast Marin County*, 1976.

[34] The zones range from 1 to 4, with Zone 4 being least stable.

The Final EIR Second Amendment determined that Impacts 5.2-7 and 5.2-8 would still apply to the amended project, and the associated mitigation measures previously adopted for the potentially significant impacts would still be required. Although the elimination of Building B from the Mitigation Alternative would reduce the total area subject to grading, the potential for runoff-induced erosion would remain high.

The currently proposed Project is very similar to the assisted living facility component of the revised project evaluated in the Final EIR Second Amendment. The 2016 geotechnical report for the proposed Project concludes that it will be important to control surface and subsurface water in order to minimize future moisture variations in the weak on-site soils. Water will need to be intercepted upslope of the buildings, with fail-safe surface drainage systems provided to prevent water from collecting behind the structures. The geotechnical report calls for the construction of lined drainage swales at the top of cut banks to reduce the risk of bank erosion and/or instability, installation of perimeter building foundation drains and slab underdrains, and provision of adequate backdrainage at retaining walls to prevent hydrostatic buildup. Points of stormwater discharge should drain to an approved storm drain or erosion resistant outlet. These recommendations are consistent with the geology and soils mitigation requirements referenced in Item 6-a, above, and set forth below following Item 6-e. Potential erosion impacts during Project construction would be addressed by previously adopted Mitigation Measures 5.2-7 and 5.2-8 (see below), which would continue to apply to the proposed Project and are also listed below.

The geological and soils conditions at the site remain unchanged since preparation of the 2005 EIR, and the proposed Project does not have any characteristics that would result in new or more severe erosion impacts. Therefore, with application of previously adopted Mitigation Measures 5.2-7 and 5.2-8, implementation of the Project would not result in any new or substantially more severe erosion impacts than were evaluated in the 2005 EIR.

7-c) The general soil stability hazards for the proposed Project, including slope stability and the potential for landslides and liquefaction, were addressed under Item 7-a, above. The Final EIR also found in Impact 5.1-5 (Soil Creep) that shrinking and swelling of the site's clayey soils could result in the gradual downhill movement of surficial soils, potentially damaging project buildings. Although the discussion was focused on the residential homes that are not part of the current Project, the 2016 geotechnical report prepared for the currently proposed Project also identified downslope creep as a geotechnical hazard at the Project site. Previously adopted Final EIR Mitigation Measure 5.1-5 (design any structures on sloping ground to take creep forces into account and comply with the design standards of the Uniform Building Code) would continue apply to the proposed Project. Implementation of the previously adopted mitigation measures identified in item 7-a and repeated below would ensure that impacts related to soil creep would be reduced to a less-than-significant level.

The Final EIR identified Impact 5.1-9 (Rockfall) as an additional potentially significant stability impact that could result from previously unidentified bedrock outcrops or residual boulders

being dislodged during site development, potentially injuring workers or damaging downhill structures. Implementation of previously adopted Mitigation Measure 5.1-9 (removal of unstable materials and placement of engineered erosion control devices) would reduce the impact to a less-than-significant level.

Final EIR Impact 5.1-10 (Artificial Fill Areas) addressed impacts, including differential settlement, that could result from construction on artificial fill present on the periphery of the site. The Final EIR Second Amendment determined that Impact 5.1-10 would still apply to the amended project. However, the area of artificial fill, which was placed during construction of Highway 101 and other development in the area, was on the larger project site evaluated in the 2005 EIR; it is not present on the current Project site, and Impact 5.1-10 would not apply to the proposed Project. Furthermore, any potential for differential settlement on the Project site would be addressed through implementation of previously adopted Mitigation Measures 5.1-1 (repair of landslides and installation of subdrains and surface drains), 5.1-3 (stabilization of slopes in accordance with geotechnical engineer's recommendations, as determined in the field during construction), and 5.1-6 (design all structures, roads, and utilities in conformance with the Uniform Building Code).

The 2016 geotechnical report prepared by Herzog identifies groundwater seepage as a process occurring at the site, as indicated by hydrophilic vegetation growing in some portions of lower slopes on the site. This issue was addressed in the Final EIR in Impact 5.1-4 (Groundwater), which found that uncontrolled seepage could cause ponding and intrusion of water into an adjacent landslide area (Area D). The potential for seepage impacts remains at the current Project site, and the mitigation requirements would still apply to the Project. As acknowledged in the Herzog report, seepage can also pose problems during construction when excavations are made for building foundations, retaining walls, etc. Such excavations could be destabilized by the intrusion of seepage. To ensure potential impacts from seepage remain less than significant, new subsection (b) to previously adopted Mitigation Measure 5.1-4 (employ subdrains and surface drains during construction to minimize seepage), which is renumbered as 5.1-4(a), is required to further mitigate this impact already addressed in the 2005 EIR. Implementation of previously adopted, renumbered Mitigation Measure 5.1-4(a) and new subsection (b) to Mitigation Measure 5.1-4 (see below) would reduce potential seepage impacts to a less-than-significant level.

The geological and soils conditions at the site remain unchanged since preparation of the 2005 EIR, and the proposed Project does not have any characteristics that would result in new or substantially more severe significant impacts related to unstable soils. Therefore, with application of previously adopted Mitigation Measures 5.1-4 and 5.1-4(a) (see below) implementation of the Project would not result in any new or substantially more soil stability impacts than were evaluated in the 2005 EIR.

7-d) The Final EIR summarized a 1983 geotechnical investigation of the project site that included excavation of 25 test pits, with laboratory testing of the excavated soils. The results demonstrated that the site soils are not expansive, although they were

characterized as loose, subject to creep and settlement, and generally unsuitable for fills or structure foundations. These geotechnical hazards are addressed above in Items 7-a and 7-c. The Final EIR determined that Impact 5.1-7 (Expansive Soils) was less than significant, and no mitigation was required.

As part of the 2016 geotechnical investigation performed by Herzog for the proposed Project, 12 exploratory borings were advanced in areas currently proposed for development, including the building sites and hillsides above, entrance road, and bridge crossing. The laboratory results from the collected soil samples indicated that site soils have low expansion potential, consistent with the previous EIR findings.

The Final EIR evaluation of Impact 5.1-7 is still applicable to the proposed Project, and no mitigation is required. Impacts resulting from structures exposed to expansive soils would remain less than significant for the proposed Project.

7-e) The project evaluated in the 2005 EIR did not require or include a septic system for wastewater disposal, so the issue of the suitability of site soils for a septic system was not relevant and was not discussed in the EIR. Similarly, the current Project does not propose a septic system for wastewater disposal, and there is no potential for an impact related to the suitability of site soils for a septic system.

2005 EIR Mitigation Measures

The 2005 EIR identified eight mitigation measures to reduce identified geology and soils impacts, which were adopted and made conditions of project approval. Previously adopted Mitigation Measures 5.1-1, 5.1-3, 5.1-4, 5.1-6, and 5.1-9 would continue to apply to the proposed Project. Mitigation Measures 5.1-4 is renumbered below as 5.1-4(a) and is augmented with new subsection (b). In addition, the Hydrology and Water Quality section of the 2005 EIR identified two mitigation measures to reduce erosion impacts: Mitigation Measures 5.2-7 and 5.2-8, both of which would continue to apply to the proposed Project.

Mitigation Measure 5.1-1 (Condition of Approval No. 15): In order to mitigate the potential for future landslide movements, landslides and colluvial soils near proposed development areas should be repaired during grading. Standard techniques proposed to repair the landslides include removal and recompaction of loose materials, keying and benching, and installation of subdrains and surficial drainage systems. All grading should be performed in compliance with the Uniform Building Code, as well as local code and agency standards, under the observation and testing of the project geotechnical engineer and engineering geologist.

Mitigation Measure 5.1-3 (Condition of Approval No. 16): The proposed Grading and Drainage Plan limits cut and fill slopes to an average of ten feet in height by combining cut slopes with engineered timber retaining walls. Additionally, the applicant's geologist recommends thin buttress or stability fills on slopes found to be of weak materials during grading. Both surficial and subsurface drainage provisions are also recommended. Although already proposed as part of the Grading and Drainage Plan, the specifics, such as extent and location, of these measures would be

determined by the applicant's geologist or geotechnical engineer in the field at the time of construction. As currently proposed, mitigation measures would consist of a combination of site-specific recommendations by the applicant's consultant and local agency and code requirements. The following measures would be feasible in mitigating site-specific conditions and producing stable natural slopes, as well as engineered slopes, where cutting and filling would occur on the site:

- Evaluate the effects of bedding orientation (information acquired during the design phase investigation required for the Precise Development Plan) on the gross stability of existing and proposed slopes in the development area to prepare the geotechnical consultant to observe and direct grading operations and make site-specific determinations (see immediately following measure).
- Examine natural and cut slopes during grading to confirm their potential for long-term stability. If the geotechnical consultant determines that the exposed earth materials are weaker than expected, mitigate this condition by recompacting as an earth buttress or stability fill or by the selected use of retaining walls or other acceptable methods, as have been proposed by the applicant's geologist.
- Design drainage facilities to conform with [*sic*] agency and code standards. This should include terrace drains every 30 feet of vertical height on all graded slopes with grades steeper than 5: I. The terrace drains should have a minimum flowline gradient of six percent to make them self-cleaning (a minimal tenet of the Uniform Building Code). They also should be fitted with downdrains every 150 linear feet of terrace to allow for quick drainage.
- Plant cut and fill slopes with ground cover in order to prevent erosion, raveling, or development of rills, sloughs, and other failures which could reduce the effectiveness of stabilization methods whereas roots of newly planted vegetation would enhance stability of graded slopes by holding materials in place.

Mitigation Measure 5.1-6 (Condition of Approval No. 19):: The following measure would be required to mitigate seismic impacts other than seismically-induced landsliding: Design and build all on-site structures, roads, and utilities in conformance with the UBC [Uniform Building Code].

Mitigation Measure 5.1-9 (Condition of Approval No. 20): The following measure would be required to mitigate potential rockfall impacts:

- Remove any unstable materials encountered adjacent to development areas.
- Remove the materials and place rip-rap or other engineered erosion control devices, construct rockfall entrapment trenches, or undertake selective rock bolting of remaining materials with galvanized or gray PVC-coated gabion mesh.
- Set development back from eroding rock faces not mitigated by the above measures or in addition to implementing those measures, depending on specific situations.

Mitigation Measure 5.2-7 (Condition of Approval No. 25): To reduce project impacts of on-site erosion and downstream sedimentation it would be necessary to prepare and implement a comprehensive Stormwater Pollution Prevention Plan (SWPPP), which is submitted as part of the NPDES General Construction Activity Stormwater Permit (General Permit) filing with the State Water Resources Control Board. The NPDES General Permit is required for all developments which [*sic*] would disturb more than five acres of land. The SWPPP describes on-site measures tor erosion control and stormwater treatment to be implemented during and following project construction, as well as a schedule for monitoring of performance. These measures are referred to as Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in the project SWPPP would likely include *in-situ* protection, seeding and mulching of bare ground, planting of trees and shrubbery in both disturbed upland and riparian areas, and installation of other forms of biotechnical slope stabilization, such as appropriately staked straw bale perimeters, silt fences, or staked plant wattles on the slope contour. No grading should occur within the Miller Creek Stream Conservation Area during the winter season, thus restricting grading activities at the proposed Miller Creek bridge crossing to the period between May 1 and October 15. Grading in site areas outside of the SCA can occur during the winter season, as long as erosion control measures approved as a part of the Stormwater Pollution Plan (SWPPP) [*sic*] are installed and properly maintained through this period.

Mitigation Measure 5.2-8 (Condition of Approval No. 25): To reduce project impacts of on-site erosion and downstream sedimentation due to construction of the Marinwood Avenue Bridge on Miller Creek, it would be necessary to:

- Implement Mitigation 5.2-7.
- Acquire a 1603 Stream Alteration Agreement from the California Department of Fish and Game (CDFG).[35] In addition to measures outlined in the project SWPPP for graded or exposed soil surfaces, the applicant's construction contractor(s) and field engineer should implement temporary measures, where required, to minimize channel sedimentation during bridge construction. Due to the good quality stream habitat and culverting impacts to aquatic life, a bypass pipe through the work area is not recommended. Some form of cofferdam segregating the work areas from the active channel area would be preferable. All such measures would be described in the Stream Alteration Agreement submittal and would be subject to approval by CDFG.
- Submit an application or letter of notification, as appropriate, to the U.S. Army Corps of Engineers for an Army Fill Permit, in accordance with provisions of the Nationwide Permit Program.
- Acquire a Waiver of Water Quality Certification from the RWQCB.

[35] Now the California Department of Fish and Wildlife.

Revised Mitigation Measures

The 2005 EIR identified Mitigation Measure 5.1-4 (now renumbered 5.1-4(a)) to address a potentially significant impact from groundwater seepage. New Mitigation Measure 5.1-4(b), below, would provide additional protection from seepage impacts during Project construction. New or revised text is underlined and deleted text is shown in ~~strikethrough~~.

Mitigation Measure 5.1-4(a) (Condition of Approval No. 17): Drainage devices should be employed during grading to reduce the potential for seepage from area D to the adjacent residential development. This should include a subdrain system to intercept this seepage water and a surficial drainage system to reduce the ponding and infiltration of surface water into the landslide. The drainage system should be designed by the project engineer and installed under his/her supervision. With proper surficial and subsurface drainage provisions, the impact of off-site seepage should be reduced to a less-than-significant level. *[This mitigation should be applied to the proposed Oaks Senior Living Community buildings.]*

Mitigation Measure 5.1-4(b): The construction contractor shall slope temporary excavations no steeper 1-1/2:1 or shall install shoring as excavations proceed in order to maintain lateral support. Shoring shall be designed to resist lateral earth pressures as outlined in the Temporary Shoring section of August 2016 geotechnical report prepared for the project by Herzog Geotechnical Consulting Engineers, or as updated by the geotechnical engineer of record. In addition, the construction contractor shall implement the following additional measures:

- To the maximum extent feasible, all excavations and other site grading shall be performed during the late summer and fall months to minimize the potential for seepage to infiltrate the excavations required for Project construction. To the extent feasible, excavation within soft areas shall be done from the unexcavated perimeter areas using an excavator. Trucks and other construction equipment shall be restricted from the soft subgrade soils.
- To protect construction workers within excavations from material sloping into the excavations that may occur from exposure of relatively weak soils and bedrock with bedding, fracture, and shear surfaces, all excavations shall be laid back or shored in conformance with applicable federal Occupational Safety and Health Administration (OSHA) standards. Shoring may be achieved with cantilevered or tied-back soldier piers with lagging, tied-back shotcrete walls, soil nail walls, internally braced walls, or other equally effective measures. Adequate drainage facilities shall be provided to prevent hydrostatic buildup behind the shoring.
- Excavations shall be dewatered as necessary to address intrusion of water through seepage. If seasonal high moisture contents of some near surface soils cause soft "pumping" conditions in and adjacent to excavations, the construction contractor shall perform additional overexcavation, install geotextile reinforcement, and/or import granular fill to provide adequate soil stability.
- Where potentially unstable deposits will remain upslope of proposed improvements, debris fences or catchment/deflection berms shall be installed to protect workers and

equipment. The debris fences shall consist of catchment areas and high-energy, ring net barriers (GeoBrugg® or equivalent). Material accumulated behind the barriers shall be removed periodically as necessary to maintain adequate catchment. Any occasional damage to fences caused by the high lateral forces of slide debris shall be repaired or, if necessary, the fences shall be replaced.

- All other construction and design recommendations presented in the Herzog August 2016 geotechnical report shall be implemented unless updated or modified by the Project geotechnical engineer of record.

Conclusion

With application of the above mitigation measures, implementation of the proposed Project would not result in any new or substantially more severe geology and soils impacts than those previously evaluated in the 2005 EIR.

8. Greenhouse Gas Emissions

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
8. Greenhouse Gas Emissions. Would the Project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	n/a	No	No	Yes	n/a
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	n/a	No	No	Yes	n/a

Discussion

8-a) The Final EIR and Final EIR Second Amendment did not address greenhouse gas (GHG) emissions as these issues were not contained within Appendix G of the *CEQA Guidelines* or the Bay Area Air Quality Management District's (BAAQMD) *CEQA Air Quality Guidelines* (dated December 1999) applicable at the time of these publications.[36] Therefore, the Final EIR and Final EIR Second Amendment did not quantify and compare the GHG emissions to

[36] Bay Area Air Quality Management District, *CEQA Guidelines Assessing the Air Quality Impacts of Projects and Plans*, December, 1999. Accessed December 11, 2017 at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqaguid.pdf

significance thresholds. The current Appendix G of the *CEQA Guidelines* address GHG emissions and BAAQMD's current *CEQA Air Quality Guidelines*[37] provide significance thresholds for GHG emissions. Therefore, as part of this Addendum, the estimated GHG emissions associated with the proposed Project were compared to the current thresholds of significance for operational GHG emissions to determine potential impacts.

2017 Greenhouse Gas Assessment Update

The current BAAQMD's *CEQA Air Quality Guidelines* has established separate thresholds of significance for operational GHG emissions from stationary sources (such as generators, furnaces, and boilers) and non-stationary sources (such as on-road vehicles). The threshold for stationary sources is 10,000 metric tons of carbon dioxide-equivalents (CO_2e)[38] per year (i.e., emissions above this level may be considered significant). For non-stationary sources, three separate thresholds have been established:

- Compliance with a Qualified Greenhouse Gas Reduction Strategy (i.e., if a project is found to be out of compliance with a Qualified Greenhouse Gas Reduction Strategy, its GHG emissions may be considered significant); or
- 1,100 metric tons of CO_2e per year, known as a bright-line threshold (i.e., emissions above this level may be considered significant); or
- 4.6 metric tons of CO_2e per service population per year, known as an efficiency threshold (i.e., emissions above this level may be considered significant). Service population is the sum of residents/students/employees expected for a development project.

For quantifying a project's GHG emissions, BAAQMD currently recommends that all GHG emissions from a project should be estimated, including a project's direct and indirect GHG emissions from operations. Direct emissions are emissions produced from onsite combustion of energy, such as natural gas used in furnaces and boilers, emissions from industrial processes, and fuel combustion from mobile sources. Indirect emissions are emissions produced offsite from energy production and water conveyance due to a project's energy use and water consumption.

California Air Resources Board's (CARB) California Emission Estimator Model (CalEEMod, Version 2016.3.1)[39] was used to quantify GHG emissions associated with proposed Project construction activities, as well as long-term operational emissions produced by motor vehicles, natural gas combustion for space and water heating, electricity use, and

---

37 Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2017. Accessed December 11, 2017 at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en

38 Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

39 California Air Pollution Control Officers Association, *CalEEMod User's Guide Version 2016.3.1*, September 2016. Accessed December 11, 2017 at http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2

landscape maintenance equipment. The supporting CalEEMod documentation is provided in Appendix A.

CalEEMod is a land use emissions model that estimates construction emissions due to demolition and construction activities and operations. CalEEMod is the latest emission model and reflects CARB's current understanding of emission factors and calculation methodologies and how emissions have changed over time and are projected to change in the future.

The proposed Project's estimated construction and operational GHG emissions are presented in Table 8-1. The estimated construction GHG emissions are 675 metric tons of CO_2e (including 40 metric tons of CO_2e during bridge construction). There is no BAAQMD CEQA significance threshold for construction-related GHG emissions. The GHG operational emissions would be 854 metric tons of CO_2e per year, which is below the BAAQMD brightline threshold of 1,100 metric tons of CO_2e. A majority of the GHG emissions would be associated with motor vehicles.

Although the Final EIR and EIR Second Amendment were not required to address GHG emissions, the proposed Project would have a less than significant impact on GHG emissions given the current requirements and current emission estimation models. Therefore, the proposed Project would not result in new or substantially more severe impact on GHG emissions.

Table 8-1: Estimated Operational Greenhouse Gas Emissions

Source	Annual CO_2e Metric Tons
Area Sources	12.0
Energy	161
Mobile	605
Solid Waste	59.2
Water	16.8
Total Operational Emissions	**854**
BAAQMD Bright-line Threshold	1,100
Potentially Significant?	No

SOURCE: CARB CalEEMod Version 2016.3.1.

8-b) The Final EIR and Final EIR Second Amendment did not address compliance with applicable climate action plans, policies, and regulations adopted for the purpose of reducing the emissions of GHG because they were prepared prior to the passage of Assembly Bill 32, the California Global Warming Solutions Act of 2006[40] and prior to the adoption of the Marin County Climate Action Plan. Secondly, GHG issues were not addressed in Appendix G of the *CEQA Guidelines* at the time, and there was no

[40] California Health and Safety Code Division 25.5, Sections 38500-38599.

requirement to address compliance with GHG reduction plans, policies, and regulations. Because GHG impact analysis is now required by CEQA, this Addendum provides a new analysis of the proposed Project's consistency with plans, policies, and regulations for reduction of GHGs.

2017 Greenhouse Gas Assessment Update

Assembly Bill (AB) 32 established regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and established a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce Statewide GHG emissions from stationary sources. 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 CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the State reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce Statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB must adopt regulations to achieve reductions in GHGs to meet the 1990 emissions cap by 2020.

AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by CARB in 2008 and must be updated every five years. The initial AB 32 Scoping Plan contains the main strategies California will use to reduce the GHG that cause climate change. The initial Scoping Plan has a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 program implementation fee regulation to fund the program. In August 2011, the initial Scoping Plan was approved by CARB.

The 2013 Scoping Plan Update builds upon the initial Scoping Plan with new strategies and recommendations. The 2013 Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The 2013 Update defines CARB climate change priorities for the

next five years and sets the groundwork to reach California's long-term climate goals set forth in Executive Order S-3-05.[41] The 2013 Update highlights California progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. In the 2013 Update, nine key focus areas were identified (energy, transportation, agriculture, water, waste management, and natural/working lands, along with short-lived climate pollutants, green buildings, and the cap-and-trade program). On May 22, 2014, the First Update to the Climate Change Scoping Plan was approved by CARB, along with the finalized environmental documents.

In September of 2016, the AB 32 was extended to achieve reductions in GHG of 40 percent below 1990 levels by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries. CARB's 2017 Climate Change Scoping Plan Update is designed to accomplish this goal.[42]

In 2015, the County of Marin developed a Climate Action Plan.[43] The Climate Action Plan is a roadmap for how the County will reduce energy consumption and GHG emissions to meet State GHG emissions targets established by AB 32 and expanded by SB 32. In addition, the *Marin Countywide Plan* outlines action items pertaining to sustainability including the preparation of policies that promote efficient management and use of resources in order to minimize GHG emissions.[44] Marin County has also developed the *Residential/Commercial Green Building Requirements and Commercial New Construction Green Building Guide*.[45] [46] The *Marin County Climate Action Plan*, *Marin Countywide Plan*, and *Residential/Commercial Green Building Requirements*, and *Commercial New Construction Green Building Guide* are designed to achieve the goal for GHG emissions reductions (compared to 1990 levels) by 40 percent before 2030 and by 80 percent before 2050 and, thus, adhere to the AB 32/SB 32 goals. The proposed Project would result in a significant impact if it would be in conflict with these AB 32/SB 32 goals. With adherence to *Marin County Green Building Requirements* and *Commercial New Construction Green Building Guide*, the proposed Project would be consistent with County plans, policies, and

---

41 In 2005, in recognition of California's vulnerability to the effects of climate change, then-Governor Arnold Schwarzenegger established Executive Order S-3-05, which sets forth the following target dates by which Statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

42 California Air Resource Board, *2017 Climate Change Scoping Plan*, November 2017. Accessed February 21, 2018 at https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

43 Marin County, *Marin County Climate Action Plan*, July 2015. Accessed December 11, 2017 at http://www.marincounty.org/ depts/cd/divisions/sustainability/climate-and-adaptation.

44 Marin Countywide Plan, Adopted November 6, 2007. Accessed December 11, 2017 at http://www.smwlaw.com/files/Marin_CountyWide_Plan.pdf.

45 Marin County Community Development Agency, *Green Building Requirements Fact Sheet Standards for Compliance.* Accessed December 11, 2017 at https://www.marincounty.org/~/media/files/departments/cd/planning/sustainability/green-building/2016_standards_for_compliance_county-of-marin.pdf?la=en.

46 Marin County Community Development Agency, *Commercial New Construction Green Building Guide,* Accessed February 21, 2018 at https://www.marincounty.org/~/media/files/departments/cd/planning/sustainability/green-building/5-county-of-maringbononresidentialnew-construction.pdf?la=en.

regulations for reduction of GHG, and would therefore also be consistent with AB 32/SB 32 and other Statewide goals for GHG reduction. Therefore, the proposed Project would not result in new or substantially more severe impact on consistency with AB 32/SB 32 and other Statewide goals for GHG reduction than was previously evaluated in the 2005 EIR.

2005 EIR Mitigation Measures

GHG emissions were not addressed within the Final EIR because these issues were not contained within Appendix G of the *CEQA Guidelines* or the BAAQMD's *CEQA Air Quality Guidelines* utilized and applicable at the time.

Conclusion

Implementation of the proposed Project would not result in any new impacts on GHG emissions and the ability to comply with AB 32/SB 32 and other Statewide goals for GHG reduction.

9. Hazards and Hazardous Materials

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
9. Hazards and Hazardous Materials. Would the Project:					
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	n/a	No	No	No	n/a
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	n/a	No	No	No	n/a
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	n/a	No	No	No	n/a
d. Be located on a site which is included on a list of	n/a	No	No	No	n/a

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
9. Hazards and Hazardous Materials. Would the Project:					
hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?					
e. For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	n/a	No	No	No	n/a
f. For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working on the Project area?	n/a	No	No	No	n/a
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	n/a	No	No	No	n/a
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Final EIR, pgs. 5.8-3 to 5.8-5	No	No	No	Yes

Discussion

With the exception of the potential for exposure of the project to wildfires, the 2005 EIR did not address potential impacts related to hazards and hazardous materials. The information presented in this section represents new analysis applicable to the current proposed Project. The Final EIR discussion of potential wildfire impacts is summarized in Item 8-h.

9-a) The proposed Project would not involve the routine use or storage of hazardous materials other than small quantities of cleaning agents, paints, and similar materials commonly used for building maintenance. Although there would be temporary use of hazardous materials during Project construction for the fueling and maintenance of construction equipment, the use of these materials would be controlled through Best Management Practices identified in the required Stormwater Pollution Prevention Plan (SWPPP). Therefore, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

9-b) The primary way a project could 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 is by locating a project on or near a property where hazardous materials spills or releases have occurred. To assess this potential, a Phase I Environmental Site Assessment (ESA) of the site was performed in 2005 by Kleinfelder, Inc. to identify recognized environmental conditions on the site, including the presence or likely presence of any hazardous substances that could create a significant hazard to the public or the environment, whether through an existing release, past release, or threat of a release into structures, into the ground, or into surface or groundwater.[47] As part of the Phase I ESA, Environmental Data Resources, Inc. (EDR) reviewed 54 publicly available local, State, and federal environmental databases to identify hazardous waste and hazardous materials release sites in the Project vicinity. The proposed Project site was not listed in any of the databases reviewed.

Two facilities were listed within one-quarter mile of the site, a Chevron gas station located at 100 Marinwood Avenue and a Unocal gas station located at 101 Marinwood Avenue, both located about 950 feet (0.18 mile) north of the northern end of the current Project site (i.e., the location of the proposed bridge crossing of Miller Creek). The Chevron station is now a Valero gas station, and the property at 101 Marinwood Avenue now consists of a vacant lot covered with grasses, with trees and shrubs growing around the perimeters. Both of these sites are listed as sites of leaking gasoline underground storage tanks (USTs). The San Francisco Bay Regional Water Quality Control Board (RWQCB) closed the investigation cases for these facilities in 1997 (Chevron) and 1995 (Unocal). The Phase I ESA concluded that these sites do not pose an environmental hazard to the proposed Project.

The environmental database search identified two additional sites located within 1 mile of the Project site. Rich Electric, located at 110 Carlos Drive, was listed as the site of a leaking gasoline UST. The case for this facility was listed as closed by the RWQCB in 1995, and it poses no environmental risk to the proposed Project.

---

[47] Kleinfelder, Inc., *Phase I Environmental Site Assessment, 200 Lucas Valley Road, San Rafael, California*, February 1, 2005.

The second facility, Fairchild Camera & Instrument ("Fairchild"), located at 4300 Redwood Highway, is listed in the Resource Conservation and Recovery Act Small Quantity Generators (RCRA-SQG), U.S. Environmental Protection Agency (USEPA) Facility Index System (FINDS), USEPA RCRA Corrective Action Sites (CORRACTS), USEPA Comprehensive Environmental Response, Compensation, and Liability Information System No Further Remedial Action Planned (CERC-NFRAP), and Historical UST Registered (HIST UST) databases. A release of volatile organic compounds (VOCs) and other solvents was discovered at the facility in 1982.

Assessment of the Fairchild site and surroundings has determined that solvents are present in soil and groundwater at the facility at several concentrated areas near identified former chemical use areas. Lateral and vertical migration of solvents in groundwater appears to be limited due to low relative permeability of the soil. Remediation activities were performed that included constructing a slurry wall around the interior property boundary, and installation of an on-site groundwater extraction and treatment system. The Phase I ESA concluded that the facility does not have the potential to affect soil and groundwater conditions at the Project site because the facility is located 1 mile down-gradient of the Project site relative to reported groundwater flow direction, and contaminants at the facility have exhibited very little lateral migration.

The Phase I ESA also included a reconnaissance of the site by a Registered Environmental Assessor, who did not observe any evidence of the use, storage, or disposal of hazardous chemicals at the site, and did not identify the presence of any other Recognized Environmental Concerns (RECs). The report did note evidence of the use of petroleum products at the parcel located adjacent to the northeast comer of the Fairchild site, where an above ground fuel storage tank is located at a school bus depot for the Dixie School District. However, no spill or stains were observed on the concrete pad beneath the tank or on the asphalt pavement surrounding the concrete pad, and the property was not listed in any of the environmental databases that were searched during performance of the Phase I ESA.

Based on interviews with people knowledgeable about the Project site and a review of historical topographic maps dating to 1914 and historical aerial photographs dating to 1953, Kleinfelder determined that the only known historical use of the site has been for cattle and horse grazing, with no active use of the site for these purposes since the mid- to late-1980s. The site has remained as undeveloped forest and grassland. The Phase I ESA concluded that there are no RECs present at the site. The proposed Project would therefore not create a significant hazard to the public or the environment due to a release of hazardous materials into the environment. Although the Phase I ESA summarized above did not identify any properties of concern other than those discussed above, a recent environmental database search performed as part of the current environmental review identified a regulatory case associated with a former dry cleaners located in the nearby Marinwood Shopping Center. This case is discussed in Item 9-d, below, but as noted therein,

that regulatory case does not invalidate or contradict the conclusions presented in the 2005 Phase I ESA.

9-c) There are no schools within one-quarter mile of the Project site; the nearest school is Mary E. Silveira Elementary School, located more than one-half mile northwest of the site. Furthermore, as noted in Item 9-a, the proposed Project would not involve handling, storage, or emissions of hazardous or acutely hazardous materials, substances, or waste. There would be no impact from potential emissions of hazardous materials or waste near school sites.

9-d) The list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 actually consists of several lists, including:

- A list of hazardous waste sites compiled by the California Department of Toxic Substances Control (DTSC);
- A list of contaminated water wells compiled by the California Department of Health Services (DHS) (subsequently reorganized into the California Department of Health Care Services and the California Department of Public Health);
- A list of leaking underground storage tank sites and solid waste disposal facilities from which there is a migration of hazardous waste, compiled by the State Water Resources Control Board (SWRCB); and
- A list of solid waste disposal facilities from which there is a migration of hazardous waste, compiled by the Local Enforcement Agency (LEA). These lists are consolidated by the Department of Resources Recycling and Recovery (CalRecycle).

Each of these lists must be updated at least annually, and must be submitted to the Secretary for Environmental Protection, the head of the California Environmental Protection Agency (CalEPA). DTSC maintains the EnviroStor database for purposes of complying with Section 65962.5, while the SWRCB maintains the GeoTracker database. Both of these databases were consulted during this environmental review. The Project site is not listed on the EnviroStor database and there were no hazardous waste sites identified within 1,000 feet of the Project site on the EnviroStor database.[48] The Project site is not listed on the GeoTracker database and the only facilities identified within 1,000 feet of the Project site on the GeoTracker database are for the two closed cases (Chevron and Unocal) discussed in Item 8-b and one active cleanup site, the former Prosperity Cleaners at 187 Marinwood Avenue.[49] As discussed in Item 8-b, the former gas stations do not pose a hazard to the Project site.

---

[48] California Department of Toxic Substances Control, EnviroStor Site/Facility Search, Accessed November 15, 2017 at: http://www.envirostor.dtsc.ca.gov/public/.

[49] State Water Resources Control Board, GeoTracker Database, Accessed November 15, 2017 at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=30+Marinwood+Avenue,+San+Rafael,+CA.

The regulatory case for the former Prosperity Cleaners, located in the Marinwood Plaza Shopping Center, was opened by the San Francisco Bay Regional Water Quality Control Board (RWQCB) in 1990, and the agency has overseen various remediation activities that have occurred at the site during the ensuing years. The Prosperity Cleaners was identified as a source of tetrachloroethene (also known as perchloroethylene) (PCE) released to the environment. A series of Geoprobe borings were advanced on and near the shopping center property during a succession of subsurface investigations, with soil and groundwater "grab" samples collected and submitted to laboratory analysis. Although soil vapor sampling was also conducted, those results are not discussed here because there is no potential for soil vapor at this property to affect the Project site.

Subsurface investigations of the property in 2007 and 2009 identified the VOCs trichloroethane (TCE), cis-1,2-dichloroethene (DCE), and PCE at concentrations of up to 1,700 micrograms per kilogram (µg/mg) in soil and 5,900 micrograms per liter (µg/L) in groundwater beneath the dry cleaner.[50]

Following a series of soil treatments and other remediation activities over the years, the RWQCB approved a final cleanup plan on April 19, 2016, and in January and February of 2017, 510 tons of impacted soil were removed from beneath the former dry cleaner facility and disposed of at a permitted hazardous waste disposal facility. In addition, 5,105 gallons of groundwater were removed and discharged to the local sanitary sewer in accordance with a permit issued by the Las Gallinas Valley Sanitation District. Prior to backfilling the excavations with clean soil, amendments were added to treat the remaining soil and groundwater contamination. Remediation action was completed for soils, and 49 confirmation soil samples met the cleanup levels specified in the RWQCB's cleanup order.[51]

As of April 27, 2017, remediation of groundwater was not yet complete, but the RWQCB had approved a Work Plan submitted by Geologica on behalf of the property owners, Marinwood Plaza, LLC.[52] The Work Plan calls for installation of eight temporary observation wells that will be used to inject a mixture of organic substrate, finely ground zero valent iron, and dechlorinating bacterial cultures within an 80-foot-long section of contaminated groundwater plume. Based on the monitored effectiveness of treatment, a final design of an *in-situ* treatment system will be prepared and implemented, subject to RWQCB approval.

The Phase I ESA summarized in Item 8-b stated that groundwater flow in the region of the Project site is in an east to southeast direction, though it states that local variations occur

---

50 Geologica, Inc., *Report, Limited Subsurface Investigation, Marinwood Mall Property, RWQCB Case No. 21S0053, Marinwood Avenue, San Rafael, California*, February 2009.

51 San Francisco Bay Regional Water Quality Control Board, *Approval of Onsite Soil Excavation Report, Portion of Task 7 – Former Prosperity Cleaners/Marinwood Plaza, 187 Marinwood Avenue, San Rafael, Marin County*, File No. 21S0053 (RAL). April 13, 2017.

52 San Francisco Bay Regional Water Quality Control Board, *Approval of Pilot Test Work Plan – Former Prosperity Cleaners/Marinwood Plaza, 187 Marinwood Avenue, San Rafael, Marin County*, File No. 21S0053 (RAL). April 27, 2017

due to topography and surface drainage. The geotechnical report prepared for the Project, discussed in Item 6-a, stated that groundwater typically migrates downslope on hillsides. With local topography in the vicinity of the Project site sloping downward toward the east and surface drainage flowing eastward (e.g., Miller Creek), this provides further indication that the flow of groundwater underneath the former Prosperity Cleaners is away from the Project site, toward the east.

Given the low residual levels of groundwater contamination at the former Prosperity Cleaners site in the Marinwood Plaza Shopping Center and the inferred gradient of groundwater flow, there is no evidence or reason to suspect that the groundwater at the former Prosperity Cleaners site poses an environmental risk to the proposed Project site. Therefore, there would be no impact from proximity to hazardous materials sites compiled pursuant to Government Code Section 65962.5.

9-e) The nearest airport to the Project site is the Marin County Airport located at Gnoss Field, located approximately 7.7 miles north of the site. The site is not within the planning area of the airport land use plan, and there is no potential for the proposed Project to interfere with airport operations or cause a safety hazard for people residing or working on the Project site. There would be no impact from proximity to an airport.

9-f) The nearest private airstrip to the Project site is the San Rafael Airport, owned by Marin Ranch Airport, Inc. It is located approximately 1 mile southeast of the Project site. Based on the orientation of the single runway and the noise contours for the airport shown on Exhibit 4.4-6 of the *Marin Countywide Plan Update Draft Environmental Impact Report*, the axis of flight departures and arrivals for this airport is oriented in a northeast/southwest direction, away from the Project site.[53] Given the steep, hilly, forested terrain surrounding the Project site, it may be assumed that small aircraft arrivals and departures would not be directed over the Project site. There are no characteristics of the proposed Project that would increase exposure of people to safety hazards related to operations at the San Rafael Airport. There would be no impact related to the proximity to a private airstrip.

9-g) The *Marin County Local Hazard Mitigation Plan* (LHMP), adopted in April 2005 and updated in 2012, describes strategies for sustaining and building on current mitigation activities to ensure future safety of lives, preservation of property, and protection of the environment during times of disaster. The *Marin Countywide Plan Update Draft Environmental Impact Report* discussed the LHMP but identified no conflicts associated with buildout anticipated under the Countywide Plan. The proposed Project is consistent with the *Oakview Master Plan* approved in 2005 and is consistent with growth anticipated under the Countywide Plan. There are no characteristics of the proposed Project that would interfere with or impair implementation of an adopted emergency response plan or emergency evacuation plan.

---

[53] County of Marin Community Development Agency, *Marin Countywide Plan Update Draft Environmental Impact Report*, State Clearinghouse No. 2004022076, Section 4.4, Noise, January 2007.

9-h) (Wildfire hazards are also addressed in Section 15, Item 15-a.) The Final EIR identified a significant impact due to exposure of people or structures to wildland fire hazards (Impact 5.8-2 [Wildland-Building Fire Exposure Impacts]). The EIR determined that implementation of Mitigation Measure 5.8-2 (implementation of Fire Management Plan and Vegetation Management Plan) would reduce the impact to a less-than-significant level. The Final EIR stated that the site provides a large amount of natural fuel source, with trees and downed timber providing heavy fuels and grasses, weeds, brush, shrubs, and small trees providing small to medium fuels that ignite more easily but are easier to extinguish. The slopes on the site allow fires to spread more rapidly than on flat ground. A history of fires on the site reinforces the risk of wildfire at the site. A fire that occurred on the site on September 29, 1994 consumed ten acres, and another fire in 2000 started at the end of Erin Drive and burned toward the ridge top. The EIR also found that construction activities could accidentally ignite a wildfire before water delivery and communications systems are in place. Previously adopted Mitigation Measure 5.8-2 includes measures to implement during project construction in order to reduce the risk of wildfire during construction. These measures include clearing brush and other potential fire fuel from construction areas, maintaining and clearly marking on-site fire response equipment, training construction workers in the use of on-site fire response equipment, and ensuring a communication device (e.g., cell phone) is on site at all times for summoning emergency response.

Impact 5.8-2 would continue to apply to the proposed Project, and implementation of previously adopted Mitigation Measure 5.8-2 would still be required. The Project does not include any components, features, or characteristics with the potential to substantially increase the severity of Impact 4.10-10 or cause any new impacts related to wildland fire hazards. Therefore, the proposed Project would not result in a new or substantially more severe wildland fire hazard impact.

Revised 2005 EIR Mitigation Measures

Although the Final EIR did not discuss impacts related to hazardous materials, the Project would not have any significant impacts related to hazardous materials. The Final EIR did identify a mitigation measure to reduce a wildfire hazard at the site, which was adopted and made a condition of project approval. Previously adopted Mitigation Measure 4.8-2 in the Final EIR would continue to apply to the proposed Project. A minor revision has been made to the mitigation measure to remove a statement that is no longer applicable.

Mitigation Measure 4.8-2 (Condition of Approval No. 46): The following measures would be required to reduce the potential impacts of wildland fires:

- The Fire Management Plan should include both a Vegetation Modification Plan (to ensure that a minimum defensible space—30 to 100 feet depending on specific site conditions—would be provided by reducing flammable vegetation and fuel load) and a Vegetation Maintenance Plan (to describe the on-going annual vegetative maintenance program). The annual Vegetation Maintenance Plan reports would address the site's fire hazards based on fuel load, slope, aspect, topography, and other factors and should determine

priority problem areas on the site where fire safety measures should be emphasized. Approval of the Fire Management Plan by the MFD [Marinwood Fire Department] would be required before construction, and implementation would be required prior to framing. ~~Because the Master Plan does not yet describe long-term site maintenance aspects of the project (such as establishment of a homeowners' association or equivalent organization composed of all the site's residential, assisted living, and open space landowners), the Vegetation Maintenance Plan should establish a mechanism and identify who would be responsible for implementing all elements of the Plan.~~

The MFD has materials and guidelines to prepare mitigation plans for defensible space. New plantings of trees and vegetation with a high fire risk (such as Bishop Pine [*Pinus muricata*], Tan Oak [*Lithocarpus densiflorus*], California Bay [*Umbellularia californica*], and Coyote Brush [*Bacharis pilularis*]) should be prohibited within the defensible space zone of buildings. Existing trees with a high fire risk within the defensible space zone of buildings (such as California Bay) could be retained with permission of the MFD and would require special consideration in the Vegetation Management Plans, as described below. Resistant plantings should be encouraged (such as Coast Live Oak [*Quercus agrifolia*], Pacific Wax Myrtle [*Myrica californica*], California Lilac [*Ceanothus* spp.], and Toyon [*Heteromeles arbutifolia*]), all of which are included in the Conceptual Landscape Plan.

- Implement fire prevention measures during construction. The applicant and individual residential or assisted living developers should be responsible for implementing the measures which should include (but not be limited to) the following:
    - Installing all project roadway and water requirements before any residential sidewall construction on the site, consistent with Section 10.502 of the Uniform Fire Code.
    - Clearing brush and other potential fire fuel around construction areas.
    - Maintaining and clearly marking on-site fire response equipment (such as fire extinguishers, fire retardant blankets, shovels, buckets, etc.) at each construction area.
    - Ensuring that all construction workers are trained to use on-site fire response equipment and workplace safety measures.
    - Locating and clearly identifying a cellular phone or other communication device on-site at all times during construction.

Other than previously adopted Mitigation Measure 5.8-2 addressing wildfire hazard at the site, the 2005 EIR did not identify potentially significant impacts related to hazards and hazardous materials, and no mitigation measures were required aside from Mitigation Measure 5.8-2. No new substantially more severe hazards or hazardous materials impacts than those previously evaluated in the 2005 EIR were identified in the Final EIR Second Amendment, and no new mitigation measures were required. The proposed Project is consistent with the project evaluated in the Final EIR Second Amendment.

Conclusion

With application of previously adopted Mitigation Measure 5.8-2, implementation of the proposed Project would not result in any new or substantially more severe hazards or hazardous materials impacts than those previously evaluated in the 2005 EIR.

10. Hydrology and Water Quality

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
10. Hydrology and Water Quality. Would the Project:					
a. Violate any water quality standards or waste discharge requirements?	Final EIR, pgs. 5.2-22 to 5/2-28; Final EIR Second Amendment, pg. 8	No	No	Yes	Yes
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	Final 2005 EIR, pgs. 5.2-7 to 5/2-8; Final EIR Second Amendment, pgs. 7–8	No	No	No	Yes
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Final EIR, pgs. 5.2-22 to 5/2-24; Final EIR Second Amendment, pgs. 7–8	No	No	No	Yes
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Final EIR, pgs. 5.2-13 to 5/2-24; Final EIR Second Amendment, pgs. 7–8	No	No	No	Yes
e. Create or contribute runoff water which would exceed	Final EIR, pgs. 5.2-13 to 5/2-24; Final EIR Second	No	No	Yes	Yes

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
10. Hydrology and Water Quality. Would the Project:					
the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	Amendment, pgs. 7–8				
f. Otherwise substantially degrade water quality?	Final EIR, pgs. 5.2-22 to 5/2-28; Final EIR Second Amendment, pg. 8	No	No	Yes	Yes
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Final EIR, pgs. 5.2-1 to 5/2-28; Final EIR Second Amendment, pg. 8	No	No	Yes	Yes
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Final EIR, pgs. 5.2-1 to 5/2-28 and 5.2-13 to 5.2-24; Final EIR Second Amendment, pg. 8	No	No	Yes	Yes
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Final EIR, pg. 5.2-10	No	No	No	n/a
j. Inundation by seiche, tsunami, or mudflow?	Final EIR, pg. 5.2-10	No	No	No	n/a

Discussion

10-a) Urban development and the impervious surfaces associated with it (pavements, buildings, etc.) increase the pollutant load of heavy metals and other contaminants in stormwater runoff, which can impair water quality in downstream receiving waters. San Francisco Bay, the ultimate destination of a large portion of Marin County's stormwater runoff, including that from the Project site, is listed by the U.S. Environmental Protection Agency (EPA) as an impaired water body on EPA's 303(d) List of Impaired Water Bodies, compiled in compliance with the federal Clean Water Act. This designation indicates that a water body contains one or more pollutants that exceed protective water quality standards.

Placement of a water body on the 303(d) list initiates development of a Total Maximum Daily Load (TMDL) for each pollutant that exceeds water quality standards. TMDLs are action plans to restore water quality. They examine sources of listed contaminants, identify the mechanisms and pathways by which they affect downstream water bodies, and recommend actions to control contaminant sources and reduce contaminant loading in receiving waters.

The Final EIR reported that due to development and continued grazing in parts of the Miller Creek Watershed, it was likely that elevated levels of nitrate and ammonia, fecal coli form bacteria, petrochemical residues, heavy metals, and fertilizer and pesticide constituents were adversely affecting water quality in Miller Creek. The discussion noted that contaminant concentrations in stormwater runoff typically would be greatest during the first significant storms of the winter and during the early phases of succeeding runoff events.

The Final EIR identified Impact 5.2-7 (Site Erosion and Downstream Sedimentation and Flooding) as a potentially significant impact on water quality, finding that site grading and other construction activities would expose large areas of bare soil that would be subject to erosion by rainfall and slope runoff, with eroded sediments being discharged to Miller Creek, which flows to San Francisco Bay. A similar impact (Impact 5.2-8 – Site Erosion and Downstream Sedimentation and Flooding) was identified for construction of the bridge crossing of Miller Creek. Implementation of previously adopted Mitigation Measures 5.2-7 (preparation and implementation of a Stormwater Pollution Prevention Plan) and 5.2-8 (acquisition of a Streambed Alteration Agreement from the California Department of Fish and Wildlife) would reduce these impacts to less than significant.

Additionally, the Final EIR identified Impact 5.2-10 (Water Quality – Violation of Water Quality Standards) as a potentially significant impact on water quality, finding that the proposed residential and commercial development would increase stormwater contaminant loading for some heavy metals—including copper, lead, and zinc—to levels exceeding those listed by regulatory agencies for the protection of aquatic habitats. The project would also increase oil and grease concentrations in Miller Creek and the Gallinas Creek tributary due to site runoff. Although the levels would not exceed regulatory agency thresholds, the Final EIR considered this to be a significant impact because the San Francisco Bay Regional Water Quality Control Board (RWQCB) considers even small concentrations to be significant. Use of herbicides and pesticides for landscape maintenance could also potentially result in the downstream migration of nutrient and contaminant residues in stormwater drainage channels leading to the then-recently constructed wetland pool in the industrial park area east of Highway 101, and potentially to Gallinas Creek Marsh. Implementation of previously adopted Mitigation Measure 5.2-10 (design on-site stormwater detention basins for water quality treatment, implement regular street and parking lot sweeping, incorporate grass-lined swales on site for stormwater treatment, revegetate disturbed areas prior to rainy season, and implement irrigation scheduling and chemical management plan) would reduce this impact to a less-than-significant level.

The Final EIR identified other impacts that could adversely affect water quality, but they are focused on flooding, and are addressed in Item 9-d, below.

The Final EIR Second Amendment determined that the magnitude of Impacts 5.2-7 and 5.2-10 would be incrementally reduced for the Mitigation Alternative in comparison to the original office project, but that Impacts 5.2-7, 5.2-8, and 5.2-10 would all continue to apply and would remain significant, with implementation of the same mitigation required, which would reduce the impacts to less-than-significant levels.

Regulatory Changes Since 2005 EIR Certification

Two key regulatory changes pertaining to water quality standards and waste discharge requirements have occurred since certification of the 2005 EIR. The first pertains to EPA's 303(d) List of Impaired Water Bodies, which was updated in 2010. When the 2005 EIR was certified, only one TMDL—for the pesticide diazinon and other pesticides—had been prepared for Marin County waterways. This TMDL, titled Urban Creeks Pesticide Toxicity, applies to all urban creeks in the San Francisco Bay Area. Since that time, additional TMDLs have been prepared for mercury in San Francisco Bay, Tomales Bay, and Walker Creek. They have also been prepared for pathogens in Richardson Bay and Tomales Bay, and for polychlorinated biphenyls (PCBs) in San Francisco Bay. More recently, the EPA approved a Selenium TMDL for North San Francisco Bay on August 23, 2016. The North San Francisco Bay has been identified as impaired by selenium because selenium concentrations found in the North Bay biota in the 1990s were at levels determined to result in bioaccumulation in fish and wildlife. Although selenium is an essential micronutrient, in elevated concentrations it can interfere with reproduction and in higher concentrations it can cause acute toxicity. Dietary uptake of particulate selenium is the most prevalent exposure pathway for aquatic organisms, especially predators; some organisms bioaccumulate selenium more efficiently than others. In the North Bay, selenium bioaccumulation has been detected only in clam-eating bottom feeders, such as white sturgeon (*Acipenser transmontanus*) and Sacramento splittail (*Pogonichthys macrolepidotus*). Sturgeon feed predominantly on benthic organisms, including introduced clams (e.g., *Potamocorbula amurensis*), which are very efficient selenium bioaccumulators. Consequently, sturgeon are at risk for selenium toxicity. The Selenium TMDL identifies actions to restore clean water to North San Francisco Bay. Projects complying with requirements of the National Pollutant Discharge Elimination System, discussed below, contribute to the EPA's implementation of the TMDLs applicable to the Bay Area.

The second relevant regulatory change since certification of the 2005 EIR was adoption by the RWQCB of updated National Pollutant Discharge Elimination System (NPDES) requirements for protecting water quality in stormwater runoff from new development sites. In September 2009 the RWQCB adopted the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-

0009-DWQ) (the "Construction General Permit").[54] The Construction General Permit (CGP) took effect on July 1, 2010, and an updated permit (Order No. 2012-0006-DWQ took effect on July 17, 2012. The CGP applies to all construction projects that involve land disturbance (i.e., grading) of 1 acre or more. It requires project sponsors to implement construction Best Management Practices (BMPs) at the project site and comply with numeric action levels (NALs) in order to achieve minimum federal water quality standards. The CGP requires control of non-stormwater discharges as well as stormwater discharges. Measures to control non-stormwater discharges such as spills, leakage, and dumping must be addressed through structural as well as non-structural BMPs.

Construction stormwater BMPs are intended to minimize the migration of sediments off–site. They can include covering soil stockpiles, sweeping soil from streets or other paved areas, performing site-disturbing activities in dry periods, and planting vegetation or landscaping quickly after disturbance to stabilize soils. Other typical stormwater BMPs include erosion-reduction controls such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (for example, flagging), vehicle mats in wet areas, and retention/settlement ponds.

The CGP requires dischargers subject to the permit (i.e., project sponsors) to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) that contains provisions to either prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs. The SWPPP must include the information needed to demonstrate compliance with all requirements of the CGP, and must be kept on the construction site and be available for review.

To obtain coverage under the CGP, the applicant must electronically file a number of permit-related compliance documents (Permit Registration Documents [PRDs]), including a Notice of Intent (NOI), a risk assessment, site map, signed certification, the SWPPP, Notice of Termination (NOT), NAL exceedance reports, and other site-specific PRDs that may be required. The PRDs must be prepared by a Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD) and filed by a Legally Responsible Person (LRP) on the RWQCB's Stormwater Multi-Application Report Tracking System (SMARTS). Once filed, these documents become immediately available to the public for review and comment.

These requirements are reinforced by Marin County's own updated stormwater requirements for new and redevelopment projects, promulgated in its Stormwater Pollution Prevention Program (MCSTOPPP), adopted in conformance with its Phase II NPDES permit for municipal separate storm sewer systems (MS4s), addressed below.[55] Although

---

[54] State Water Resources Control Board, Division of Water Quality, National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002, September 2, 2009.

[55] Marin County Public Works Department, Marin County Stormwater Pollution Prevention Program, Action Plan 2010: Stormwater Management Plan, May 2005.

MCSTOPPP requires construction project sponsors to prepare and implement an Erosion and Sediment Control Plan (ESCP), projects subject to the CGP may submit their SWPPP for County review in lieu of an ESCP, which has similar requirements to a SWPPP.

Since publication of the 2005 EIR, there have been further changes to NPDES requirements that affect new development in Marin County. The RWQCB adopted a revised Phase II Small MS4 General Permit that took effect on July 1, 2013 (Phase II Permit).[56] The Phase II Permit requires all grading permit projects and certain projects with building, encroachment, and other permits with significant soil disturbance during construction to implement an approved Erosion and Sediment Control Plan. The plan must follow the MCSTOPPP's Construction Erosion and Sediment Control Plan.

In addition, certain projects that add or replace impervious surfaces must comply with the 2013 Phase II Permit's post-construction stormwater management requirements. In Marin County, all projects subject to the 2013 Phase II Permit's Section E.12 requirements must follow the Bay Area Stormwater Management Agencies Association (BASMAA) Post Construction Manual.[57] Projects, other than single-family home projects, that add or replace 5,000 square feet or more of impervious surface must follow the BASMAA Post Construction Manual and must implement an approved Stormwater Control Plan for a Regulated Project (using the template in Appendix D of the manual). These more stringent stormwater quality requirements are now applied to such projects by both the County of Marin and the majority of its member municipalities.

Projects subject to these post-construction stormwater management requirements must divert all stormwater runoff from impervious surfaces to bioretention or other facilities designed to provide on-site water quality treatment. The facilities must be sized to accommodate runoff from the tributary impervious area, which is divided into Drainage Management Areas (DMAs), with separate treatment facilities for each DMA. The surface area of each bioretention facility must be at least 4 percent of the area of the DMA.

The required SCP must identify potential pollutant sources that will be created or expanded by the proposed development, and describe structural and operational source controls that will be incorporated into the project. The primary objectives of the SCP are to:

- Minimize impervious surfaces
- Retain or detain stormwater
- Slow runoff discharge rates
- Reduce pollutants in site runoff

---

[56] State Water Resources Control Board, Division of Water Quality, Water Quality Order No. 2013-0001-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000004, Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) (General Permit), February 5, 2013.

[57] Available at www.basmaa.org (currently under Board and Committees, Phase II, Projects and Programs).

The Plan must incorporate Low-Impact Development (LID) design features to filter and sequester pollutants in site soils while maintaining or mimicking the site's pre-development hydrology to the extent feasible. Permittees under the Phase II NPDES Permit must also prepare and implement on an ongoing basis an Operation and Maintenance Plan for the site's stormwater management facilities. Projects complying with the *BASMAA Post-Construction Manual* are generally considered to have mitigated a project's potential adverse impacts on stormwater quality.

Proposed Project Consistency with the 2005 EIR

Although regulatory requirements pertaining to stormwater have increased since certification of the 2005 EIR, similar but less restrictive regulations were in effect at that time, and previously adopted Mitigation Measure 5.2-7 (preparation and implementation of a Stormwater Pollution Prevention Plan) and requires preparation and implementation of a SWPPP, including the use of BMPs for control of point and non-point source pollutants in stormwater discharge. The proposed Project is consistent with the project evaluated in the Final EIR Second Amendment, and would occupy a very similar development footprint. Previously adopted Mitigation Measure 5.2-7 would continue to apply to the proposed Project and would be subject to the more rigorous regulatory requirements for stormwater controls discussed above. Previously adopted Mitigation Measures 5.2-8 (acquisition of a Streambed Alteration Agreement from the California Department of Fish and Wildlife) and 5.2-10 (design on-site stormwater detention basins for water quality treatment, implement regular street and parking lot sweeping, incorporate grass-lined swales on site for stormwater treatment, revegetate disturbed areas prior to rainy season, and implement irrigation scheduling and chemical management plan) would also continue to apply to the proposed Project. With implementation of Mitigation Measures 5.2-7, 5.2-8, and 5.2-10; coverage under the CGP; and compliance with the Phase II NPDES permit and MCSTOPPP requirements, the proposed Project would not result in a new or substantially more severe impact on water quality, including violations of water quality standards, than was disclosed in the 2005 EIR.

10-b) While any impervious surfaces restrict direct percolation to groundwater, groundwater recharge also varies with local conditions, and the effects from interference with groundwater recharge also vary locally. The Final EIR did not identify the project site as a significant source of groundwater recharge. The Final EIR reported that there is shallow groundwater at the site that originates as spring discharge from bedrock and infiltrated rainfall that migrates downslope through the interface of colluvial soils and fractured bedrock. Groundwater seepage is a problem where slopes were cut in the 1960s during development of the Marinwood residential neighborhood, which occurred on the western portion of the project site evaluated in the 2005 EIR.

The Final EIR identified substantial depletion of groundwater supplies or substantial interference with groundwater recharge as thresholds of significance, but did not identify any impacts relating to these thresholds. The Final EIR Second Amendment discussed the applicability of the hydrology and water quality impacts identified in the Final EIR to the

Mitigated Alternative, but did not identify any new impacts related to groundwater recharge.

The Project site is located within the service area of the Marin Municipal Water District (MMWD), which reports that there is very limited potential for municipal groundwater use within the boundaries of the District's service area. Between 2011 and 2015, the MMWD did not pump any groundwater for municipal use.[58] The MMWD does not currently use groundwater as a municipal water supply, and has no plans to do so in the future. Although some rural residents in Marin County obtain their domestic water from wells, the vast majority of the water supply in Marin County, including the Project site, is from surface water supplies.[59] Therefore, implementation of the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the production rate of existing wells in the area would be adversely affected. Implementation of the proposed Project would not result in a new or substantially more severe impact on groundwater recharge than was previously analyzed in the 2005 EIR.

10-c) Erosion and downstream sedimentation were also addressed in Checklist Item 7-b. As discussed in Item 10-a, above, construction and grading activities for new development can result in erosion and downstream sedimentation that could adversely affect water quality in Miller Creek and San Francisco Bay. Soil exposed by grading and earthmoving activities is susceptible to entrainment in stormwater runoff, and is a substantial component of nonpoint source pollution. The Final EIR identified Impacts 5.2-7 (Site Erosion and Downstream Sedimentation and Flooding) and 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding)as potentially significant impacts on water quality due to erosion or siltation, and the Final EIR Second Amendment determined that they would still apply to the Mitigation Alternative. These impacts are discussed in more detail in Item 10-a. They would continue to apply to the current Project, and implementation of previously adopted Mitigation Measures 5.2-7 (preparation and implementation of a Stormwater Pollution Prevention Plan) and 5.2-8 (acquisition of a Streambed Alteration Agreement from the California Department of Fish and Wildlife) would continue be required. Implementation of the proposed Project would not result in new or substantially more severe erosion and sedimentation impacts than were disclosed in the 2005 EIR.

10-d) The Final EIR identified Impact 5.2-1 (Stormwater Drainage Patterns), Impact 5.2-2 (Site Peak Flow Rates), Impact 5.2-3 (Downstream Hydraulic Structures and Flooding), Impact 5.2-4 (Downstream Hydraulic Structures and Flooding), Impact 5.2-5 (Offsite/Downstream Flooding on Miller Creek), Impact 5.2-6 (Offsite/Downstream Flooding in Marinwood Subdivision), Impact 5.2-7 (Site Erosion and Downstream Sedimentation and Flooding), and Impact 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding) as impacts related

---

[58] Marin Municipal Water District, *Urban Water Management Plan 2015 Update*, Section 6.2, Groundwater, June 2016.

[59] Marin County Public Works Department, Marin County Watershed Program, Our Water, Accessed December 15, 2017 at: http://www.marinwatersheds.org/our_water.html.

to changes in existing drainage patterns and potential flooding effects. All of these impacts, except Impacts 5.2-1 and 5.2-5, were identified as significant impacts that would be reduced to less than significant through implementation of the required mitigation measures (see below). The Final EIR Second Amendment found that all of these impacts would continue to apply to the Mitigated Alternative, though in some cases the magnitude of impact would be reduced due to a reduction in the amount of impervious surfaces in comparison with the project evaluated in the Final EIR.

Final EIR Impacts 5.2-1, 5.2-3, 5.2-4, and 5.2-6 all addressed drainage and flooding impacts in sub-watersheds that are located on the western portion of the project site evaluated in the Final EIR. These sub-watersheds are not part of the current Project site, and these impacts would not apply to the current Project.

Impact 5.2-2 (Site Peak Flow Rates) determined that construction of new impervious surfaces in sub-watersheds 1, 2, 3, and 6 and installation of a storm drain system would increase peak stormwater discharge rates that would exceed the capacity of downstream hydraulic structures during the 100-year rainstorm. While sub-watersheds 1, 2, and 3 are outside of the current Project site and would be unaffected by the Project, the Project site is located almost entirely within Sub-Watershed 6. The Final EIR noted that the Southern Pacific Railroad (SPRR) bridge over Miller Creek, downstream of the Highway 101 crossing, lacks sufficient capacity to convey the 100-year flood discharge. Impact 5.2-2 also identified constraints in other downstream hydraulic structures, but these facilities would be unaffected by the proposed Project.

Impact 5.2-2 found that the 100-year peak discharge from the 30.4-acre Sub-Watershed 6 would increase from 25.5 cubic feet per second (cfs) to 43.2 cfs following development of the project, representing a 69.4 percent increase. The Final EIR noted that the analytical method used in the EIR, which relied upon coefficient "C" values for estimating existing runoff conditions, resulted in a peak discharge estimate that was 61 percent higher for Sub-Watershed 6 than the estimate prepared by the applicant's engineer, who utilized a more physically-based method for estimating time of concentration for runoff. The Final EIR analysis could therefore be considered a conservative assessment. The Final EIR concluded that implementation of Mitigation Measure 5.2-2 (construct stormwater detention/treatment basin, minimizing topographic manipulation, and including structural dewatering measures and implementation of a monitoring and maintenance plan) would reduce the impact to less than significant.

The Final EIR did not provide a calculation of the new impervious surfaces that would be created by the project. However, the development footprint of the current proposed Project is roughly the same as that occupied by the larger office Building A evaluated in the Final EIR. It would have smaller area of total impervious surfaces because the area originally proposed for office Building B would remain undeveloped. Therefore, implementation of the proposed Project would still cause Impact 5.2-2 to occur, but the magnitude of potential impact would be reduced. Although implementation of previously adopted Mitigation

Measure 5.2-2 would be required to reduce the impact to a less-than-significant level, based on conversation with the Marin County Department of Public Works, one of the provisions is no longer require of the proposed Project, and has been removed (see Revised 2005 EIR Mitigation Measures, below).[60]

Final EIR Impact 5.2-5 found that while project-induced increases in peak flow rates from sub-watersheds 3 and 6 would marginally increase the 100-year storm peak discharge, the increase would not produce a detectable rise in local flood elevations or an increase in the special extent of the 100-year floodplain. The impact was determined to be less than significant, and no mitigation was required.

Final EIR Impacts 5.2-7 and 5.2-8 were addressed above in Item 10-a. As noted therein, these impacts would continue to apply to the proposed Project and implementation of the associated mitigation measures would still be required.

There are no Project changes or changes in conditions under which the Project would be implemented with the potential to cause any new or substantially more severe impacts related to flooding than were previously disclosed in the 2005 EIR.

10-e) Potential impacts from storm runoff exceeding capacity of downstream stormwater drainage systems are discussed above in Checklist Item 10-d. Potential impacts on water quality are discussed above in Checklist Item 10-a.

10-f) Potential impacts on water quality are discussed above in Checklist Item 10-a.

10-g) Exhibit 5.2-2, Flood Insurance Rate Map, of the Final EIR showed a 100-year floodplain flanking Miller Creek in the vicinity of the project. Exhibit 5.2-2 was based on a 1982 Flood Insurance Rate Map (FIRM) published by the Federal Emergency Management Agency (FEMA). East of Highway 101 the mapped floodplain expands north nearly to St. Vincent Drive and south nearly to North Redwood Drive. The Final EIR stated that west of the freeway the flood boundary extends outside the main creek channel only in the vicinity of Paseo Grande and Seville Drive, in the adjacent Casa Marinwood neighborhood. In this low-lying area, backwater flooding could occur because the Miller Creek floodplain was constrained by the reduced channel capacity east of the Highway 101 crossing. The Final EIR reported that this stretch of the creek has a low gradient that, in combination with sediment deposition, creekside levees, and dense in-channel vegetation, produces heightened upstream flood water elevations during severe rainstorms. The Final EIR stated that, according to hydraulic information obtained from Caltrans engineers, the capacity of the Highway 101 bridge over Miller Creek was sufficient to pass the 100-year flood with adequate freeboard. However, as previously noted, the Final EIR determined that the Southern Pacific Railroad (SPRR) bridge over Miller Creek, downstream of the Highway 101 crossing, lacked sufficient capacity to convey the 100-year flood discharge.

[60] Cara Zichelli, Marin County Department of Public Works, personal communication, March 16, 2018.

The Final EIR did not identify an impact associated with placing housing within a 100-year flood hazard area as mapped on a federal FIRM or other flood hazard delineation map. None of the housing proposed as part of the project evaluated in the Final EIR was near the 100-year flood zone. Additional discussion on flooding effects identified in the Final EIR is provided in Checklist Item 9-d, above.

The Final EIR Second Amendment found that the flooding-related impacts discussed in Item 10-d would continue to apply to the Mitigated Alternative, though in some cases the magnitude of impact would be reduced due to a reduction in the amount of impervious surfaces in comparison with the project evaluated in the Final EIR. The Final EIR Second Amendment did not identify an impact associated with placing housing within a 100-year flood zone.

Regulatory Changes Since 2005 EIR Certification

FEMA has updated the FIRMs covering the Project area since the 2005 EIR was certified. The map showing the Miller Creek floodplain in the Project vicinity was updated in March 2016.[61] The area just north of Miller Creek, as well as a portion of the area east of Highway 101, was updated in May 2009.[62] The updated maps show the 100-year floodplain west of Highway 101 to be virtually the same as that depicted in Exhibit 5.2-2 of the Final EIR, but show a substantially reduced floodplain east of the freeway. Although it still extends north nearly to St. Vincent Drive, the encroachment is located further east of the freeway, while the encroachment to the south of the creek has been completely eliminated. This significant reduction in the mapped floodplain resulted from a hydraulic analysis of the lower reach of Miller Creek downstream of Highway 101, commissioned by the City of San Rafael in 1992. This analysis included an updated 100-year flood analysis for Miller Creek. According to the Final EIR, the FEMA flood hazard zone through this reach was reduced as the result of the updated flood modeling.

Proposed Project Consistency with the 2005 EIR

The proposed Project is consistent with the evaluation in the Final EIR Second Amendment. It would not place housing within the 100-year flood zone that flanks Miller Creek. Implementation of the Project would not result in any new or substantially more severe significant flood hazard impacts.

10-h) Potential flooding impacts are addressed in Checklist Items 10-d and 10-g, above. Although Final EIR Impact 5.2-2 did not explicitly discuss the bridge crossing of Miller Creek, it was part of the project evaluated in the EIR, and was therefore included in the analysis of

---

[61] Federal Emergency Management Agency, National Flood Insurance Program, *Flood Insurance Rate Map, Marin County, California and Incorporated Areas*, Map Number 06041C0293E, Panel Numbers 060173 (Marin County) and 065058 (City of San Rafael), March 16, 2016.

[62] Federal Emergency Management Agency, National Flood Insurance Program, *Flood Insurance Rate Map, Marin County, California and Incorporated Areas*, Map Number 06041C0291D, Panel Numbers 060173 (Marin County) and 060178 (City of San Rafael), May 4, 2009.

potential flooding impacts on Miller Creek, which were also discussed in Impact 5.2-3. Impact 5.2-2 would continue to apply to the proposed Project, which would also encroach into the 100-year floodplain with the proposed bridge construction, and implementation of previously adopted Mitigation Measure 5.2-2 would still be required, with a revision, as noted in Checklist Item 10-d, above.

10-i) Other than the hydrology and water quality standards of significance discussed on pages 5.2-10 through 5.2-11, the Final EIR did not address potential impacts from dam failure inundation. The Final EIR Second Amendment was also silent on this subject. Map 2-12 of the *Marin Countywide Plan* illustrates the dam failure inundation zones associated with hypothetical failure of dams at one of the County's major reservoirs. The Project site is not located anywhere near any of the inundation zones. The proposed Project would have no impact related to dam failure inundation.

10-j) Other than the hydrology and water quality standards of significance discussed on pages 5.2-10 through 5.2-11, the Final EIR did not address potential impacts from Inundation by seiche or tsunami. The Final EIR Second Amendment was also silent on this subject. Mudslides were addressed in the Final EIR by Impact 5.1-1 (Landsliding), which was previously discussed above in Checklist Item 7-a

A seiche is a free or standing wave oscillation(s) of the surface of water in an enclosed or semi-enclosed basin that may be initiated by an earthquake. There is no enclosed surface water body near the Project site; San Francisco Bay is not sufficiently closed to produce significant seiche effects along Marin County's Bay shoreline. There is therefore no potential for inundation of the site due to seiche.

Tsunamis (seismic sea waves) are long-period waves that are typically caused by underwater disturbances (landslides), volcanic eruptions, or seismic events that vertically displace the water in a large body of water. Areas that are highly susceptible to tsunami inundation tend to be located in low-lying coastal areas such as tidal flats, marshlands, and former bay margins that have been artificially filled but are still at or near sea level. In the San Francisco Bay Area, any potential tsunami would originate in the Pacific Ocean, and to reach bayside Marin County areas, would need to pass through the relatively narrow Golden Gate and into San Francisco Bay, where it would lose much of its energy. Given the Project site's distance from the Golden Gate—a distance of nearly 17 miles, with intervening land masses—and the elevation of the site, the potential for inundation of the site by tsunami is negligible. This is confirmed by the tsunami inundation map for the San Francisco Bay Area prepared by California Emergency Management Agency, which indicates that the Project site is well outside the area of potential inundation from tsunamis.[63] A more recent interactive map

[63] California Emergency Management Agency, California Geological Survey, and University of Southern California, "Tsunami Inundation Map for Emergency Planning, State of California, County of Marin, Novato Quadrangle, Petaluma Point Quadrangle" [map], July 1, 2009.

produced by the Association of Bay Area Governments also shows the Project site well outside of potential tsunami inundation areas along the County's Bay frontage.[64]

There is no potential for inundation of the Project site by tsunami or seiche. The proposed Project would not cause a new or substantially more severe impact from mudslide than was previously analyzed in the 2005 EIR.

2005 EIR Mitigation Measures

The 2005 EIR identified seven mitigation measures to reduce identified hydrology and water quality impacts, which were adopted and made conditions of project approval. Previously adopted Mitigation Measures 5.2-7, 5.2-8, 5.2-10, and 5.2-11 would continue to apply to the proposed Project. Previously adopted Mitigation Measure 5.2-2 would also apply, with one provision deleted as no longer applicable (see Revised 2005 EIR Mitigation Measures, below).

Mitigation Measure 5.2-7 (Condition of Approval No. 25): To reduce project impacts of on-site erosion and downstream sedimentation it would be necessary to:

- Prepare and implement a comprehensive Stormwater Pollution Prevention Plan (SWPPP), which is submitted as part of the NPDES General Construction Activity Stormwater Permit (General Permit) filing with the State Water Resources Control Board. The NPDES General Permit is required for all developments which [*sic*] would disturb more than five acres of land. The SWPPP describes on-site measures for erosion control and stormwater treatment to be implemented during and following project construction, as well as a schedule for monitoring of performance. These measures are referred to as Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater. BMPs incorporated in the project SWPPP would likely include in-situ protection, seeding and mulching of bare ground, planting of trees and shrubbery in both disturbed upland and riparian areas, and installation of other forms of biotechnical slope stabilization, such as appropriately staked straw bale perimeters, silt fences, or staked plant wattles on the slope contour. No grading should occur within the Miller Creek Stream Conservation Area during the winter season, thus restricting grading activities at the proposed Miller Creek bridge crossing to the period between May I and October 15. Grading in site areas outside of the SCA can occur during the winter season, as long as erosion control measures approved as a part of the Stormwater Pollution Plan (SWPPP) are installed and properly maintained during this period.

Mitigation Measure 5.2-8 (Conditions of Approval Nos. 25 and 26): To reduce project impacts of on-site erosion and downstream sedimentation due to construction of the Marinwood Avenue Bridge on Miller Creek, it would be necessary to:

- Implement Mitigation 5.2-7.

---

[64] Association of Bay Area Governments, Resilience Program, Tsunami Inundation Area for Emergency Planning, Accessed December 18, 2017 at: http://gis.abag.ca.gov/website/Hazards/?hlyr=tsunami.

- Acquire a 1603 Stream Alteration Agreement from the California Department of Fish and Game (CDFG). In addition to measures outlined in the project SWPPP for graded or exposed soil surfaces, the applicant's construction contractor(s) and field engineer should implement temporary measures, where required, to minimize channel sedimentation during bridge construction. Due to the good quality stream habitat and culverting impacts to aquatic life, a bypass pipe through the work area is not recommended. Some form of cofferdam segregating the work areas from the active channel are-would be preferable. All such measures would be described in the Stream Alteration Agreement submittal and would be subject to approval by CDFG.
- Submit an application or letter of notification, as appropriate, to the U.S. Army Corps of Engineers for an Army Fill Permit, in accordance with provisions of the Nationwide Permit Program.
- Acquire a Waiver of Water Quality Certification from the RWQCB.

Mitigation Measure 5.2-10 (Conditions of Approval Nos. 23, 26, and 27): The following measures would be required to minimize impacts on-site and downstream water quality to less-than-significant levels:

- Implement Mitigation Measure 5.2-2 (Peak Flows).
- The stormwater detention basins recommended for construction as part of the program for peak flow mitigation should be designed to maximize their water quality treatment function. Proper configuration, sizing and inlet I outlet characteristics would maximize deposition of particulates in incoming stormwater and would favor the growth of emergent vegetation to facilitate filtering opportunities. Specific design characteristics for wet ponds are listed in the California Storm Water Best Management Practices Handbook for Construction Activity.
- Implement Mitigation Measure 5.2-7 (Site Erosion and Downstream Sedimentation and Flooding).
- Due to the close proximity to the sensitive wetland and aquatic habitats in the receiving waters of Miller Creek and lower Gallinas Creek, the following BMPs are considered a minimum for Oakview stormwater treatment to comply with the requirements of the NPDES General Permit and provisions of Title 24 of the Marin County Code (24.04.625), citing erosion control requirements associated with site grading.
- Institute a regular schedule of street and parking lot sweeping. The frequency of cleaning should be higher (e.g. twice monthly) during the winter rainy season, yet maintained year-round. Regular cleaning of paved surfaces reduce the "first flush" phenomenon wherein the highest concentration of contaminants are flushed off the surfaces during the early portion of a runoff event.
- Incorporate grass-lined swales to convey stormwater from paved surfaces to creek channels or wetlands. Grass-lined swales filter particulates from stormwater and, as a result, reduce the entry of heavy metals and contaminated sediments to drainageways. The current development plan includes one grass-lined (i.e., vegetated) swale each toward

the lower end of Sub-watersheds 2 and 3, although the one proposed for Sub-watershed 2 would not provide significant water quality benefits, Two additional swale locations could be integrated into the project design for Sub-watershed 6 stormwater drainage. The first swale would extend downslope from the eastern edge of the Lot 30 parking lot to the top of the existing cut-slope, at the freeway interface. The second swale would extend from the northernmost storm drain inlet along Roadway C (Marinwood Avenue extension), parallel to Highway 101, to the southern bank of Miller Creek. To forestall excessive rilling within such swales, it may be necessary to install biodegradable fabric along the swale flowline. Initially, the swale may need to be irrigated along with the landscaping.

- Revegetate all disturbed areas prior to the onset of each winter rainy season during and for 2-3 years following completion of construction. Use of an erosion control grass and forb mixture, favoring native species, would be best suited to this task. In addition, some type of surface erosion protection (e.g. jute netting, erosion control blankets, punched straw) should be installed to reduce the erosive energy of incoming raindrops for the first couple of winter seasons.
- Prepare and implement an irrigation scheduling and chemical management plan governing the application of irrigation water and chemical amendments to landscaped areas adjacent to buildings and within or adjacent to parking lot facilities. Components of such a plan would likely include an irrigation schedule linked to soil moisture levels or related variables such as temperature, humidity and wind speed. Specific chemical inputs proposed for application to vegetation should be among those tested and cleared for use by the USEPA. Frequency and scheduling of these chemical inputs should also be indicated, based on site-specific characteristics (for example soil and vegetative cover and rates of uptake) and the acknowledged sensitivity of downstream receiving waters.
- Implement Mitigation Measure 5.2-8 (Site Erosion and Downstream Sedimentation and Flooding).

Mitigation Measure 5.2-11 (Conditions of Approval Nos. 23, 25, 26, and 27): The following measures would be required to reduce cumulative water quality impacts:

- Implement Mitigation Measure 5.2-10.

Revised 2005 EIR Mitigation Measures

One mitigation measure adopted with the EIR has been revised: revised Mitigation Measure 5.2-2 is set forth below, with deleted text shown in ~~strikethrough~~. In order to retain coherence, multi-part mitigation measures with new or revised text as well as unchanged text are presented together in this section rather than splitting them up with unchanged text above and revised text below.

Mitigation Measure 5.2-2 (Condition of Approval No. 23): The following mitigation measure would be required to reduce peak flow impacts:

- Construct a stormwater detention / treatment basin. Basin location shall be selected to minimize excessive topographic manipulation, even if one or more designated residential lots must be eliminated to accommodate its construction. Since stormwater quality impacts can be mitigated, in part, through the integration of water quality enhancements to normal detention basin design, the detention basin should be designed to serve a two-fold purpose: 1) fully attenuate 100-year peak flows from Sub-watersheds 2 and 3 to pre-project levels and, thus, reduce pressure on the downstream storm drain system- the Gallinas Creek tributary (i.e. Highway 101 box culvert); and (2) filter and cleanse stormwater runoff by use of a vegetated inlet swale and detention area (forebay). Other design considerations shall include:
- Structural measures for normal pond dewatering and end-of-season (e.g. April) dewatering (fully) for mosquito control.
- ~~An emergency overflow spillway with appropriate energy dissipater at the outlet. The project applicant shall prepare a monitoring and maintenance plan for the detention basin to ensure proper long-term basin functioning. The monitoring and maintenance plan would include provisions for sediment removal and basin repair, as well as associated conditions governing the use of heavy mechanical equipment (e.g. backhoes, excavators) and environmental safeguards and procedures. This information shall be incorporated into the project's Stormwater Pollution Prevention Plan (SWPPP) submitted to the County Department of Public Works.~~

  ~~Prior to release of the project performance bond, maintenance of the detention basin by a funding entity shall be established by the project applicant. Such an entity could chose to maintain the basin and other erosion and sediment control measures itself or could hire bonded independent contractors. (Also, see Geology Mitigation Measure 5.1-13.)~~

Conclusion

With application of Mitigation Measures 5.2-2, 5.2-7, 5.2-8, 5.2-10, and 5.2-11, which have been adopted as Conditions of Approval Nos. 23, 25, 26, and 27, respectively, implementation of the proposed Project would not result in any new or substantially more severe hydrology and water quality impacts than those previously evaluated in the 2005 EIR.

11. Land Use and Planning

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
11. Land Use and Planning. Would the Project:					
a. Physically divide an established community?	n/a	No	No	No	n/a
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Final EIR, pgs. 3.0-38 to 3.0-41 and 4.0-1 to 4.0-49	No	No	Yes	n/a
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	Draft 2005 EIR, pg. 196	No	No	No	n/a

Discussion

11-a) The 2005 EIR did not identify any impacts related to physically dividing an established community. County policies and programs intended to promote compatibility between new and existing development are promulgated in the *Countywide Plan*, which is addressed below in Checklist Item 11-b. The proposed Project does not have any characteristics with the potential to physically divide an established community; there would be no impact.

11-b) The Final EIR discussed the project's conformance with the *Marin Countywide Plan*, the Marin County Zoning Ordinance, the *San Rafael General Plan 2000*, and Marin Local Agency Formation Commission (LAFCO) policies, identifying inconsistencies or potential inconsistencies with policies protecting biological resources, water quality, traffic, visual quality, development intensity, noise, and energy conservation. Altogether, the analysis concluded that the project then proposed was inconsistent with 22 *Marin Countywide Plan* policies, and was potentially consistent with an additional five policies. With implementation of the mitigation measures required in the Final EIR, all of the policy conflicts would be reduced to a less-than-significant impact.

The Final EIR also identified inconsistency with three zoning requirements, without specifying the applicable regulations, but providing brief summary statements in

Exhibit 4.2-1. The zoning requirements with which the project was found inconsistent pertained to erosion control; minimization of tree, rare plant, and wildlife habitat removal; and landscaping. Although the office component of the project was not consistent with the City of San Rafael's Hillside Residential General Plan land use designation of the project site, no inconsistencies with the City's General Plan policies were identified. No conflicts with Marin LAFCO policies were identified.

Since certification of the 2005 EIR, the County has adopted a new Countywide Plan, which updated and replaced the prior plan adopted in 1994.[65] There have also been many changes to the Zoning Ordinance in the ensuing years. Consequently, this section presents a new land use and planning analysis, evaluating the current Project's consistency with the County plans and regulations adopted for the purpose of avoiding or mitigating an environmental effect that are now in effect in 2018.

Marin Countywide Plan Consistency Analysis

The Project site has a General Plan land use designation of Planned Residential (PR). This category was established for single-family residential development in areas where public services are limited and on properties where physical hazards and/or natural resources may restrict development. It allows one residential unit per 1 to 10 acres, and has an allowable floor area ratio (FAR) of .01 to .09. The Project site is in a Planned Zoning District, in which the allowable density is determined by the Board of Supervisors as part of the entitlement process.

Table 11-1 identifies *Marin Countywide Plan* policies applicable to the proposed Project and, for each policy, provides a brief determination as to whether or not the Project would be consistent with the policy. This determination is based on Staff's preliminary assessment of Countywide Plan policy consistency, but the final determination of policy consistency will be determined by the Board of Supervisors.

[65] Marin County Community Development Agency, *Marin Countywide Plan*, adopted November 6, 2007.

Table 11-1. Countywide Plan Policies Applicable to the Project

Countywide Plan Policy	Project Consistency
The Natural Systems and Agricultural Element	
Biological Resources	
BIO-1.1 – Protect Wetlands, Habitat for Special-Status Species, Sensitive Natural Communities, and Important Wildlife Nursery Areas and Movement Corridors. Protect sensitive biological resources, wetlands, migratory species of the Pacific flyway, and wildlife movement corridors through careful environmental review of proposed development applications, including consideration of cumulative impacts, participation in comprehensive habitat management programs with other local and resource agencies, and continued acquisition and management of open space lands that provide for permanent protection of important natural habitats.	**Consistent.** A detailed updated analysis of the Project's potential impacts to biological resources is summarized in Section 4 of this Environmental Checklist, and mitigation requirements have been updated to provide additional protection of trees, wetlands, and other important biological resources.
BIO-1.2 – Acquire Habitat. Continue to acquire areas containing sensitive resources for use as permanent open space, and encourage and support public and private partnerships formed to acquire and manage important natural habitat areas, such as baylands, wetlands, coastal shorelines, wildlife corridors, and other lands linking permanently protected open space lands.	**Consistent.** The Project site property owner deeded an open space parcel of 69.93 acres of the original 106 acres of property to the Marinwood Community Services District (MCSD) in June 2006 for the permanent preservation of open space. In addition, the developer of the Project has agreed to building hiking trails across the donated open space land at the developer's expense.
BIO-1.3 – Protect Woodlands, Forests, and Tree Resources. Protect large native trees, trees with historical importance; oak woodlands; healthy and safe eucalyptus groves that support colonies of monarch butterflies, colonial nesting birds, or known raptor sites; and forest habitats. Prevent the untimely removal of trees through implementation of standards in the Development Code and the Native Tree Preservation and Protection Ordinance. Encourage other local agencies to adopt tree preservation ordinances to protect native trees and woodlands, regardless of whether they are located in urban or undeveloped areas. See also Policy SV-1.7.	**Consistent.** In addition to the dedication of 69.93 acres to the MCSD for permanent protection of open space (see previous policy), the Project applicant will be required to comply with Marin County Development Code Chapter 22.27. The Project has been designed to minimize the removal of healthy native trees.
BIO-1.4 – Support Vegetation and Wildlife Disease Management Programs. Support agency programs and proven methods to limit the impacts of Sudden Oak Death syndrome and any other diseases harmful to native vegetation and wildlife in Marin County, while addressing any potential adverse effects on sensitive resources.	**Consistent.** While this policy requires implementation by the County, there are no characteristics of the proposed Project that would conflict with or impair the County's implementation of this policy.
BIO-1.5 – Promote Use of Native Plant Species.	**Consistent.** The majority of tree and plant

Countywide Plan Policy	Project Consistency
Encourage use of a variety of native or compatible non-native, non-invasive plant species indigenous to the site vicinity as part of project landscaping to improve wildlife habitat values.	species proposed on the Project landscape plans are native to Marin County, the San Francisco Bay Area, or California.
BIO-1.6 – Control Spread of Invasive Exotic Plants. Prohibit use of invasive species in required landscaping as part of the discretionary review of proposed development. Work with landowners, landscapers, the Marin County Open Space District, nurseries, and the multi-agency Weed Management Area to remove and prevent the spread of highly invasive and noxious weeds. Invasive plants are those plants listed in the State's Noxious Weed List, the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California," and other priority species identified by the agricultural commissioner and California Department of Agriculture. Species of particular concern include the following: barbed goatgrass (*Aegilops triuncialis*), giant reed (*Arundo donax*), Italian thistle (*Carduus pycnocephalus*), distaff thistle (*Carthamus lanatus*), purple starthistle (*Centaurea calcitrapa*), yellow starthistle (*Centaurea solstitialis*), pampas grass (*Cortaderia selloana*), Scotch broom (*Cytisus scoparius*), Cape ivy (*Delairea odorata*), oblong spurge (*Euphorbia oblongata*), fennel (*Foeniculum vulgare*), French broom (*Genista monspessulana*), salt-water cord grass (*Spartina alternifolia*), Spanish broom (*Spartium junceum*), medusahead (*Taeniatherum caput-medusae*), gorse (*Ulex europaeus*), and periwinkle (*Vinca major*), among others.	**Consistent.** No invasive species are included in the species proposed on the Project landscape plans.
BIO-1.7 – Remove Invasive Exotic Plants. Require the removal of invasive exotic species, to the extent feasible, when considering applicable measures in discretionary permit approvals for development projects unrelated to agriculture, and include monitoring to prevent re-establishment in managed areas.	**Consistent.** The Landscape and Vegetation Management Plan mandated by Mitigation Measure 5.3-1(a) is required to provide for re-establishment and ongoing maintenance of native vegetation on the site, identify invasive and other unsuitable species that should not be used in landscaping, and control the establishment and spread of introduced invasive species, including French and Scotch broom.
BIO-1.8 – Restrict Use of Herbicides, Insecticides, and Similar Materials. Encourage the use of integrated pest management and organic practices to manage pests with the least possible hazard to the environment. Restrict the use of insecticides, herbicides, or any toxic chemical substance in sensitive habitats, except when an emergency has been declared; the habitat itself is threatened; a substantial risk to public health and safety	**Consistent.** The Landscape and Vegetation Management Plan mandated by Mitigation Measure 5.3-1(a) is required to specify long-tern management provisions to ensure re-establishment of native plants and new landscape improvements. The plan has been prepared and will be reviewed as a part of the Precise Development Plan process, which will

Countywide Plan Policy	Project Consistency
exists, including maintenance for flood control; or such use is authorized pursuant to a permit issued by the agricultural commissioner. Encourage nontoxic strategies for pest control, such as habitat management using physical and biological controls, as an alternative to chemical treatment, and allow use of toxic chemical substances only after other approaches have been tried and determined unsuccessful. Continue to implement the Integrated Pest Management ordinance for county-related operations.	give the County the opportunity to encourage the project to use integrated pest management and organic practices for landscape maintenance.
BIO-1.9 – Control Spread of Non-Native Invasive Animal Species. Work with landowners, the Marin County Open Space District, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the National Invasive Species Council, Point Reyes National Seashore, and other agencies and organizations to control and prevent the spread of non-native, invasive animal species. Species of particular concern include: introduced red fox (*Vulpes vulpes*), Chinese mitten crab (*Eriocheir sinensis*), bullfrog (*Rana catesbeiana*), and wild boar (*Sus scrofa*), among others. Wild turkey (*Meleagris gallopavo*) is also a non-native species of increasing abundance and concern in the county, and it requires careful management to prevent adverse impacts on native habitat.	**Consistent.** The Biological Resources Assessment prepared for the project identified 18 non-special-status wildlife species as documented within a 5-mile radius around the Project site (i.e., within the CNDDB search area), but no invasive species were included in the CNDDB search results. Furthermore, during the August 2015 reconnaissance of the site by wildlife biologists, no invasive animal species were identified on the site. No conflicts with Policy BIO-1.9 were identified during this environmental review. However, the County may wish to impose a condition of approval related to compliance with this policy.
BIO-2.1 – Include Resource Preservation in Environmental Review. Require environmental review pursuant to CEQA of development applications to assess the impact of proposed development on native species and habitat diversity, particularly special-status species, sensitive natural communities, wetlands, and important wildlife nursery areas and movement corridors. Require adequate mitigation measures for ensuring the protection of any sensitive resources and achieving "no net loss" of sensitive habitat acreage, values, and function.	**Consistent.** The biological impact assessment summarized in Section 4 of this Environmental Checklist addresses the resource issues listed in Policy BIO 2.1.
BIO-2.2 – Limit Development Impacts. Restrict or modify proposed development in areas that contain essential habitat for special-status species, sensitive natural communities, wetlands, baylands and coastal habitat, and riparian habitats, as necessary to ensure the continued health and survival of these species and sensitive areas. Development projects should preferably be modified to avoid impacts on sensitive resources, or to adequately mitigate impacts by providing on-site or (as a lowest priority) off-site replacement at a higher ratio.	**Consistent.** The Project has been designed to avoid the more biologically sensitive areas on the site where possible, including the steep slopes, oak woodland, purple needlegrass habitat, and seasonal wetland area. Where impacts cannot be avoided, mitigation has been identified to reduce impacts to a less-than-significant level.
BIO-2.3 – Preserve Ecotones. Condition or modify development permits to ensure that *ecotones*, or natural	**Consistent.** The Project provides for the protection of stream and riparian habitat, the

Countywide Plan Policy	Project Consistency
transitions between habitat types, are preserved and enhanced because of their importance to wildlife. Ecotones of particular concern include those along the margins of riparian corridors, baylands and marshlands, vernal pools, and woodlands and forests where they transition to grasslands and other habitat types.	restoration and replacement of native grassland, and the introduction of native plants along the edges of proposed development.
BIO-2.4 – Protect Wildlife Nursery Areas and Movement Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits, including consideration of cumulative impacts. Features of particular importance to wildlife for movement may include riparian corridors, shorelines of the coast and bay, and ridgelines. Linkages and corridors shall be provided that connect sensitive habitat areas such as woodlands, forests, wetlands, and essential habitat for special-status species, including an assessment of cumulative impacts.	**Consistent.** Miller Creek would continue to provide a source of drinking water for wildlife and the proposed improvements would not restrict access to the creek corridor. Mitigation has been included in the Project that includes avoidance and minimization measures for steelhead and other migratory fish habitat in Miller Creek.
BIO-2.5 – Restrict Disturbance in Sensitive Habitat During Nesting Season. Limit construction and other sources of potential disturbance in sensitive riparian corridors, wetlands, and baylands to protect bird nesting activities. Disturbance should generally be set back from sensitive habitat during the nesting season from March 1 through August 1 to protect bird nesting, rearing, and fledging activities. Preconstruction surveys should be conducted by a qualified professional where development is proposed in sensitive habitat areas during the nesting season, and appropriate restrictions should be defined to protect nests in active use and ensure that any young have fledged before construction proceeds.	**Consistent.** The Project includes mitigation to protect nesting birds during construction.
BIO-2.6 – Identify Opportunities for Safe Wildlife Movement. Ensure that existing stream channels and riparian corridors continue to provide for wildlife movement at roadway crossings, preferably through the use of bridges, or through over-sized culverts, while maintaining or restoring a natural channel bottom. Consider the need for wildlife movement in designing and expanding major roadways and other barriers in the county. Of particular concern is the possible widening of Highway 101 north of Novato to the county line, where maintenance of movement opportunities for terrestrial wildlife between the undeveloped habitat on Mount Burdell and the marshlands along the Petaluma River is critical.	**Consistent.** The Project would include a bridge over Miller Creek and creek flows would be maintained during construction. Regulatory oversight by the U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and the San Francisco Bay Regional Water Quality Control Board (as well as related consultation with the U.S. Fish and Wildlife Service) would ensure that impacts to wildlife corridors are minimized and potential impacts are adequately mitigated.
BIO-2.8 – Coordinate with Trustee Agencies. Consult with trustee agencies (the California Department of Fish and Game, U.S. Fish and Wildlife Service, National Oceanic and	**Consistent.** Mitigation has been identified in this Addendum that requires consultation with the relevant trustee agencies for

Countywide Plan Policy	Project Consistency
Atmospheric Administration Fisheries, U.S. Army Corps of Engineers, Environmental Protection Agency, Regional Water Quality Control Board, and Bay Conservation and Development Commission) during environmental review when special-status species, sensitive natural communities, or wetlands may be adversely affected.	biological resources.
BIO-2.9 – Promote Early Consultation with Other Agencies. Require applicants to consult with all agencies with review authority for projects in areas supporting wetlands and special-status species at the outset of project planning.	**Consistent.** Mitigation has been identified in this Addendum that requires consultation with and permitting by the relevant trustee agencies for wetlands and special-status species prior to the initiation of Project construction.
BIO-3.1 – Protect Wetlands. Require development to avoid wetland areas so that the existing wetlands and upland buffers are preserved and opportunities for enhancement are retained (areas within setbacks may contain significant resource values similar to those within wetlands and also provide a transitional protection zone). Establish a Wetland Conservation Area (WCA) for jurisdictional wetlands to be retained, which includes the protected wetland and associated buffer area. Development shall be set back a minimum distance to protect the wetland and provide an upland buffer. Larger setback standards may apply to wetlands supporting special-status species or associated with riparian systems and baylands under tidal influence, given the importance of protecting the larger ecosystems for these habitat types as called for under Stream Conservation and Baylands Conservation policies defined in Policy BIO-4.1 and BIO-5.1, respectively. Regardless of parcel size, a site assessment is required either where incursion into a WCA is proposed or where full compliance with all WCA criteria would not be met. Employ the following criteria when evaluating development projects that may impact wetland areas (see [Countywide Plan] Figure 2-1): *City-Centered Corridor:* ◆ For parcels more than 2 acres in size, a minimum 100-foot development setback from wetlands is required. ◆ For parcels between 2 and 0.5 acres in size, a minimum 50-foot development setback from wetlands is required. ◆ For parcels less than 0.5 acres in size, a minimum 20-foot development setback from wetlands is required. The developed portion(s) of parcels (less than 0.5 acres in size) located behind an existing authorized flood control levee or dike are not	**Consistent.** The Project would avoid the seasonal wetland on the site.

Countywide Plan Policy	Project Consistency
subject to a development setback. ◆ Regardless of parcel size, an additional buffer may be required based on the results of a site assessment, if such an assessment is determined to be necessary. Site assessments will be required and conducted pursuant to Program BIO-3.c, Require Site Assessment. [Provisions for Coastal, Inland Rural, and Baylands Corridors deleted here, as they do not apply to the proposed Project.]	
BIO-3.2 – Require Thorough Mitigation. Where avoidance of wetlands is not possible, require provision of replacement habitat on-site through restoration and/or habitat creation at a minimum ratio of 2 acres for each acre lost (2:1 replacement ratio) for on-site mitigation and a minimum 3:1 replacement ratio for off-site mitigation. Mitigation wetlands should be of the same type as those lost and provide habitat for the species that use the existing wetland. Mitigation should also be required for incursion within the minimum WCA setback/transition zone.	**Consistent.** The Project would avoid the seasonal wetland on the site.
BIO-4.1 – Restrict Land Use in Stream Conservation Areas. A *Stream Conservation Area* (SCA) is established to protect the active channel, water quality and flood control functions, and associated fish and wildlife habitat values along streams. Development shall be set back to protect the stream and provide an upland buffer, which is important to protect significant resources that may be present and provides a transitional protection zone. Best management practices[66] shall be adhered to in all designated SCAs. Best management practices are also strongly encouraged in ephemeral streams not defined as SCAs. Exceptions to full compliance with all SCA criteria and standards may be allowed only if the following is true: 1. A parcel falls entirely within the SCA; or 2. Development on the parcel entirely outside the SCA either is infeasible or would have greater impacts on water quality, wildlife habitat, other sensitive biological resources, or other environmental constraints than development within the SCA. SCAs are designated along perennial, intermittent, and ephemeral streams as defined in the Countywide Plan	**Consistent.** Mitigation Measures 5.3-4, 5.3-4(c), and 5.3-6 require the bridge crossing of Miller Creek to be designed to minimize disturbance of the creek and protect the wildlife habitat within and adjacent to the creek.

[66] Such as those outlined in *Start at the Source* and *Start at the Source Tools Handbook* (Bay Area Stormwater Managers Agencies Association).

Countywide Plan Policy	Project Consistency
Glossary. Regardless of parcel size, a site assessment is required where incursion into an SCA is proposed or where full compliance with all SCA criteria would not be met. An ephemeral stream is subject to the SCA policies if it: (a) supports riparian vegetation for a length of 100 feet or more, and/or (b) supports special-status species and/or a sensitive natural community type, such as native grasslands, regardless of the extent of riparian vegetation associated with the stream. For those ephemeral streams that do not meet these criteria, a minimum 20-foot development setback should be required. SCAs consist of the watercourse itself between the tops of the banks and a strip of land extending laterally outward from the top of both banks to the widths defined below (see Figure 2-2). The SCA encompasses any jurisdictional wetland or unvegetated other waters within the stream channel, together with the adjacent uplands, and supersedes setback standards defined for WCAs. Human-made flood control channels under tidal influence are subject to the Bayland Conservation policies. The following criteria shall be used to evaluate proposed development projects that may impact riparian areas: *City-Centered Corridor:* ◆ For parcels more than 2 acres in size, provide a minimum 100-foot development setback on each side of the top of bank. ◆ For parcels between 2 and 0.5 acres in size, provide a minimum 50-foot development setback on each side of the top of bank. ◆ For parcels less than 0.5 acres in size, provide a minimum 20-foot development setback. The developed portion(s) of parcels (less than 0.5 acres in size) located behind an existing authorized flood control levee or dike are not subject to a development setback. ◆ Regardless of parcel size, an additional buffer may be required based on the results of a site assessment. A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, *Require Site Assessment*. *Coastal, Inland Rural, and Baylands Corridors:* ◆ For all parcels, provide a development setback on	

Countywide Plan Policy	Project Consistency
each side of the top of bank that is the greater of either (a) 50 feet landward from the outer edge of woody riparian vegetation associated with the stream or (b) 100 feet landward from the top of bank. An additional setback distance may be required based on the results of a site assessment. A site assessment may be required to confirm the avoidance of woody riparian vegetation and to consider site constraints, presence of other sensitive biological resources, options for alternative mitigation, and determination of the precise setback. Site assessments will be required and conducted pursuant to Program BIO-4.g, *Require Site Assessment*. SCAs shall be measured as shown in Figure 2-2. Allowable uses in SCAs in any corridor consist of the following, provided they conform to zoning and all relevant criteria and standards for SCAs: ◆ Existing permitted or legal nonconforming structures or improvements, their repair, and their retrofit within the existing footprint; ◆ Projects to improve fish and wildlife habitat; ◆ Driveway, road and utility crossings, if no other location is feasible; ◆ Water-monitoring installations; ◆ Passive recreation that does not significantly disturb native species; ◆ Necessary water supply and flood control projects that minimize impacts to stream function and to fish and wildlife habitat; ◆ Agricultural uses that do not result in any of the following: a. The removal of woody riparian vegetation; b. The installation of fencing within the SCA that prevents wildlife access to the riparian habitat within the SCA; c. Animal confinement within the SCA; and d. A substantial increase in sedimentation.	
BIO-4.2 – Comply with SCA Regulations. Implement established setback criteria for protection of SCAs through established discretionary permit review processes and/or through adoption of new ordinances. Environmental review shall be required where incursion into an SCA is proposed and a discretionary permit is required. In determining whether allowable uses are compatible	**Consistent.** This Addendum in conjunction with the 2005 EIR provides a thorough environmental review of the project, and includes mitigation measures to protect habitat, water quality, and hydraulic capacity.

Countywide Plan Policy	Project Consistency
with SCA regulations, development applications shall not be permitted if the project does any of the following: ◆ Adversely alters hydraulic capacity; ◆ Causes a net loss in habitat acreage, value, or function; ◆ Degrades water quality.	
BIO-4.4 – Promote Natural Stream Channel Function. Retain and, where possible, restore the hydraulic capacity and natural functions of stream channels in SCAs. Discourage alteration of the bed or banks of the stream, including filling, grading, excavating, and installation of storm drains and culverts. When feasible, replace impervious surfaces with pervious surfaces. Protect and enhance fish habitat, including through retention of large woody debris, except in cases where removal is essential to protect against property damage or prevent safety hazards. In no case shall alterations that create barriers to fish migration be allowed on streams mapped as historically supporting salmonids. Alteration of natural channels within SCAs for flood control should be designed and constructed in a manner that retains and protects the riparian vegetation, allows for sufficient capacity and natural channel migration, and allows for reestablishment of woody trees and shrubs without compromising the flood flow capacity where avoidance of existing riparian vegetation is not possible.	**Consistent.** Mitigation Measures 5.3-4, 5.3-4(c), and 5.3-6 require the bridge crossing of Miller Creek to be designed to minimize disturbance of the creek and maintain its existing hydraulic capacity.
BIO-4.5 – Restore and Stabilize Stream Channels. Pursue stream restoration and appropriate channel redesign where sufficient right-of-way exists that includes the following: a hydraulic design, a channel plan form, a composite channel cross-section that incorporates low flow and bankfull channels, removal and control of invasive exotic plant species, and biotechnical bank stabilization methods to promote quick establishment of riparian trees and other native vegetation.	**Consistent.** Mitigation Measures 5.3-4, 5.3-4(c), and 5.3-6 require the bridge crossing of Miller Creek to be designed to minimize disturbance of the creek and maintain its existing hydraulic capacity.
BIO-4.6 – Control Exotic Vegetation. Remove and replace invasive exotic plants with native plants as part of stream restoration projects and as a condition of site-specific development approval in an SCA, and include monitoring to prevent reestablishment.	**Consistent.** As warranted, the County can require the Landscape and Vegetation Management Plan mandated by Mitigation Measure 5.3-1(a) to include provisions for the removal and replacement of invasive plants.
BIO-4.7 – Protect Riparian Vegetation. Retain riparian vegetation for stabilization of streambanks and floodplains, moderating water temperatures, trapping and filtering sediments and other water pollutants, providing wildlife habitat, and aesthetic reasons.	**Consistent.** Mitigation Measures 5.3-4, 5.3-4(c), and 5.3-6 require the bridge crossing of Miller Creek to be designed to minimize disturbance of the creek and its banks. Mitigation Measure 5.2-7 requires the planting of trees and shrubbery in disturbed

Countywide Plan Policy	Project Consistency
	riparian areas.
BIO-4.8 – Reclaim Damaged Portions of SCAs. Restore damaged portions of SCAs to their natural state wherever possible, and reestablish as quickly as possible any herbaceous and woody vegetation that must be removed within an SCA, replicating the structure and species composition of indigenous native riparian vegetation.	**Consistent.** Mitigation measures are included in the Project to establish replacement trees and vegetation in disturbed areas.
BIO-4.14 – Reduce Road Impacts in SCAs. Locate new roads and roadfill slopes outside SCAs, except at stream crossings, and consolidate new road crossings wherever possible to minimize disturbance in the SCA. Require spoil from road construction to be deposited outside the SCA, and take special care to stabilize soil surfaces.	**Consistent.** Mitigation Measures 5.3-4, 5.3-4(c), and 5.3-6 require the bridge crossing of Miller Creek to be designed to minimize disturbance of the creek and its banks. The majority of the proposed site driveway would be located outside the SCA associated with Miller Creek.
BIO-4.15 – Reduce Wet Weather Impacts. Ensure that development work adjacent to and potentially affecting SCAs is not done during the wet weather or when water is flowing through streams, except for emergency repairs, and that disturbed soils are stabilized and replanted, and areas where woody vegetation has been removed are replanted with suitable species before the beginning of the rainy season.	**Consistent.** Mitigation Measure 5.2-7 requires grading within the Miller Creek SCA to occur during the dry season.
BIO-4.16 – Regulate Channel and Flow Alteration. Allow alteration of stream channels or reduction in flow volumes only after completion of environmental review, commitment to appropriate mitigation measures, and issuance of appropriate permits by jurisdictional agencies based on determination of adequate flows necessary to protect fish habitats, water quality, riparian vegetation, natural dynamics of stream functions, groundwater recharge areas, and downstream users.	**Consistent.** The environmental review summarized in this Addendum and the identification of required mitigation measures demonstrates compliance with this policy.
BIO-4.18 – Promote the Use of Permeable Surfaces When Hardscapes Are Unavoidable in the SCA and WCA. Permeable surfaces rather than impermeable surfaces shall be required wherever feasible in the SCA and WCA.	**Consistent.** It is not practical to provide permeable surfaces for the bridge crossing of the Miller Creek SCA, but the County can condition Project approval on the provision of permeable surfaces for the creekside pedestrian path and site driveway where they would be located within the SCA.
BIO-4.19 – Maintain Channel Stability. Applicants for development projects may be required to prepare a hydraulic and/or geomorphic assessment of on-site and downstream drainageways that are affected by project area runoff. This assessment should be required where evidence that significant current or impending channel instability is present, such as documented channel bed incision, lateral erosion of banks (e.g., sloughing or	**Consistent.** Mitigation requirements have been included in this addendum to reduce encroachment into and erosion of the stream channel in Miller Creek, and to attenuate peak storm flows via a stormwater detention basin that prevent increases in peak stormwater discharges into the creek.

Countywide Plan Policy	Project Consistency
landsliding), tree collapse due to streambank undermining and/or soil loss, or severe in-channel sedimentation, as determined by the County. Characteristics pertinent to channel stability would include hillslope erosion, bank erosion, excessive bed scour or sediment deposition, bed slope adjustments, lateral channel migration or bifurcation, channel capacity, and the condition of riparian vegetation. The hydraulic and/or geomorphic assessment shall include on-site channel or drainageway segments over which the applicant has control or access. In the event that project development would result in or further exacerbate existing channel instabilities, the applicant could either propose his/her own channel stabilization program subject to County approval or defer to the mitigations generated during the required environmental review for the project, which could include maintenance of peak flows at pre- and post-project levels, or less. Proposed stabilization measures shall anticipate project-related changes to the drainageway flow regime. All project improvements should be designed to minimize flood hydrograph peak flow or flood volume increases into drainage courses. To this end, design features such as porous pavement, pavers, maximizing overall permeability, drainage infiltration, disconnected impervious surfaces, swales, biodetention, green roofs, etc., should be integrated into projects as appropriate. For projects subject to discretionary review, the applicant may be required, as appropriate, to submit a pre-and post-project hydrology and hydraulic report detailing the amount of new impervious surface area and accompanying surface runoff from all improvement areas, including driveways — with a goal of zero increase in runoff (no net increase in peak off-site runoff). The applicant may be required to participate in a peak stormwater runoff management program developed pursuant to new Program BIO-4.20.	
BIO-4.20 – Minimize Runoff. In order to decrease stormwater runoff, the feasibility of developing a peak stormwater management program shall be evaluated to provide mitigation opportunities such as removal of impervious surface or increased stormwater detention in the watershed.	**Consistent.** The Project includes bioretention basins intended to capture and treat on site all stormwater runoff from the project buildings and pavements as well as detain peak stormwater discharge from the site.
Water Resources	
WR-1.1 – Protect Watersheds and Aquifer Recharge. Give high priority to the protection of watersheds, aquifer-recharge areas, and natural drainage systems in any	**Consistent.** The Project includes a variety of features and mitigation requirements intended to protect water quality on and off

Countywide Plan Policy	Project Consistency
consideration of land use.	site.
WR-1.3 – **Improve Infiltration.** Enhance water infiltration throughout watersheds to decrease accelerated runoff rates and enhance groundwater recharge. Whenever possible, maintain or increase a site's predevelopment infiltration to reduce downstream erosion and flooding.	**Consistent.** The Project includes bioretention basins intended to detain peak stormwater discharge from the site.
WR-1.4 – **Protect Upland Vegetation.** Limit development and grazing on steep slopes and ridgelines in order to protect downslope areas from erosion and to ensure that runoff is dispersed adequately to allow for effective infiltration.	**Consistent.** The Project would not include any development on steep slopes or ridgelines, and would not entail grazing.
WR-2.1 – **Reduce Toxic Runoff.** Reduce the volume of urban runoff from pollutants — such as pesticides from homes, golf courses, cleaning agents, swimming pool chemicals, and road oil — and of excess sediments and nutrients from agricultural operations.	**Consistent.** The Project includes bioretention basins intended to capture and treat on site all stormwater runoff from the project buildings and pavements, removing urban pollutants prior to discharging the stormwater from the site.
WR-2.3 – Avoid Erosion and Sedimentation. Minimize soil erosion and discharge of sediments into surface runoff, drainage systems, and water bodies. Continue to require grading plans that address avoidance of soil erosion and on-site sediment retention. Require developments to include on-site facilities for the retention of sediments, and, if necessary, require continued monitoring and maintenance of these facilities upon project completion.	**Consistent.** Implementation of the Stormwater Pollution Prevention Plan (SWPPP) required by Mitigation Measure 5.2-7 would ensure that soil erosion and the discharge of sediments are minimized.
WR-3.2 – **Mitigate Water Demand in New Development.** Assess and mitigate the impacts of new development on potable water supplies and water available for wildlife.	**Consistent.** The analysis of the Project's water demand found that the project would have a less-than-significant impact on water supplies.
Environmental Hazards	
EH-2.1 – **Avoid Hazard Areas.** Require development to avoid or minimize potential hazards from earthquakes and unstable ground conditions.	**Consistent.** Mitigation measures are identified in Checklist Section 7 to minimize potential hazards to the Project from earthquakes and unstable ground conditions.
EH-2.2 – **Comply with the Alquist-Priolo Act.** Continue to implement and enforce the Alquist-Priolo Earthquake Fault Zoning Act.	**Consistent.** There are no Alquist-Priolo fault zones on the Project site.
EH-2.3 – **Ensure Seismic Safety of New Structures.** Design and construct all new buildings to be earthquake resistant. The minimum level of design necessary would be in accordance with seismic provisions and criteria contained in the most recent version of the State and County Codes. Construction would require effective oversight and enforcement to ensure adherence to the	**Consistent.** Mitigation measures are identified in Checklist Section 7 to ensure seismic safety in the Project buildings.

Countywide Plan Policy	Project Consistency
earthquake design criteria.	
EH-3.2 – Retain Natural Conditions. Ensure that flow capacity is maintained in stream channels and floodplains, and achieve flood control using biotechnical techniques instead of storm drains, culverts, riprap, and other forms of structural stabilization.	**Consistent.** Mitigation Measures 5.3-4, 5.3-4(c), and 5.3-6 require the bridge crossing of Miller Creek to be designed to minimize disturbance of the creek and its banks, including alteration of the hydrology of the creek.
EH-4.1 – Limit Risks to Structures. Ensure that adequate fire protection is provided in new development and when modifications are made to existing structures.	**Consistent.** The Project will be subject to review and approval by the local fire district, which will ensure compliance with applicable fire codes.
EH-4.2 – Remove Hazardous Vegetation. Abate the buildup of vegetation around existing structures or on vacant properties that could help fuel fires. (See also Natural Systems and Agriculture Element, BIO-1.4, Support Vegetation and Wildlife Disease Management Programs).	**Consistent.** The Landscape and Vegetation Management Plan mandated by Mitigation Measure 5.3-1(a) is required to provide for re-establishment and ongoing maintenance of native vegetation on the site, identify invasive and other unsuitable species that should not be used in landscaping, and control the establishment and spread of introduced invasive species, including French and Scotch broom.
EH-4.3 – Adopt and Implement a Fire Management Plan. Develop a proactive approach to manage wildfire losses by identifying hazard risks and enacting effective mitigation strategies.	**Consistent.** Mitigation Measure 5.8-2 requires development and implementation of a Fire Management Plan that will include both a Vegetation Modification Plan (to ensure provision of a minimum defensible space around Project buildings) and a Vegetation Maintenance Plan (describing the program for on-going annual vegetation maintenance), which will ensure that the risk of wildfire on the site is minimized.
EH-4.4 – Ensure Adequate Emergency Response. Ensure that there is an adequate number of trained and certified emergency medical technicians to address the increase in medical demand.	**Consistent.** Both the Marin County Sheriff's Department and Marinwood Fire Department have stated that they do not have any concerns regarding the impact of the currently proposed Project on their ability to provide police protection and fire protection services, respectively, to the Project.
EH-4.5 – Regulate Land Uses to Protect from Wildland Fires. Use land use regulations, including but not limited to subdivision approvals and denials, as means of protecting people and property from hazards associated with wildland fires.	**Consistent.** County decision makers will have the opportunity to determine whether the wildfire hazard at the site has been adequately minimized.
Atmosphere and Climate	
AIR-1.1 – Coordinate Planning and Evaluation Efforts.	**Consistent.** The air quality analysis

Countywide Plan Policy	Project Consistency
Coordinate air quality planning efforts with local, regional, and State agencies, and evaluate the air quality impacts of proposed plans and development projects.	summarized in this Addendum was performed in accordance with the CEQA guidelines published by the Bay Area Air Quality Management District, the public agency with jurisdiction over air quality in the San Francisco Bay Area.
AIR-1.3 – Require Mitigation of Air Quality Impacts. Require projects that generate potentially significant levels of air pollutants, such as quarry, landfill operations, or large construction projects, to incorporate best available air quality mitigation in the project design.	**Consistent.** Implementation of Mitigation Measure 5.6-3 would minimize the air quality impacts of Project construction. Project operation would not generate significant levels of air pollutants.
AIR-2.1 – Buffer Emission Sources and Sensitive Land Uses. Consider potential air pollution and odor impacts from land uses that may emit pollution and/or odors when locating (a) air pollution sources, and (b) residential and other pollution-sensitive land uses in the vicinity of air pollution sources (which may include freeways, manufacturing, extraction, hazardous materials storage, landfill, food processing, wastewater treatment, and other similar uses).	**Consistent.** The Project does not include any sources of substantial emissions of air pollutants or odors.
AIR-3.1 – Institute Transportation Control Measures. Support a transportation program that reduces vehicle trips, increases ridesharing, and meets or exceeds the Transportation Control Measures recommended by BAAQMD in the most recent Clean Air Plan to reduce pollutants generated by vehicle use.	**Consistent.** The air quality analysis summarized in Section 3 of this Addendum determined that the Project would be consistent with BAAQMD's Clean Air Plan.
AIR-4.2 – Foster the Absorption of Greenhouse Gases. Foster and restore forests and other terrestrial ecosystems that offer significant carbon mitigation potential.	**Consistent.** The Project applicant has set aside the majority of the original project site as permanent open space, protecting the woodlands on the property in perpetuity.
The Built Environment Element	
Community Development	
CD-1.1 – Direct Land Uses to Appropriate Areas. Concentrate urban development in the City-Centered Corridor, where infrastructure and facilities can be made available most efficiently. Protect sensitive lands in the Baylands Corridor. Emphasize agricultural uses in the Inland Rural Corridor, along with preservation of resources, habitat, and existing communities. Focus on open space, recreational, and agricultural land uses, as well as preservation of existing communities, in the Coastal Corridor.	**Consistent.** The proposed Project would be located within the City-Centered Corridor.
CD-1.2 – Direct Urban Services. Discourage extension of urban levels of service to serve new development beyond	**Consistent.** The proposed Project would be located within the City-Centered Corridor.

Countywide Plan Policy	Project Consistency
urban service areas.	
CD-1.3 – Reduce Potential Impacts. Calculate potential residential densities and commercial floor area ratio (FAR) at the low end of the applicable range on sites with sensitive habitat or within the Ridge and Upland Greenbelt, or properties lacking public water or sewer systems except for multi-family parcels identified in certified Housing Elements.	**Provisionally Consistent.** The County Code does not establish a maximum FAR for the RMP (Residential, Multiple Planned) zoning district in which the Project site is located. It will be up to County decision makers to determine whether proposed Project is consistent with this policy.
CD-2.1 – Provide a Mix of Housing. The range of housing types, sizes, and prices should accommodate workers employed in Marin County. This includes rental units affordable to lower-wage earners and housing that meets the needs of families, seniors, disabled persons, and homeless individuals and families.	**Consistent.** The proposed Project would provide six affordable apartments that would be offered first to Project employees.
CD-5.1 – Assign Financial Responsibility for Growth. Require new development to pay its fair share of the cost of public facilities, services, and infrastructure, including but not limited to transportation, incremental water supply, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and police protection, and parks and recreation. Allow for individual affordable housing projects to be exempted from the full cost of impact fees, subject to meeting specified criteria.	**Consistent.** The proposed Project would be required to pay all applicable County development fees.
CD-5.2 – Correlate Development and Infrastructure. For health, safety, and general welfare, new development should occur only when adequate infrastructure is available, consistent with the following findings: a. Project-related traffic will not cause the level of service established in the circulation element to be exceeded (see TR-1.e). b. Any circulation improvements or programs needed to maintain the established level of service standard have been programmed and funding has been committed. c. Environmental review of needed circulation improvement projects or programs has been completed. d. The time frame for completion of the needed circulation improvements or programs will not cause the established level of service standard to be exceeded. e. Wastewater, water (including for adequate fire flows), and other infrastructure improvements will be available to serve new development by the time the development is constructed.	**Consistent.** The analysis presented in this Environmental Checklist demonstrates that adequate traffic and other infrastructure exists to accommodate the proposed Project. Mitigation measures have been identified to reduce potentially significant impacts on infrastructure to a less-than-significant level.

Countywide Plan Policy	Project Consistency
Community Design	
DES-4.1 – **Preserve Visual Quality.** Protect scenic quality and views of the natural environment — including ridgelines and upland greenbelts, hillsides, water, and trees — from adverse impacts related to development.	**Consistent.** The proposed Project would preserve unchanged the ridgeline that provides the visual backdrop to the site, and mitigation requirements are identified in this Addendum to replace removed trees.
St. Vincent's Silveira	
SV-1.4 – Maintain the Miller Creek Corridor. Consistent with streamside conservation policies in the Natural Systems and Agriculture Element, maintain the Miller Creek corridor east of Highway 101 as an open channel and enhance the creek. Require minimum setbacks of 100 feet from the top of each bank. Protect Miller Creek as the centerpiece of the watershed and an important natural habitat area.	**Consistent.** Other than the proposed bridge crossing to provide access to the site, the Project would preserve and protect the Miller Creek corridor.
SV-1.6 – Preserve Natural Habitats and Their Connectivity. Preserve the connectivity of the natural habitats of the site in a way that will enhance habitat diversity, enable wildlife movement, and protect the habitats of birds, other wildlife, and endangered animal and plant species.	**Consistent.** The wildlife corridor provided by Miller Creek and its riparian corridor would be preserved to the maximum extent feasible, allowing for the necessary bridge crossing. It wouldn't interfere with the movement of wildlife through the area.
SV-1.7 – Preserve Trees. Protect major native oak groves and specimen oak trees. Preserve the native oak woodlands on Pacheco Ridge. Preserve healthy and safe eucalyptus groves, which support colonies of monarch butterflies and colonial nesting birds such as heron rookeries, and/or are known raptor nesting sites. See also BIO-1.3 and BIO-1.e.	**Consistent.** Although development of the Project would require removal of up to 50 trees, including numerous oaks, out of 156 trees surveyed on the site, the majority of the trees would be preserved and removed trees would be replaced at a 2-to-1 replacement ratio.
SV-1.9 – Retain the Natural Drainage Swale. Retain the drainage swale and its discharge sources in the northwest section of the St. Vincent's property. Improve the swale as a natural drainage feature and enhance it as a wildlife corridor connecting the uplands with the Miller Creek riparian corridor.	**Consistent.** The swale referenced in the policy is not located on the Project site.
SV-1.11 – Protect Ridge and Upland Greenbelt Lands. Ensure that land use in areas shown as Ridge and Upland Greenbelt is consistent with Ridge and Upland Greenbelt policies. Maintain Pacheco Ridge in its natural state as a community separator and a habitat resource. Maintain connections between oak woodlands on Pacheco Ridge and the Miller Creek riparian community and bayland habitats.	**Consistent.** The Project site is outside of the Ridge and Upland Greenbelt area designated on the St. Vincent's and Silveira Land Use Policy Map in the Countywide Plan.
SV-3.1 – Ensure Sensitivity of Development. Ensure that development is sensitive to the character of the land.	**Consistent.** The Project would preserve the existing hillsides on the site and integrate

Countywide Plan Policy	Project Consistency
Retain the existing natural topography to the greatest extent possible. Keep cut and fill to a minimum.	with the contours of the existing topography on the lower portions of the site.
SV-3.2 – Protect Existing Views. Development shall not negatively impact existing views of Pacheco Ridge, the Chapel, the bucolic setting, and the bay as seen from Highway 101. The properties shall continue to function as a visual buffer separating the cities of San Rafael and Novato.	**Consistent.** The Project would have no effect on the views cited in this policy.
SV-3.3 – Orient Development Toward Miller Creek. In areas adjoining Miller Creek, development shall be set back from as well as oriented toward the creek in order to encourage preservation of the creek as an environmental resource. Development should not turn its back on the creek.	**Consistent.** Aside from the necessary bridge crossing and access driveway, the Project development would well removed from Miller Creek, and would not "turn its back on the creek."
SV-3.5 – Conserve Resources. Site and design buildings to incorporate all feasible resource conserving features, such as solar orientation of streets and structures, native and drought tolerant landscaping, active and passive solar designs, and alternative and/or recycled construction materials for buildings.	**Consistent.** The Project is proposing an extensive palette of native and drought tolerant landscaping.
The Socioeconomic Element	
Historical and Archaeological Resources	
HAR-1.1 – Preserve Historical Resources. Identify archaeological and historical resource sites.	**Consistent.** The archaeological and historical resource sites are identified in Section 5 of this Environmental Checklist.
HAR-1.3 – Avoid Impacts to Historical Resources. Ensure that human activity avoids damaging cultural resources.	**Consistent.** Although no significant cultural resources have been identified on the site, the Project would be required to comply with Section 22.20.040(D) of the County Development Code, which stipulates that in the event that archaeological or historic resources are discovered during any construction, construction activities shall cease, and the County shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may occur in compliance with State and Federal law.
HAR-1.4 – Participate in Historical Preservation Efforts. Work with federal, State, and local agencies, and interested individuals, groups, and educational organizations to obtain funding and employ other methods to preserve archaeological and historical sites.	**Consistent.** The Project would not interfere with the County's efforts to participate in historical preservation.

Countywide Plan Policy	Project Consistency
HAR-2.1 – Encourage Recognition of Significant Sites. Support efforts by community members, including owners of property with historical significance, to learn about and seek preservation and protection of these resources.	**Consistent.** Although no significant historic cultural resources have been identified on the Project site, if such resources were encountered during Project construction, the efforts required by County Development Code Section 22.20.040(D) would provide the opportunity to preserve and protect identified resources.

Zoning Consistency Analysis

As noted above, the site is zoned RMP-1.38 (Residential, Multi-family Planned, 1.38 units/acre). Section 22.10.030 of the County Development Code identifies (in Table 2-4) residential care facilities and multi-family dwellings as principally permitted uses in the RMP district, indicating that the proposed senior living apartments and affordable apartments are permitted uses on the site.

The development standards promulgated in Section 22.10.040 of the Development Code establish height limits in the RMP district of 30 feet for primary structures and 15 feet for accessory structures. Minimum lot area and minimum setback requirements in this district are determined as part of the Master Plan, Precise Development Plan, or Design Review processes. As previously noted, the Development Code does not establish a maximum FAR for the RMP district. As provided in Development Code Chapter 22.16, Discretionary Development Standards, minimum setback requirements, floor area ratio, maximum site coverage, height limits, and other development standards, applicable to a site in a planned district, are to be determined through the Master Plan, Design Review, Site Plan Review, or Tentative Map process, whichever is applicable. In the case of the proposed Project, these standards will be determined during design review. Thus, while the proposed main building and affordable apartment building appear to exceed the 30-foot height limit applicable to the RMP district, their proposed heights may be allowed during design review.

Section 22.20.040 of the Development Code establishes requirements for outdoor construction activities that include construction signage, dust control measures, and verification of development standards (setbacks, building heights, FAR). In addition, Section 22.20.040(D) stipulates that in the event that archaeological or historic resources are discovered during any construction, construction activities shall cease, and the Agency shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may occur in compliance with State and Federal law. The disturbance of an Indian midden may require the issuance of an Excavation Permit by the Department of Public Works, in compliance with Chapter 5.32 (Excavating Indian Middens) of the County Code. These requirements will apply to the proposed Project construction.

Chapter 22.26 of the Development Code requires a professionally-prepared landscape plan as part of a development application and establishes objectives for landscaping that include providing visual amenities and environmental benefits; screening incompatible land uses; preserving trees and native plant species; and providing fire-safe landscaping. The final landscape plan is approved by the County prior to issuance of a building permit. A detailed landscape plan has been submitted as part of the current application, which will be subject to review and approval by the County.

Chapter 22.26 of the Development Code is intended to promote the protection and preservation of native trees, and requires a Tree Removal Permit pursuant to Chapter 22.62 for removal of protected trees, which are generally native species with trunk diameters of either 6 or 10 inches, depending on species. Chapter 22.62 also pertains to removal of heritage trees, which are also generally native species with trunk diameters of either 18 or 30 inches, depending on species.

As a condition of issuance of a Tree Removal Permit, the Director of the Community Development Agency may require establishment and maintenance of replacement trees, implementation of a vegetation management plan, removal of invasive species, and/or posting of a bond to cover the cost of inspection to ensure success of the required measures. Although removal of trees is necessary to accommodate the proposed bridge and access drive construction, replacement trees would be planted at a 2-to-1 ratio. A Tree Removal Permit will be secured prior to the initiation of site preparation.

The proposed Project is subject to the previously approved *Oakview Master Plan*, which establishes the allowed land uses and development standards for the property. The requirements for master plans are codified in Chapter 22.44 of the Development Code.

The Project will require design review pursuant to Chapter 22.42 of the Development Code.

During the design review process County decision makers will determine whether or not the proposed Project provides architectural design, massing, materials, and scale that are compatible with the site surroundings and the community, and otherwise conforms to the requirements of Chapter 22.42.

11-c) As was the case at the time the 2005 EIR was certified, there is no adopted Habitat or Natural Community Conservation Plan in Marin County.

2005 EIR Mitigation Measures

There were no mitigation measures for land use and planning impacts in either the *2005 EIR* or in the 2005 EIR, and no new mitigation measures are required for the proposed 2015–2023 Housing Element.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe significant land use and planning impacts than those previously evaluated in the 2005 EIR.

12. Mineral Resources

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
12. Mineral Resources. Would the Project:					
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Final EIR, pgs. 5.1-14 to 5.1-15 and 5.1-25; Final EIR Second Amendment, pg. 6	No	No	No	n/a
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Final EIR, pgs. 5.1-14 to 5.1-15 and 5.1-25; Final EIR Second Amendment, pg. 6	No	No	No	n/a

Discussion

12-a) The Final EIR determined that there are no known aggregate resources within the site boundaries, based on maps prepared by the California Division of Mines and Geology (subsequently renamed the California Geological Survey). It stated that the friable nature of much of the site's bedrock prohibited its usefulness as commercial aggregate material. Accordingly, Impact 5.1-12 (Aggregate and Rare Mineral Resources) was identified as a less-than-significant impact, and no mitigation was required. The Final EIR Second Amendment reached the same conclusion. There have been no changes since certification of the 2005 EIR with the potential to alter these conclusions. Therefore, implementation of the proposed Project would not result in any new or substantially more severe impacts on mineral resources.

12-b) As discussed above, the Final EIR determined that there are no known aggregate resources within the site boundaries, but did not make reference to any designation of mineral resources in the Countywide Plan. Since certification of the 2005 EIR, an updated *Marin Countywide Plan* was adopted in 2007. Map 3-5 of the Countywide Plan identifies 12 areas in the County where there are known mineral resources of sufficient value to qualify as marketable commodities. They include sites designated as mineral resource zones by the

State of California and four sites with approved operating permits that are not listed by the State. The Countywide Plan states that four of the sites listed by the State should be removed from the listing because they have been purchased for preservation as open space, or are currently developed with residential uses, or are highly environmentally sensitive. None of the mineral sites shown on Map 3-5 are in the vicinity of the Project site. The proposed Project is consistent with the 2005 EIR, and the conclusions regarding mineral resources are still applicable to the current Project. The proposed Project would not cause any new or substantially more severe impacts on mineral resources than were previously evaluated in the 2005 EIR.

2005 EIR Mitigation Measures

There were no mitigation measures for impacts on mineral resources in the 2005 EIR.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe significant impacts to mineral resources than those previously evaluated in the 2005 EIR.

13. Noise

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
13. Noise. Would the Project result in:					
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Final EIR pgs 5.7-11 to 5.7-12; Final EIR Second Amendment pg. 3	No	No	Yes	Yes, with revisions
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	n/a	No	No	Yes	n/a
c. A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Final EIR pgs. 5.7-12; Final EIR Second Amendment pgs 3	No	No	Yes	n/a
d. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Final EIR pgs 5.7-12 to 5.7-13	No	No	Yes	Yes
e. For a Project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	n/a	No	No	Yes	n/a
f. For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	n/a	No	No	No	n/a

Discussion

13-a) Impact 5.7-1 (Land Use Compatibility Impact) of the Final EIR evaluated the Land Use Compatibility of the proposed assisted living facility as well as residential lots to the west of the site. Impact 5.7-1 referencing the residential lots is not applicable because the lots are not proposed as part of this Project. Impact 5.7-1 indicated that noise levels at the office building, subsequently replace by an assisted living facility, could exceed the noise and land use compatibility criteria. Previously adopted Mitigation Measure 5.7-1 addressed measures that would reduce noise levels at the residential lots, but did not address the office buildings/senior living center. The Final EIR Second Amendment included mitigation measures to address noise and land use compatibility impacts at the senior living facility to reduce noise levels from U.S. 101 on the project site, such as designing open spaces as courtyards shielded by the project's buildings, constructing earth berms, and incorporating non-operable, sound-rated windows.

2017 Noise Assessment Update

Since certification of the 2005 EIR, the County adopted a new Countywide Plan, and has made numerous revisions to the Development Code. To ensure that the potential noise impacts of the proposed Project are fully addressed, a new noise assessment was conducted by the acoustical consulting firm of Illingworth & Rodkin, which is summarized in this section of the Addendum. This assessment included a review and consistency analysis of relevant policies in the current *Marin Countywide Plan* (2007) as well as the County Development Code and pertinent State regulations, all of which are discussed below. Noise measurements of current ambient noise levels at the Project site were conducted in November 2017, and have been factored into the updated noise analysis. Due to the technical nature of noise impact assessment, a background discussion on the fundamentals of environmental noise, including definitions of the terms used to describe the existing noise conditions and potential noise impacts of the proposed Project, is provided in Appendix B.

Another significant change that has occurred since certification of the 2005 EIR is that a number of recent court decisions, such as the *California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015, Case No. S213478), have altered the scope of CEQA review as it applies to exposure of receptors to existing environmental conditions. Except for certain types of projects or in certain conditions, CEQA is no longer concerned with the impact of the environment on a project, but is only intended to address the potential impacts of a proposed project on the environment. Consequently, exposure of a proposed project's future residents to existing excessive noise levels is no longer considered a significant effect on the environment pursuant to CEQA. Therefore, although the updated noise analysis provides information on these types of effects that could result from Project implementation, they are not treated as significant impacts for purposes of CEQA. Accordingly, Final EIR Impact 5.7-1 would no longer apply to the Project and, in addition, the provisions of previously adopted Mitigation Measure 5.7-1 would not have been applicable to the current Project in any event because they applied to the single-family residential lots proposed as part of the original project. However, the Final

EIR Second Amendment identified unnumbered noise mitigation requirements pertaining to the Mitigation Alternative (assisted living facility) that were adopted as Condition of Approval No. 5-e. Because these requirements are also intended to achieve compliance with the Countywide Plan's criteria for acceptable interior and exterior noise levels, they would continue to apply to the Proposed Project. Furthermore, for purposes of public information and disclosure this Addendum discusses the consistency of the proposed Project with the provisions of the Countywide Plan pertaining to noise, in particular Implementing Programs NO-1.a and NO-1.b.

Existing Noise Environment

The Project site is located on the west side of U.S. 101 between Lucas Valley Road and St. Vincent Drive in unincorporated Marin County. Figure N-2 (Figure N-1 is in Appendix B) shows the Project site plan overlaid on an aerial image of the site vicinity. As shown on Figure N-2, the Project site is surrounded by open space, with residential and commercial land uses beyond. Intervening terrain separates the site from the nearest residents to the west and north. The nearest residence to the east is opposite U.S. 101. Commercial buildings, which are not considered noise-sensitive, are also located to the north and southeast of the Project site.

A noise monitoring survey was performed to quantify and characterize ambient noise levels at the site and in the Project vicinity between Tuesday, November 28, 2017 and Thursday, November 30, 2017. The survey included two long-term noise measurements (LT-1 and LT-2) and two short-term noise measurements (ST-1 and ST-2), as shown on Figure N-2. The noise environment at the site and in the surrounding areas results primarily from vehicular traffic along U.S. Highway 101. Traffic along Marinwood Avenue is a secondary source of noise at the nearest receptors north of the site.

Long-term noise measurement LT-1 was made on the southwest corner of the Marinwood Avenue and Grande Paseo intersection, approximately 40 feet west of the Marinwood Avenue centerline. This location was selected to quantify noise levels due to traffic along Marinwood Avenue and U.S. 101. Hourly average noise levels at this location typically ranged from 54 to 65 dBA L_{eq} during the day and from 46 to 61 dBA L_{eq} at night. The day-night average noise level on Wednesday, November 29, 2017 was 63 dBA L_{dn}. The daily trend in noise levels at LT-1 is shown on Figure N-3.

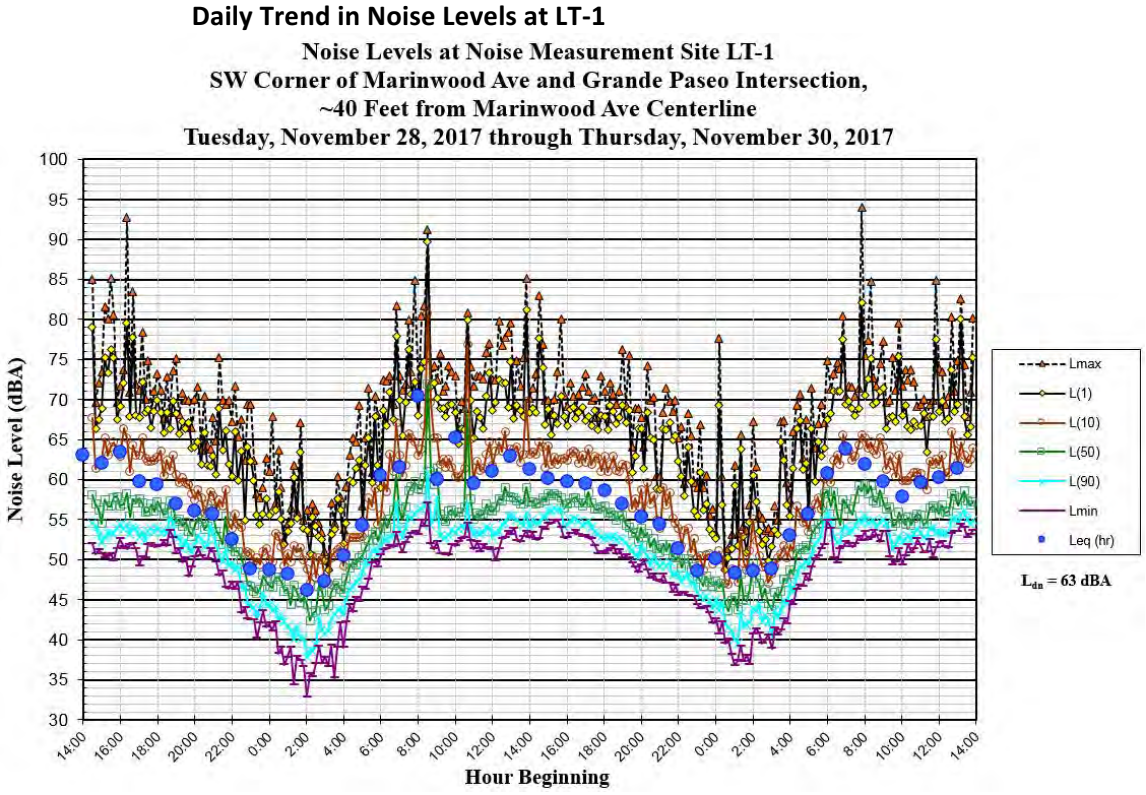
Long-term noise measurement LT-2 was made at the Project site, approximately 180 feet west of the U.S. 101 centerline. This location was selected to quantify noise levels due to traffic along U.S. 101. Hourly average noise levels at this location typically ranged from 65 to 69 dBA L_{eq} during the day and from 59 to 69 dBA L_{eq} at night. The day-night average noise level on Wednesday, November 29, 2017 was 72 dBA L_{dn}. The daily trend in noise levels at LT-2 is shown on Figure N-4.

Short-term noise measurement ST-1 was made in front of 222 Elvia Court, approximately 35 feet north of the roadway centerline. This location was selected to quantify noise levels at

Figure N-2

Noise Measurement Locations

Source: Google Earth



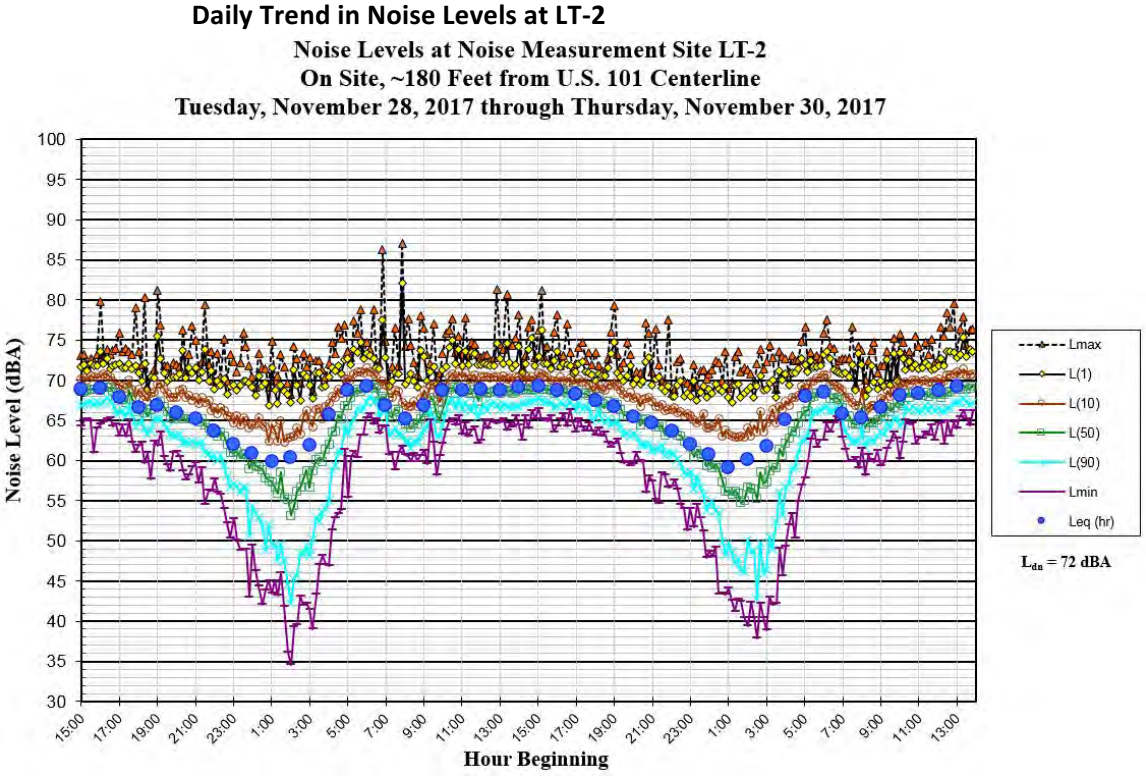


Figure N-3

Noise Levels at Noise Measurement Sites

Source: Illingworth & Rodkin, 2018

Figure N-4

Preliminary STC Rating Recommendations for Windows and Doors

Source: Illingworth & Rodkin, 2018

the residential land uses west of the Project site. The 10-minute average noise level measured at this location between 1:10 p.m. and 1:20 p.m. on Thursday, November 30, 2017 was 36 dBA L_{eq}. Short-term noise measurement ST-2 was made at the Project site, approximately 300 feet west of the U.S. 101 centerline. This location was selected to quantify noise levels at the approximate setback of the proposed building from U.S. 101. The 10-minute average noise level measured at this location between 1:40 p.m. and 1:50 p.m. on Thursday, November 30, 2017 was 66 dBA L_{eq}. Table 13-1 summarizes the results of the short-term measurements. The results of these long-term and short-term noise measurements are consistent with the noise levels measured as part of the 2002 Oakview Final EIR.

Table 13-1. Summary of Short-Term Noise Measurement Data (dBA)

Noise Measurement Location	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1: In front of 222 Elvia Court. (11/30/2017, 1:10 p.m. - 1:20 p.m.)	48	42	39	34	32	36
ST-2: In field of the Project site, ~300 feet from U.S. 101 (11/30/2017, 1:40 p.m. - 1:50 p.m.)	73	71	67	65	64	66

Source: Illingworth & Rodkin, 2018

Countywide Plan Consistency Analysis

Implementing Program NO-1.a of the *Marin Countywide Plan* states that exterior noise levels at outdoor recreation use areas of multi-family residential land uses should be maintained at or below 65 dBA L_{dn} to be considered "normally acceptable" with the noise environment, as indicated by the acceptable noise levels established in Countywide Plan Figure 3-41 [shown in Appendix B as Figure N-1], which is referenced in Implementing Program NO-1.a. These exterior noise standards do not apply to private decks or balconies. The County also establishes that interior noise levels at multi-family residential developments be maintained at or below 45 dBA L_{dn}, consistent with the State Building Code.

The future noise environment at the Project site would continue to result primarily from traffic along U.S. 101. Traffic volume data for U.S. 101 contained in the Caltrans 2016 Traffic Volumes on California State Highways document were compared to the 1996 traffic volumes.[67] The traffic volume was calculated to increase by 21 percent over 20 years. By

67 http://www.dot.ca.gov/trafficops/census/

applying the same yearly increase in traffic volumes over the next 20 years, the future traffic noise level was calculated to increase by about 1 dBA L_{dn} over existing conditions.

Future Exterior Noise Environment. The proposed Project would consist of three buildings: the main building, the assisted living memory care building, and the affordable apartment building. Common residential outdoor use areas in the main building would include a ground-floor dining terrace on the eastern facade of the building, a main level central courtyard, a second-floor upper level courtyard, a third-floor roof deck, and two ground-level courtyards along the western façade of the building. Common residential outdoor use areas in the one-story assisted living memory care building would include a central courtyard. There are no common residential outdoor use areas proposed at the affordable apartment building. Apart from the dining terrace, all outdoor common use areas are designed in accordance with the 2004 Final EIR Second Amendment noise mitigation measure, which required outdoor living spaces to be provided as secluded courtyards with the segment of the building closest to U.S. 101 shielding the courtyard areas from the noise generated by highway traffic.

Future traffic noise levels resulting from U.S. 101 were modeled using the Federal Highway Administration's Traffic Noise Model (TNM) Version 2.5 to predict future noise levels at various locations throughout the Project site. Factors that would affect the results of the calculated noise levels, such as elevations and various barriers (retaining wall, buildings), were incorporated into the TNM model. The 2004 Final EIR Second Amendment noise mitigation measure required construction of an earth berm along the U.S. 101 frontage. The design of the current Project incorporates substantial changes to the existing topography of the site in order to provide acoustical shielding to ground floor receptors exposed to U.S. 101 traffic noise. The traffic noise modeling results indicated that all outdoor common use areas listed above, except for the dining terrace, would be exposed to exterior noise levels below the County's threshold of 65 dBA L_{dn}. The ground floor dining terrace along the eastern façade of the main building would be exposed to an exterior noise level of 70 dBA L_{dn}. While noise levels could exceed the 65 dBA L_{dn} "normally acceptable" threshold, noise levels would fall within the "conditionally acceptable" range of up to 70 dBA L_{dn}. The incorporation of a glass barrier 6 feet high with no gaps on the bottom around the eastern façade of the dining terrace area would provide 3 to 5 dBA of acoustical shielding at a receptor seared within the dining terrace

Exterior noise levels at the acoustically shielded residential outdoor use courtyards and decks throughout the site, except for the main building dining terrace, would not exceed the County's 65 dBA L_{dn} exterior noise standard for multi-family residential land uses and would be considered compatible with the proposed land use. The main building dining terrace, with the incorporation of a glass barrier, would fall within the conditionally acceptable range of up to 70 dBA L_{dn}. The terrace would be considered compatible with the proposed land use with the understanding that the residents would have the option to choose other common outdoor use areas within the normally acceptable noise level range if quieter noise levels were desired.

Future Interior Noise Environment. Residential units would be located on the ground floor of the assisted living memory care building, on the ground through third floor of the main building, and on the second floor of the affordable apartment building. The traffic noise model calculated that residential units with direct line-of-sight to U.S. 101 (e.g. units along the eastern facades of all buildings, southern units of the assisted living building, and units of the apartment building) would have exterior noise levels ranging from 70 to 76 dBA L_{dn}. Residential units along the western facades of the buildings without direct line-of-sight to U.S. 101 and afforded acoustical shielding due to terrain or intervening buildings had calculated noise levels of less than 60 dBA L_{dn}.

Interior noise levels would vary depending upon the design of the buildings (relative window area to wall area) and the selected construction materials and methods. Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA L_{dn}, the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows, at the discretion of the residents, to control noise. Where noise levels exceed 65 dBA L_{dn}, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

For the proposed Project, the interior noise levels assuming standard construction methods and windows and doors partially open for ventilation would be up to 61 dBA L_{dn}, which exceeds the County's 45 dBA L_{dn} threshold for interior noise at residential land uses.

Construction Noise

Section 6.70.030 (5) of the Marin County Code establishes allowable hours of construction between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturdays. Construction is prohibited on Sundays and holidays. Loud noise-generating construction-related equipment (e.g., backhoes, generators, jackhammers) can be maintained, operated, or serviced at a construction site from 8:00 a.m. to 5:00 p.m. Monday through Friday only. This analysis assumes that construction activities would occur only during the allowable hours. Project construction would be consistent with the code limits and the impact is less-than-significant.

Operational Noise

According to the *Marin Countywide Plan*, stationary equipment noise from any property must be at or below 50 dBA L_{eq} during daytime hours (i.e., between 7:00 a.m. and 10:00 p.m.) and at or below 45 dBA L_{eq} during nighttime hours (i.e., between 10:00 p.m. and 7:00 a.m.) as measured at a residential property.

The closest residential land use is a residence approximately 650 feet northeast of the proposed Project site opposite U.S. 101. Noise from the operations of the Project (i.e., mechanical noise, truck loading, parking circulation) would not be audible at this residence over the noise produced by U.S. 101. The other residential land uses to the west and north of the Project site are over 1,000 feet from the site, and shielded by intervening terrain. Noise from the operations of the Project would not be audible at these other residences. When accounting for the distance separating the site from the receptors and shielding provided by the intervening terrain, the impact would be less-than-significant.

Based on the preceding analysis, the proposed Project would not have a new or substantially more severe significant impact due to exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance.

13-b) Vibration resulting from Project-related construction activities was not analyzed as part of the 2005 EIR. A new vibration analysis was conducted as part of the noise assessment prepared for the current Project. It is summarized below, and a background discussion of the principles of vibration effects is provided in Appendix B.

2017 Noise Assessment Update

The construction of the Project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site preparation work, grading and excavation, trenching, paving, new building framing and finishing, and bridge construction. This analysis assumes the proposed Project would not require pile ***driving***, which can cause excessive vibration.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards and 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern,. No ancient buildings or buildings that are documented to be structurally weakened adjoin the Project site. Therefore, ground-borne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in a significant vibration impact.

Table 13-2 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

Table 13-2. Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)
Pile Driver (Impact)	upper range	1.158
	typical	0.644
Pile Driver (Sonic)	upper range	0.734
	typical	0.170
Clam Shovel Drop		0.202
Hydromill (Slurry Wall)	in soil	0.008
	in rock	0.017
Vibratory Roller		0.210
Hoe Ram		0.089
Large Bulldozer		0.089
Caisson Drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006.

The proposed Project has two construction components; the Oaks Senior Living Community site and the extension of Marinwood Avenue to the site itself. The closest sensitive receptors to the Oaks site would be the residence opposite U.S. 101 located approximately 650 feet to the northeast of the Oaks site. At this distance, vibration levels attributable to Project construction would be up to 0.006 in/sec PPV, which would be well below the 0.3 in/sec PPV threshold. The closest commercial land use to the Oaks site would be the commercial building opposite U.S. 101, approximately 600 feet to the southeast of the Oaks site. At this distance, vibration levels attributable to Project construction would be up to 0.006 in/sec PPV, which would also be well below the 0.3 in/sec PPV threshold.

The closest sensitive receptor to the Marinwood Avenue extension construction area would be the residence located approximately 20 feet to the northwest. At this distance, vibration levels attributable to Project construction would be up to 0.27 in/sec PPV, which would be below the 0.3 in/sec PPV threshold. The closest commercial land use to the Marinwood Avenue extension would be the commercial building located approximately 70 feet to the east. At this distance, vibration levels attributable to Project construction would be up to 0.07 in/sec PPV, which would be below the 0.3 in/sec PPV threshold.

Construction vibration levels are expected to be below the 0.3 in/sec PPV significance threshold at nearby residential and commercial buildings. Therefore, construction of the proposed Project would have a less-than-significant vibration impact.

13-c) Final EIR Impact 5.7-2 (Traffic Noise) evaluated traffic noise increases anticipated with the project. An evaluation of the traffic analysis indicated that the project would not increase noise levels on the surrounding streets by more than 2 dBA, which would be a less-than-significant impact. No mitigation was required. The Final EIR Second Amendment did not identify an impact due to operational noise generated by the project.

2017 Noise Assessment Update

Implementing Program NO-1.c of the *Marin Countywide Plan* defines a traffic noise impact to be an increase of 3 dBA if the resulting noise level would exceed the "normally acceptable" standard for the impacted land uses or an increase of 5 dBA if the noise level would not exceed the "normally acceptable" standard. According to the Countywide Plan, the “normally acceptable” outdoor noise level standard for the single-family residences in the project vicinity would be 60 dBA L_{dn}, and existing ambient levels exceed this threshold. Therefore, a significant impact would occur if traffic due to the proposed Project would permanently increase ambient levels by 3 dBA L_{dn}. For reference, traffic volumes would have to double for noise levels to increase by 3 dBA L_{dn}.

The updated traffic study prepared for the current Project provided peak-hour traffic volumes for the Project-generated traffic at local and major roadways in the immediate Project vicinity.[68] Traffic volume information was reviewed to calculate the permanent noise increase attributable to Project-generated traffic. Traffic volumes under the Existing Plus Project scenario were compared to the Existing scenario to calculate the relative increase in the hourly average traffic noise level (L_{eq}) attributable to the proposed Project. The change in the L_{dn} would be the same as the change in the peak-hour L_{eq}. The permanent noise level increase due to the Project-generated traffic would be less than 1 dBA L_{dn} at noise-sensitive receptors in Project vicinity. Therefore, the proposed Project would not cause a substantial permanent noise level increase at the nearby noise-sensitive receptors. The Project would not cause a new or substantially more severe operational noise impact than was previously disclosed in the 2005 EIR.

13-d) Impact 5.7-3 (Construction Noise) of the Final EIR evaluated noise attributable to the construction of the previously proposed office development and residential lots. The finding reached under Impact 5.7-3, which pertains to the residential lots that are not part of the current Project, is not applicable. Impact 5.7-3 indicated that noise levels during construction would be elevated at adjacent neighbors. Previously adopted Mitigation Measure 5.7-3 identified measures that would reduce exposure of neighboring properties to excessive noise levels from construction-related activities, such as setting allowable

68 W-Trans, *Traffic Impact Study for the Oaks Project*, June 5, 2017.

hours of construction, adequately muffling and maintaining equipment, and assigning a disturbance coordinator who respond to complaints. The Final EIR Second Amendment identified new measures to reduce noise levels at the assisted living facility evaluated in that document, but did not identify new construction-related noise impacts or mitigation measures.

2017 Noise Assessment Update

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time. Project construction is anticipated to occur over an approximate period of 19 months, starting at the beginning of 2019.

While noise thresholds for temporary construction are not provided in the Countywide Plan or County Code, as discussed in Item 13-a, the State of California has established an interior noise threshold of 45 dBA for habitable rooms. Assuming a 15 dBA exterior-to-interior reduction for standard residential construction and a 25 dBA exterior-to-interior reduction for standard commercial construction, this would correlate to an exterior threshold of 60 dBA L_{eq} at residential land uses and 70 dBA L_{eq} at commercial land uses. Additionally, temporary construction would be annoying to surrounding land uses if the ambient noise environment increased by at least 5 dBA L_{eq} for an extended period of time. Therefore, the temporary construction noise impact would be considered significant if Project construction activities exceeded 60 dBA L_{eq} at nearby residences or exceeded 70 dBA L_{eq} at nearby commercial land uses and exceeded the ambient noise environment by 5 dBA L_{eq} or more for a period longer than one year.

The noise-sensitive receptors to the north of the Project site would have existing daytime ambient noise levels similar to the noise levels recorded at LT-1. Based on these data, the average hourly noise level during construction hours would range from 54 to 65 dBA L_{eq}. The noise-sensitive receptors to the northeast of the Project site and the commercial receptors to the southeast of the Project site would have existing daytime ambient noise levels similar to the data collected at LT-2. Average hourly noise levels during construction hours at these receptors would range from 65 to 69 dBA L_{eq}.

Construction activities generate considerable amounts of noise, especially during earth-moving activities and during the construction of the building's foundation when heavy equipment is used. Typical hourly average construction-generated noise levels for residential mixed-use buildings are about 81 to 88 dBA L_{eq} measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.), as shown in Table 13-3. The typical range of maximum instantaneous noise levels would be 78 to 90 dBA L_{max} at a distance of 50 feet, as shown in Table 13-4.

Table 13-3. Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

Construction Phase	Type of Construction							
	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.

Table 13-4. Construction Equipment 50-Foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
In-situ Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes:
[1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.
[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.
[3] Portable Air Compressor rated at 75 cubic feet per minute (cfm) or greater and that operates at greater than 50 psi.

The proposed Project is expected to take a total of approximately 19 months to complete. Construction activities would include site preparation, excavation, grading, trenching, building construction, bridge construction, paving, and architectural coating. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by stage and vary within stages, based on the amount of equipment in operation and the location at which the equipment is operating. The hauling of excavated materials and construction materials would generate truck trips on local roadways as well.

A list of equipment expected to be used for the proposed Project construction period and phasing information for the Project was available at the time of this study. The calculated construction equipment noise data were used to estimate the range of construction noise levels expected at the nearby existing land uses. The estimates were calculated by measuring from the nearby receptors to the center of the proposed building.

Hourly average noise levels due to construction activities at the Project site during busy construction periods outdoors would range from about 74 to 88 dBA L_{eq} at a distance of 50 feet. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. The nearest noise-sensitive land use is located opposite U.S. 101 approximately 740 feet northeast from the center of the closest proposed Project building. The nearest commercial land use is located opposite U.S. 101 approximately 710 feet southeast from the center of the closest Project building. At these distances, hourly average noise levels during busy construction periods would range from 51 to 65 dBA L_{eq}. Although at times the construction noise levels at the noise-sensitive receptor opposite U.S. 101 would exceed 60 dBA L_{eq}, the Project construction noise would not exceed the ambient noise environment by at least 5 dBA L_{eq} for a period exceeding one year. In addition, construction noise at the Project site would not be audible at the residential and commercial and uses over traffic noise levels from U.S. 101.

The nearest noise-sensitive land use to the Marinwood Avenue extension would be the residence located approximately 100 feet from the center of the proposed bridge. At this distance, hourly average noise levels during busy construction periods would range from 78 to 82 dBA L_{eq}. The nearest commercial land use to the Marinwood Avenue extension would be the school bus building located approximately 85 feet from the center of the proposed

bridge. At this distance, hourly average noise levels during busy construction periods would range from 79 to 83 dBA L_{eq}. Construction noise from the Marinwood Avenue extension would be above both the residential and commercial thresholds, and above the ambient noise environment by at least 5 dBA L_{eq}; however, the timeframe for the Marinwood Avenue extension section of construction with respect to the entire Project will last less than one year.

Temporary construction noise levels at the nearest receptors to the Project site would be above the 60 dBA L_{eq} residential threshold, but would not exceed the 70 dBA L_{eq} commercial threshold or the ambient noise environment by 5 dBA L_{eq} for a period lasting more than one year. At the closest receptors to the Marinwood Avenue extension, temporary construction noise levels would be above the 60 dBA L_{eq} residential threshold and above the 70 dBA L_{eq} commercial threshold and exceed the ambient noise environment be 5 dBA L_{eq}. However, the Marinwood Avenue extension construction is expected to last less than one year. Therefore, the temporary noise impact resulting from short-term Project construction activities would be considered less-than-significant.

Based on the preceding analysis, the proposed Project would not result in a new or substantially more severe significant construction noise impact than was previously disclosed in the 2005 EIR.

13-e) Aircraft noise was not analyzed in the 2005 EIR.

2017 Noise Assessment Update

San Rafael Airport is a small airport located approximately 1 mile southeast of the Project site. Although infrequent aircraft-related noise may contribute to ambient noise levels, the Project site lies outside the airport's influence area and 60-dBA CNEL noise contour; therefore, noise levels resulting from aircraft would be considered compatible with the proposed Project.

13-f) See Checklist Item 13-e, above.

2005 EIR Mitigation Measures

The 2005 EIR identified three mitigation measures to reduce identified noise impacts, which were adopted and made conditions of project approval. Previously adopted Mitigation Measure 5.7.3, intended to reduce temporary construction noise impacts, would continue to apply to the proposed Project, with the exception of one clause pertaining to the previously proposed single-family residential development (see Revised Mitigation Measures, below). Previously adopted Mitigation Measure 5.7-1, intended to reduce noise exposure of future residents of the single-family homes, is no longer applicable to the current Project. Mitigation Measures from the Final EIR Second Amendment, adopted as a condition of approval, included measures such as designing open spaces as courtyards shielded by the project's buildings, constructing earth berms, and incorporating non-operable, sound-rated windows. With the exception of the

earthen berm, these requirements were incorporated as conditions of approval, and would continue to apply to the current Project. No new mitigation measures would be required.

Unnumbered Mitigation Measure (Condition of Approval No. 5-e): The applicant shall implement the proposed noise mitigation measures to ensure that the project has been designed to meet the Countywide Plan's criteria for acceptable interior and exterior noise levels. This can be done by using sound rated windows and providing the buildings with mechanical ventilation so that the windows could be maintained closed. Non-operable (sealed) windows shall be provided on the Highway 101 frontage of the building. Outdoor areas exposed to an Ldn of 60 dB or less shall be provided on the westerly back side of the building.

Revised Mitigation Measures

Mitigation Measure 5.7-3 (Condition of Approval No. 45): Countywide Plan Policy N-2.4 requires that measures should be taken during all phases of construction to minimize exposure of neighboring properties to excessive noise levels from construction-related activity. Further, the Noise Element states that the Community Development Agency reserves the right to set hours for construction-related activities involving the use of machinery, power tools, or hammering. The type of construction, site location, and noise sensitivity of nearby land uses would determine the hours of construction. The conditions of approval would specify hours for staging and type of construction activities. In order to implement these policies, the following measures would be required to mitigate the project's short-term construction noise impacts:

- Adequately muffle and maintain all equipment used on the project site. All internal combustion engine-driven equipment should be fitted with intake and exhaust mufflers which are in good condition. Good mufflers with quieted compressors should result in all non-impact tools generating a maximum noise level of 85 dB when measured at a distance of 50 feet.
- Powered construction equipment should be turned off when not in use.
- Assign a disturbance coordinator to be available on-site during construction.
- Clearly post the name and telephone number of the disturbance coordinator so that neighbors have a contact person at the project site with whom to discuss problems and who can facilitate resolution of these problems.
- Confine residential construction to 8:00 AM to 5:00 PM on weekdays, at least during periods when construction is taking place within 1,000 feet of the nearest existing homes. Construction hours for activity in other parts of the site could be lengthened as appropriate, including assisted living construction on Parcel 2.

~~• Confine residential construction to 8:00 AM to 5:00 PM on weekdays, at least during periods when construction is taking place within 1,000 feet of the nearest existing homes. Construction hours for activity in other parts of the site could be lengthened as appropriate, including assisted living construction on Parcel 2.~~

Conclusion

With implementation of the previously adopted mitigation measures identified in the 2005 EIR, the proposed Project would not result in any new or substantially more severe noise impacts than those previously evaluated in the 2005 EIR.

14. Population and Housing

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
14. Population and Housing. Would the Project:					
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	n/a	No	No	No	n/a
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	n/a	No	No	No	n/a
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	n/a	No	No	No	n/a

Discussion

The 2005 EIR did not explicitly address potential population and housing impacts, though the growth that would occur as a result of project implementation was factored into the environmental analysis presented in the EIR, such as impacts on traffic and on public services. Information specific to the current proposed Project as it relates to population and housing is presented in this section.

14-a) The proposed Project would directly induce new population growth by creating 126 senior apartments and 6 affordable apartments on a currently vacant site., Although applying the County's average household size to determine the population that would be generated by the Project would result in an unrealistically high estimate, due to the nature and size of the apartments, absent demographic data specific to assisted living facilities, that metric is

applied to this analysis, recognizing that it overestimates the population growth that could be generated by the Project. According to the California Department of Finance (DOF), Marin County currently has an average household size of 2.83 persons.[69] Applying this factor to the proposed Project results in a total permanent population of 373 people. The actual number of new County residents would undoubtedly be considerably smaller, as many future residents of the Project are expected to be existing County residents who would transition to independent living or assisted living in the new senior community.

According to the Project applicant, a total of 65 employees, working in three daily shifts, are expected to work at the project when it is fully occupied; a smaller number of employees is anticipated for the first two or three years of operation. A maximum of 36 employees would be on site during peak hours.

While some of the jobs created by the Project would doubtless be filled by current Marin County residents, many could be filled by out-of-county residents, some of whom could be induced to move to Marin County. The Marin Countywide Plan Update EIR reported that 62.1 percent of County workers live and work in the same area.[70] However, for purposes of this analysis, it is assumed that half of the employees (33 employees) would move to the County. Applying the DOF household size estimate to the number of Project employees assumed to move to Marin County results in approximately 93 new County residents. Thus, the Project could induce population growth of roughly 466 people, including residents and employees, although it would likely be fewer for the reasons mentioned above. With a July 1, 2016 County population of 260,651 residents, this would represent a 0.18 percent increase in Marin County's population.[71]

The Marin Countywide Plan Update EIR addressed population growth in the unincorporated County, excluding the cities where the majority of County residents reside. It projected a 10.3 percent increase in the unincorporated portion of the population between 2006 and 2030, from 76,400 people to 83,561 people.[72] The conservative estimate of new residents generated by the Project would represent approximately 6.5 percent of the projected growth in the unincorporated County and about 0.56 percent of the projected 2030 population in the unincorporated County. A 0.56-percent increase in population in the unincorporated County and a 0.18-percent increase in total County population would be within the population growth projected in the Countywide Plan and would not be considered a substantial growth in population. In addition, the currently proposed Project would result in a smaller potential growth in Marin County's population than would have resulted under the previous project and which was used in the analysis of impacts in the

---

69 California Department of Finance, Table 1: E-5 County/State Population and Housing Estimates, 1/1/2017, Accessed February 27, 2018 at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

70 Marin County, *Marin Countywide Plan Update Draft Environmental Impact Report*, State Clearinghouse No. 2004022076, Exhibit 4.1-2, Daytime Populations of Marin County and California in 2000, January 2000.

71 Ibid.

72 Marin County, *Marin Countywide Plan Update Draft Environmental Impact Report*, State Clearinghouse No. 2004022076, Impact 4.1-2, Growth and Concentration of Population, January 2000.

2005 EIR. Therefore, the proposed Project would not result in any new or substantially more severe population impacts than were previously disclosed in the 2005 EIR.

14-b) There is no existing housing on the Project site, and there is therefore no potential for the Project to displace housing.

14-c) There is no existing development of any type on the Project site, and there is therefore not potential for the Project to displace people, such as employees of an existing business.

2005 EIR Mitigation Measures

The 2005 EIR did not identify any mitigation measures to reduce population and housing impacts.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe population and housing impacts than those previously evaluated in the 2005 EIR.

15. Public Services

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
15. Public Services.					
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any the public services:					
Fire protection?	Final EIR, pgs. 5.8-1 to 5.8-7	No	No	No	Yes
Police protection?	Final EIR, pgs. 5.8-7 to 5.8-8	No	No	No	n/a
Schools?	Final EIR, pgs. 5.8-13 to 5.8-15	No	No	No	n/a
Parks?	Final EIR, pgs. 5.8-15 to 5.8-17	No	No	No	n/a
Other public facilities?	n/a	No	No	No	n/a

Discussion

15-a) (Wildfire hazards are also addressed in Section 9, Item 9-h.) The Final EIR identified the following four potential impacts on fire protection services, including Impact 5.8-1 (Fire and Emergency Medical Service Impacts), Impact 5.8-2 (Wildland-Building Fire Exposure

Impacts), Impact 5.8-3 (Roadway Impacts), Impact 5.8-4 (Cumulative Fire and Emergency Medical Service Impacts); only Impact 5.8-2 was determined to be a significant impact. The Final EIR Second Amendment did not further address public services impacts.

The Final EIR concluded that the incremental increase in calls for fire protection and emergency medical response that would be generated by the project would not exceed the staffing or equipment capacity of the Marinwood Fire Department or San Rafael Fire Department, respectively, and found that response times to the project site by both agencies would be acceptable.

Impact 5.8-2 found that the large amount of natural fuel sources on and adjacent to the project site created a significant risk for wildfire. The existing natural fuel sources included heavy fuels (wood, trees, timber, and heavy large brush) and light to medium fuels (grass, weeds, brush, shrubs, and small trees), which ignite more easily and burn faster, though they are easier to extinguish than burning heavy fuels.

Impact 5.8-2 also determined that the introduction of proposed landscaping would present a very high fire risk and could create extreme fire conditions due to the site's topography. Some of the proposed species had a particularly high fire risk, including Bishop pine (*Pinus muricata*), tan oak (*Lithocarpus densiflorus*), California bay (*Umbellularia californica*), and coyote brush (*Bacharis pilularis*). Implementation of previously adopted Mitigation Measure 5.8-2, requiring implementation of a Fire Management Plan and a Vegetation Maintenance Plan, was specified in the Final EIR and found to reduce the impact to less than significant.

Changed Circumstances Since 2005 EIR Certification

Primary responsibility for providing fire protection services to the proposed Project would still fall to the Marinwood Fire Department (MFD), which still has the same staffing as reported in the Final EIR, i.e., one fire chief, three captains, seven firefighters, and 25 volunteer on-call firefighters. The MFD's equipment has changed somewhat, and now consists of one Type 1 fire engine that can produce 1,500 gallons per minute (gpm) from a static water source and up to 2,500 gpm when connected to a fire hydrant. The department also has a Type 3 wildland fire engine that can produce 500 gpm from a static water source or up to 1,000 gpm when connected to a fire hydrant.[73] MFD's longest ground ladder is a 30-foot extension ladder, but a truck company, capable of reaching higher than 30 feet, is included in all first alarm fire dispatches to structural fires through an Automatic Aid Agreement with the San Rafael Fire Department (SRFD).

[73] Thomas Roach, Fire Chief, Marinwood Fire Department, personal communication, December 19, 2017.

As concluded in the Final EIR, the proposed Project would not adversely affect the MFD's ability to provide fire protection services in its service area, and would not require the construction of new or expanded facilities.[74]

The Final EIR reported that the closest ambulance would respond from SRFD Station No. 6, located at 650 Del Ganado Road, with an estimated response time of 6 minutes 10 seconds to the Marinwood Avenue entrance to the site, but did not provide other information on the SRFD. The SRFD was contacted during preparation of this Addendum to obtain the following information: the ambulance response time from Station No. 6 is currently estimated at 9 minutes. In the event of a structure fire, a Battalion Chief would respond from Station No. 51 (1151 C Street), an engine (in addition to ambulance) would respond from Station No. 6, and a ladder truck would respond from 3530 Civic Center Drive.[75]

Based on preliminary review of the proposed Project, the SRFD expressed concerns about adequate fire access to the proposed Project. The turnaround at the end of the site driveway, in front of the memory care building, appears to provide an insufficient radius for fire apparatus; it will need to conform to California Fire Code Sections 503.2.4 and 503.2.5, which require dead-end fire apparatus access roads in excess of 150 feet to provide an approved turnaround for fire apparatus, as determined by the fire code official. Access to the buildings is also limited, and the SRFD would prefer to have either a dedicated fire lane looping around the building complex or access lanes extending up both the north and south sides of the development. The Department also noted that the proposed bridge crossing of Miller Creek must conform to California Fire Code Section 503.2.6, which establishes load capacity and other requirements.[76] These concerns can be addressed during the plan check process, which requires the sign-off from the responsible fire departments. The plan check process provides a mechanism to ensure that SRFD's concerns about fire apparatus access are adequately addressed.

These issues would not require the SRFD to construct new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Therefore, the proposed Project would not cause a new or substantially more severe significant impact on fire protection services than was evaluated in the 2005 EIR. Impact 5.8-2 (Wildland-Building Fire Exposure Impacts) would still apply to the Project, and implementation of previously adopted Mitigation Measure 5.8-2 would still be required.

15-b) The Final EIR reported that the Marin County Sheriff's Department was responsible for law enforcement in the unincorporated areas of the County, including the project site. The EIR also stated that the California Highway Patrol (CHP) also covers Lucas Valley Road to State

---

74 *Ibid*.

75 Robert Sinnott, Deputy Chief, San Rafael Fire Department, personal communication, December 20, 2017.

76 *Ibid*.

Highway 1 in West Marin, and provided police response when needed. Impact 5.8-5 (Police Protection Service Impacts) stated that the Sheriff's Department did not expect the proposed project to affect service or otherwise adversely affect the Department. The CHP expected an increase in traffic generated by the project, but was unable to estimate the amount of increased police services expected. No mitigation was required for the less-than-significant impact.

Changed Circumstances Since 2005 EIR Certification

Since certification of the 2005 EIR, the headquarters for the Sheriff's Department has been relocated from Civic Center to 1600 Los Gamos Drive, along with the County's 911/Communication Center and Emergency Operations Center. This has reduced the travel distance from the headquarters to the Project site from approximately 2.5 miles to about one-half mile. This may reduce the response time to the site, and with a substantially smaller project than the office and residential development evaluated in the Final EIR, there would be fewer calls for police services. The Sheriff's Department stated that it does not have any concerns regarding the impact of the currently proposed Project on the Department's ability to provide police protection services.[77]

The CHP was contacted several times during preparation of this Addendum, but no response had been received from the agency by the time of publication. However, it is the Sheriff's Department that has responsibility for police protection to the Project. Furthermore, the CHP's concern identified in the Final EIR was related to the generation of new traffic. With 28 single-family homes and 94,400 square feet of office development, the project evaluated in the Final EIR would have generated substantially more traffic than the current Project. Since the impacts on police protection services identified in the Final EIR were less than significant, and the current Project does not have any characteristics that would lead to more calls for police services than the project evaluated in the Final EIR, the EIR's conclusion of a less-than-significant impact on police protection services would still apply to the proposed Project, and no mitigation would be required.

Based on the above considerations, the proposed Project would not cause a new or substantially more severe significant impact on police protection services than was evaluated in the 2005 EIR.

15-c) The Final EIR identified two less-than-significant impacts on schools that would result from project development: Impact 5.8-12 (Public School Impacts – Dixie Elementary School District) and Impact 5.8-13 (Public School Impacts – San Rafael High School District). The Final EIR estimated that the 28 single-family homes would generate a total of 14 K-8 students, based on the then-current student generation rate of 0.5 students per residential household. The high school district used a student generation rate of 0.2 students per residential household, resulting in six new students generated by the project.

[77] Undersheriff Michael J. Ridgway, Marin County Sheriff's Office, personal communication, December 19, 2017.

The San Rafael High School District (SRHSD) had available capacity for more than 2,000 new students at the time the Final EIR was published, more than enough to accommodate the project and students generated by cumulative development. Similarly, the Dixie Elementary School District (DESD) had more than adequate capacity for students generated by the project and by cumulative development anticipated at the time.

The currently proposed Project would not directly generate any new students because the Project no longer includes the development of single-family homes, and the senior residences would not house any school-age children. In the event that any occupants of the six one-bedroom affordable apartments had school-age children, payment of the applicable school impact fees discussed below would mitigate any impact to local schools.

Senate Bill (SB) 50 (Government Code § 65955 *et seq*. and Education Code § 17629 *et seq*.) establishes fees for the impacts of new development on the demand for schools, and when a development project pays the SB 50 fees, no other CEQA mitigation for impacts on schools may be required. The proposed Project would be subject to these fees. Currently, the school facility fee in the SRHSD is $1.04 per square foot for residential development and $0.17 per square foot for commercial/industrial development.[78] According to the SRHSD, the commercial rate would be applied to the senior living buildings, while the residential rate would apply to the affordable apartments.[79] The current residential school facility fee at the DESD is $3.36 per square foot, which is shared with the SRHSD, with 9/13th of the fee going to DESD and the remainder going to the SRHSD.[80]

The proposed Project would be required to pay the applicable school impact fees, which would fully mitigate for any incremental impact the Project would have on the local school districts. Thus, the proposed Project would not cause a new or substantially more severe impact on schools than was evaluated in the 2005 EIR.

15-d) The Final EIR identified Impact 5.8-14 (New Open Space Maintenance) and Impact 5.8-15 (Increased Use of Existing Recreational Facilities) as less-than-significant impacts, and no mitigation was required. As previously noted, the Final EIR Second Amendment did not address public services impacts, including park impacts.

Park services in the Project area are provided by the Marinwood Community Services District (Marinwood CSD). The main portion of the District's service area extends north of Lucas Valley Road to the Pacheco Valle Preserve and west of U.S. Highway 101 to near Huckleberry Road. Within its service area, the Marinwood CSD has preserved 812 acres of

---

78 School Facility Consultants, *School Facility Fee Justification Report for Residential, Commercial & Industrial Development Projects, for the San Rafael City High School District*, Table 1-8, Student Generation Rates, March 2014.

79 Doug Marquand, Assistant Superintendent of Business Services, San Rafael High School District/San Rafael City Schools, personal communication, December 27, 2017.

80 Ginny Pheatt, Assistant to Business Manager/Classified Personnel, Dixie School District, personal communication, January 10, 2018.

permanent open space, up from the 760.74 acres reported in the Final EIR. It maintains three public parks, including Marinwood Park, Las Gallinas Park, and Creekside Park, which is about 1.7 miles west of the main service area.

The Final EIR reported that the project applicant proposed to dedicate 69.1 acres of the project site as permanent open space to either the Marinwood CSD or the Marin County Open Space District, though 10 acres was expected to be set aside for the Highway 101/Lucas Valley Road interchange, which would reduce the acreage dedicated to open space. The dedication was subsequently made to the Marinwood CSD, which now has responsibility for managing this open space.[81]

Following a special district election in November 2015, the Marinwood CSD adopted an ordinance that changed its park assessment fee from a per-parcel assessment to a per-unit assessment on residential development. Ordinance No. 2015-01 established a special tax to provide park, open space, and street landscape maintenance services within the District, set at $189.56 per residential unit. The fee is subject to annual Consumer Price Index (CPI) adjustments; it is currently $196.16 per unit for the 2017-2018 fiscal year.[82] This fee would apply to the six affordable apartments, but would not be assessed on the proposed senior living apartments. With payment of this fee, the proposed Project's potential impacts on park and recreational services and facilities would be less than significant. The proposed Project would not cause a new or substantially more severe impact on park and recreational services and facilities than was evaluated in the 2005 EIR.

15-e) The Final EIR did not identify any impacts on other public facilities, other than those discussed in Checklist Items 15-a through 15-e, above, nor did the Final EIR Second Amendment. While implementation of the current Project could generate additional demand for other public facilities, such as libraries, such demand would represent a minor incremental increase over existing demand, and would not be expected to require the construction of new or expanded facilities whose construction could adversely affect the environment. Therefore, the proposed Project would not cause a new or substantially more severe impact on other public facilities than was evaluated in the 2005 EIR.

2005 EIR Mitigation Measures

The 2005 EIR identified one mitigation measure to reduce identified public services impacts, which was adopted and made a condition of project approval. Previously adopted Mitigation Measure 5.8-2 would continue to apply to the proposed Project.

Mitigation Measure 5.8-2 (Condition of Approval No. 46): The following measures would be required to reduce the potential impacts of wildland fires:

---

81 Eric Dreikosen, District Manager, Marinwood Community Services District, personal communication, January 8, 2018.

82 *Ibid*.

- The Fire Management Plan should include both a Vegetation Modification Plan (to ensure that a minimum defensible space—30 to 100 feet depending on specific site conditions—would be provided by reducing flammable vegetation and fuel load) and a Vegetation Maintenance Plan (to describe the on-going annual vegetative maintenance program). The annual Vegetation Maintenance Plan reports would address the site's fire hazards based on fuel load, slope, aspect, topography, and other factors and should determine priority problem areas on the site where fire safety measures should be emphasized. Approval of the Fire Management Plan by the MFD would be required before construction, and implementation would be required prior to framing. Because the Master Plan does not yet describe long-term site maintenance aspects of the project (such as establishment of a homeowners' association or equivalent organization composed of all the site's residential, office, and open space landowners), the Vegetation Maintenance Plan should establish a mechanism and identify who would be responsible for implementing all elements of the Plan.

  The MFD has materials and guidelines to prepare mitigation plans for defensible space. New plantings of trees and vegetation with a high fire risk (such as Bishop Pine [*Pinus muricata*], Tan Oak [*Lithocarpus densiflorus*], California Bay [*Umbellularia californica*], and Coyote Brush [*Bacharis pilularis*]) should be prohibited within the defensible space zone of buildings. Existing trees with a high fire risk within the defensible space zone of buildings (such as California Bay) could be retained with permission of the MFD and would require special consideration in the Vegetation Management Plans, as described below. Resistant plantings should be encouraged (such as Coast Live Oak [*Quercus agrifolia*], Pacific Wax Myrtle [*Myrica californica*], California Lilac [*Ceanothus* spp.], and Toyon [*Heteromeles arbutifolia*]), all of which are included in the Conceptual Landscape Plan.

- Implement fire prevention measures during construction. The applicant and individual residential or office developers should be responsible for implementing the measures which should include (but not be limited to) the following:

  - Installing all project roadway and water requirements before any residential sidewall construction on the site, consistent with Section 10.502 of the Uniform Fire Code.
  - Clearing brush and other potential fire fuel around construction areas.
  - Maintaining and clearly marking on-site fire response equipment (such as fire extinguishers, fire retardant blankets, shovels, buckets, etc.) at each construction area.
  - Ensuring that all construction workers are trained to use on-site fire response equipment and workplace safety measures.
  - Locating and clearly identifying a cellular phone or other communication device on-site at all times during construction.

Conclusion

With application of Mitigation Measure 5.8-2, which was adopted as Condition of Approval No. 46, Implementation of the proposed Project would not result in any new or substantially more severe significant impacts to public services than those previously evaluated in the 2005 EIR.

16. Recreation

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
16. Recreation.					
a. Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Final EIR, pgs. 5.8-15 to 5.8-17	No	No	No	n/a
b. Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Final EIR, pg. 5.8-16	No	No	No	n/a

Discussion

16-a) Other than Impact 5.8-15 (Increased Use of Existing Recreational Facilities), discussed above in Checklist Item 15-d, the Final EIR did not identify impacts to regional parks or recreational facilities, and the Final EIR Second Amendment did not identify any new or substantially more severe impacts than were disclosed in the Final EIR.

The proposed Project would be expected to generate less demand for regional parks or other recreational facilities than was considered in the 2005 EIR. The Project no longer includes development of 28 single-family homes (and the property for the homes has been conveyed to permanent open space), and it would have fewer senior apartments than the project evaluated in the Final EIR Second Amendment. As noted in Checklist Item 15-d, the Marinwood CSD determined that the Project's payment of the District's park assessment fee, the proposed Project's potential impacts on park and recreational services and facilities would be less than significant. Any additional incremental use of other regional recreational facilities that would be generated by the Project would not have the potential to cause substantial physical deterioration of the facility. The proposed

Project would have a less-than-significant impact on regional parks and other recreational facilities; it would not cause a new or substantially more severe impact on neighborhood and regional parks than was evaluated in the 2005 EIR.

16-b) The project evaluated in the Final EIR included the dedication of 69.1 acres of the project site as permanent open space to either the Marinwood CSD or the Marin County Open Space District (it was eventually deeded to the Marinwood CSD), but it did not include development of other recreational facilities. The Final EIR determined that this open space dedication would add to the Marinwood CSD's maintenance costs, but concluded that this would be a less-than-significant impact (Impact 5.8-14 – New Open Space Maintenance), and no mitigation was required. The Final EIR Second Amendment did not identify any new or more severe park or recreational facilities impacts.

The current Project would provide new recreational facilities in the main building, including a fitness center, games room, and activity areas. The outdoor courtyards and on-site pathways would provide additional recreational opportunities for Project residents. The potential environmental impacts that could result from construction of these facilities have been included in the overall analysis of the proposed Project that is summarized in this Addendum. The proposed Project would not substantially increase the severity of Final 5.8-14, which would remain less than significant. Because construction of the proposed Project would not result in new or substantially more severe significant impacts than were already addressed in the 2005 EIR, construction of the proposed recreational facilities would also not result in new or substantially more severe significant impacts than were already addressed in the 2005 EIR.

2005 EIR Mitigation Measures

No significant impacts on recreational facilities were identified in the 2005 EIR; therefore, no mitigation measures were required. Because the current Project would not cause a significant impact on recreational facilities, it would not require any new mitigation measures.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe significant impacts to recreation than those previously evaluated in the 2005 EIR.

17. Transportation/Traffic

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
17. Transportation/Traffic. Would the Project:					
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ration on roads, or congestion at intersections)?	Final EIR, pgs. 5.5-4 to 5.5-37 and 7.0-10 to 7.0-23; Final EIR Second Amendment, pgs. 12-17	No	No	Yes	Yes
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	Final EIR, pgs. 5.5-4 to 5.5-10, 5.5-12 to 5.5-17, 5.5-31 to 5.5-37, and 7.0-14 to 7.0-23	No	No	Yes	Yes
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	n/a	No	No	No	n/a
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Final EIR, pg. 5.5-37	No	No	No	n/a
e. Result in inadequate emergency access?	Final EIR, pgs. 5.8-5 to 5.8-6	No	No	No	n/a
f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	Final EIR, pg. 5.5-38	No	No	No	n/a

Discussion

17-a) The Final EIR evaluated potential future traffic and transportation impacts under three analysis scenarios: Existing Plus Project, Short-Range Cumulative Plus Project, and Long-Range Cumulative Plus Project. The short-range cumulative scenario included other projects in the general area that were already approved, while the long-range cumulative

scenario was based on projections contained in the most recent Marin County Congestion Management Agency (CMA) forecasts, which included growth projections for the City of San Rafael and the surrounding unincorporated region. The short-range forecasts assumed signalization of the intersection of Lucas Valley Road and Miller Creek Road (since completed). The long-range forecasts assumed a variety of improvements to U.S. Highway 101 in the project area, including the addition of high-occupancy vehicle (HOV) lanes, interchange ramp improvements and additions, and construction of new lanes along certain segments. The long-range scenario compared 1999 traffic conditions to projected 2020 conditions. The Final EIR evaluated potential project impacts at the following nine study intersections:

1. Highway 101 Northbound Ramp / Miller Creek Road
2. Highway 101 Southbound Ramp / Miller Creek Road
3. Miller Creek Road / Marinwood Avenue
4. Miller Creek Road / Las Gallinas Avenue
5. Lucas Valley Road / Miller Creek Road
6. Lucas Valley Road / Las Gallinas Avenue
7. Lucas Valley Road / Los Gamos Drive[83]
8. Highway 101 Southbound Ramp / Lucas Valley Road
9. Highway 101 Northbound Ramp / Smith Ranch Road

During then-existing AM peak-hour conditions, a number of these intersections operated unacceptably, with a Level of Service (LOS) of LOS E or LOS F, including Lucas Valley Road / Miller Creek Road, Highway 101 Southbound Ramp / Miller Creek Road, Miller Creek Road / Marinwood Avenue, Lucas Valley Road / Los Gamos Drive. When the planned signalization of the Lucas Valley Road / Miller Creek Road intersection was factored in, the intersection operated acceptably at LOS B. All of the study intersections operated at LOS C or better during the PM peak hour except the intersection of Lucas Valley Road / Los Gamos Drive, which operated at LOS E.

The traffic analysis also evaluated operating conditions on the following three segments of U.S. Highway 101:

- North of the Miller Creek Road Interchange;
- Between Miller Creek Road and Lucas Valley Road; and
- South of the Lucas Valley Road Interchange.

[83] The Final EIR referred to this roadway as Los Gamos Drive, while the more recent traffic study identifies it as Los Gamos Drive, which is how it is identified on Google Earth. For consistency and clarity, all references to the road in this discussion have been standardized as "Los Gamos Drive."

All three of these freeway segments operated unacceptably at LOS F during the AM peak hour and at LOS E during the PM peak hour, based on CMA Base Year 1999 forecasts.

Final EIR Proposed Project

The project evaluated in the Final EIR consisted of 28 single-family homes and 94,000 square feet of office development.[84] However, the Responses to Comments in the Final EIR also evaluated an assisted living option, which is more pertinent to the current environmental review. The details of the Final EIR traffic analysis of the assisted living option are discussed below.

Final EIR Optional Project

In the Responses to Comments on the Revised 1996 Draft EIR, a master response was presented that evaluated the potential traffic impacts of an assisted living option to the project. Master Response A analyzed the use of Buildings A and B with the same footprints as under the proposed office development, but with 75 independent living apartments and 75 assisted living apartments, along with administrative and support services. This project option resulted in an estimated project trip generation of 414 daily vehicle trips for the senior housing component and 321 daily trips for the single-family housing component. The total of 735 daily trips included 55 AM peak-hour trips and 75 PM peak-hour trips.

The analysis of the assisted living option found significant impacts under Existing Plus Assisted Living Use Option during the AM peak hour at the Lucas Valley Road / Los Gamos Drive, Miller Creek Road / Marinwood Avenue, and Highway 101 Southbound Ramp / Miller Creek Road intersections, similar to the proposed office use, though with less delay at the first two intersections (Impact 7.0-1 – Existing Plus Assisted Living Use Option AM and PM Peak Hour Conditions). The Lucas Valley Road / Los Gamos Drive intersection would also operate unacceptably during the PM peak hour under this scenario. Master Response A identified Mitigation Measures 7.0-1(a), 7.0-1(b), and 7.0-1(c) to reduce the impacts to a less-than-significant level; these previously adopted measures corresponded to Mitigation Measures 5-5.1(a), 5-5.1(b), and 5-5.1(c), respectively, from the traffic impact analysis of the then-proposed project with the office use.

Under Short-Range Cumulative Plus Project conditions, similar to the proposed project with office use, Master Response A identified a significant impact at the Lucas Valley Road / Los Gamos Drive, Miller Creek Road / Marinwood Avenue, and Highway 101 Southbound Ramp / Miller Creek Road intersections during the AM peak hour, with the first intersection also operating unacceptably during the PM peak hour. Master Response A identified previously adopted Mitigation Measures 7.0-2(a), 7.0-2(b), and 7.0-2(c) to

[84] The Project Description of the Final EIR defined the office component of the project as one building with 80,000 square feet of space and a second building with 14,400 square feet, for a total of 94,400 square feet of office development. However, in the discussion on Project Trip Generation on page 5.5-17 stated that the trip generation was based on 94,000 square feet of office development.

reduce the impacts to a less-than-significant level; these measures corresponded to Mitigation Measures 5-5.2(a), 5-5.2(b), and 5-5.2(c), respectively, from the traffic impact analysis of the then-proposed project with the office use.

The results for Long-Range Cumulative Plus Project conditions were also similar to those for the office development: significant AM peak hour impacts at Miller Creek Road / Marinwood Avenue, Miller Creek Road / Las Gallinas Avenue, and both Highway 101 intersections at Miller Creek Road; the Highway 101 intersections would also operate unacceptably during the PM peak hour. At the Miller Creek Road / Las Gallinas Avenue intersection, the addition of traffic from the assisted living option caused the intersection to degrade to LOS F, whereas the intersection would operate (still unacceptably) at LOS E with the addition of traffic from the proposed office development. Master Response A identified Mitigation Measures 7.0-3(a), 7.0-3(b), and 7.0-3(c) to reduce the impacts to a less-than-significant level, corresponding to Mitigation Measures 5-5.3(a), 5-5.3(b), and 5-5.3(c), respectively, from the traffic impact analysis of the then-proposed project with the office use. Previously adopted Mitigation Measure 7.0-3(d) was identified for the impact to the Miller Creek Road / Las Gallinas Avenue intersection, requiring the applicant to pay a fair-share contribution toward signalization of the intersection. Previously adopted Mitigation Measure 7.0-3(e) required the applicant to pay a fair-share contribution toward signalization of the Highway 101 Northbound Ramp / Miller Creek Road intersection.

The mitigation measures from Master Response A were the measures adopted by the County when the EIR was certified in January 2005, with two exceptions: 1) in lieu of signalization of the Lucas Valley Road / Los Gamos Drive intersection (Mitigation Measures 7.0-1(b), 7.0-2(b), and 7.0-3(b)), the applicant was allowed to make a voluntary dedication of the approximately 9.4-acre future highway interchange area that is located at the Highway 101 / Lucas Valley Road interchange; and 2) the final version of Mitigation Measure 7.0-3(e) required signalization of the intersection, but did not stipulate that the applicant pay a fair-share contribution toward signalization.

Final EIR Second Amendment

The Final EIR Second Amendment documented an updated traffic analysis to the one presented in the Final EIR. It examined a project change intended to reduce the significant impact to the Lucas Valley Road / Los Gamos Drive intersection identified in the Final EIR. The proposed change eliminated the direct access to Lucas Valley Road for some of the single-family residential lots, resulting in all 28 housing units having access from Las Gallinas Avenue via Erin Drive. Although the updated traffic analysis described in the Final EIR Second Amendment did not evaluate the primary project change, which replaced all of the previously proposed office development with 150 senior apartments, this analysis was provided in Master Response A of the Final EIR, discussed above. The Final EIR Second Amendment concluded that the proposed access change would not result in any new significant impacts nor would it require any changes to the traffic mitigation measures identified in the Final EIR.

2017 Traffic Impact Analysis

A new traffic impact analysis was performed in 2017 for the currently proposed Project by the traffic engineering firm W-Trans to determine whether the Project would result in any new or substantially more severe significant traffic impacts than were disclosed in the 2005 EIR.[85] Although the 28 single-family homes that were included in the approved Master Plan are not part of the current Project, they were included in the recent 2017 traffic study; consequently, the traffic study exaggerates the project-specific potential traffic impacts of the Project. However, these homes are expected to be developed as a separate project, so the traffic they would generate is appropriately reflected in the future cumulative scenarios evaluated. The other Project components assumed in the traffic study, i.e., 126 senior living apartments and six affordable apartments, are part of the currently proposed Project.

Because the current Project would generate so much less traffic than the office version of the project evaluated in the Final EIR, it was determined that evaluation of all of the original nine study intersections was not warranted. Furthermore, with the single-family homes no longer part of the Project, Project traffic is not expected to utilize Lucas Valley Road, so all but one of the intersections along Lucas Valley Road were eliminated as relevant study intersections from the 2017 traffic study. (Although all nine original study intersections were evaluated for the senior living option discussed in Master Response A of the Final EIR, this was warranted because the single-family homes were still part of that project alternative, the Mitigation Alternative.) Accordingly, the W-Trans study evaluated potential Project AM and PM peak-period traffic impacts at five of the nine study intersections from the Final EIR, including:

1. Highway 101 Northbound Ramp / Miller Creek Road
2. Highway 101 Southbound Ramp / Miller Creek Road
3. Miller Creek Road / Marinwood Avenue
4. Miller Creek Road / Las Gallinas Avenue
5. Lucas Valley Road / Los Gamos Drive

The 2017 traffic analysis examined traffic conditions under the following six operating scenarios:

- **Existing Conditions**, based on traffic volume data collected on December 1, 2015 while local schools were in session;
- **Existing Plus Project Conditions**, adding Project-generated traffic to Existing Conditions;
- **Baseline Conditions**, based on near-term traffic conditions that included existing traffic volumes and the volumes from the Final EIR. Baseline volumes were

[85] W-Trans, *Traffic Impact Study for The Oaks Project*, June 5, 2017.

compared to more recent volumes for the Miller Creek Road intersections, which were lower than the volumes reported in the Final EIR, in part because the Marinwood Shopping Center was not at full occupancy at the time of the most recent traffic counts but was at full occupancy when the Final EIR counts were conducted.

- **Baseline Plus Project Conditions**, adding Project-generated traffic to Baseline Conditions;
- **Future Conditions**, derived from the growth rate reflected in the comparison between the 2002 counts and the 2015 counts of Miller Creek Road traffic volumes (0.4 percent per year for the eastbound direction, 0.1 percent per year for the westbound direction) and, based on this, conservatively projecting a 0.5-percent annual growth rate at the study intersections through 2035, which resulted in 10.5 percent growth over 20 years. It is assumed that traffic generated by the potential future reoccupation of the Marinwood Shopping Center on Marinwood Avenue would be captured in this growth rate;
- **Future Plus Project Conditions**, adding Project-generated traffic to Future Conditions.

The traffic analysis determined that the proposed Project would generate a total of 682 daily traffic trips, including 415 trips from the senior living and affordable apartments and 267 trips from the formerly proposed single-family homes. This would result in 29 AM peak-hour trips (13 for the Project and 16 for the single-family homes) and 27 PM peak-hour trips (17 for the Project and 10 for the single-family homes). This compares to 735 daily trips for the project evaluated in Master Response A of the Final EIR, including 414 trips generated by the assisted living development and 321 trips generated by the residential development. The project evaluated in Master Response A would generate 55 AM peak-hour trips (26 for the assisted living development and 29 for the single-family homes) and 75 PM peak-hour trips (41 for the assisted living development and 34 for the formerly proposed single-family homes).

Trip distribution in the W-Trans study was similar to that assumed in Master Response A of the Final EIR. It assumed 75 percent of the residential trips would be distributed south on Highway 101 and 15 percent would be distributed north, with 5 percent distributed to/from Las Gallinas Avenue and 5 percent distributed to/from Miller Creek Road. The distribution of trips from the senior living apartments assumed that 50 percent of them would travel (to/from) south on Highway 101, 40 percent would travel (to/from) north on Highway 101, 5 percent would travel (to/from) south on Las Gallinas Road, and 5 percent would travel (to/from) west on Miller Creek Road.

Comparison of Project Traffic Impacts to the Final EIR Analysis[86]

Under Existing Plus Project conditions, the W-Trans traffic study found that all study intersections would operate acceptably with the exception of the Miller Creek Road / Marinwood Avenue intersection, which would operate at LOS E during the AM peak hour. The EIR stated that the intersection already operates unacceptably at LOS E under Existing Conditions; the Project would increase delay at the intersection from 45.2 seconds to 47.2 seconds. The Final EIR also identified significant impacts at the Lucas Valley Road / Los Gamos Drive, Miller Creek Road / Marinwood Avenue, and Highway 101 Southbound Ramp / Miller Creek Road intersections, but under the current Project, impacts at these intersections would be less than significant.

As previously noted, the Final EIR found a significant impact of the project at the Miller Creek Road / Marinwood Avenue intersection during the AM peak hour under Existing Plus Project conditions, and concluded that signalization of the intersection (previously adopted Mitigation Measure 7.0-1(a)) would reduce the impact to a less-than-significant level. While Mitigation Measure 7.0-1(a) allocated the entire cost of signalization to the project applicant, the 2017 W-Trans analysis of the current Project found that the Project would have a substantially lessened impact in comparison to the previous project. The W-Trans report contends that that allocating the entire cost of signalization to the Project would not be reasonable. Accordingly, revised mitigation is recommended to require the Project applicant to pay a proportional share (fair share) toward the intersection improvement..

The Miller Creek Road / Marinwood Avenue and the Miller Creek Road / Las Gallinas Avenue intersections would both operate unacceptably at LOS F during the AM peak hour under both the Baseline scenario and the Baseline Plus Project scenario. Delay would be greater than 120 seconds under both scenarios at both intersections. They would both operate at LOS B during the PM peak hour, with Project traffic adding a maximum of 0.2 seconds to delay. In addition, the Highway 101 Southbound Ramp / Miller Creek Road intersection would operate unacceptably at LOS F during the AM peak hour under both the Baseline scenario and the Baseline Plus Project scenario. Project traffic would increase delay from 58.1 seconds to 61.0 seconds, resulting in a significant cumulative impact.

These impacts would not be new significant impacts. The Final EIR found a significant impact at the Highway 101 Southbound Ramp / Miller Creek Road intersection under short-range cumulative conditions during the AM peak hour (Impact 5.5-2), and identified a significant impact at the Miller Creek Road / Las Gallinas Avenue intersection under long-range cumulative conditions during the AM peak hour (Impact 5.5-3). Signalization of

[86] To minimize confusion, the references in this discussion to impacts and mitigation measures pertain to those identified in Section 5.5 of the Final EIR, which presented the majority of the traffic impact analysis for the then-proposed project. The corresponding mitigation measures presented at the end of this Environmental Checklist Section 17 reflect the final mitigation measures that were adopted, including number changes that were adopted when the 2005 EIR was certified.

the Miller Creek Road / Marinwood Avenue intersection was already required by previously adopted Mitigation Measure 5.5-1(a) for Existing Plus Project conditions. Previously adopted Mitigation Measure 5.5-2(c) required signalization of the Highway 101 Southbound Ramp / Miller Creek Road intersection, and previously adopted Mitigation Measure 5.5-3(d) required signalization of the Miller Creek Road / Las Gallinas Avenue intersection. For the current Project, the W-Trans traffic study finds that signalization of these intersections is still required, and the applicant should pay its a fair share of the cost of the improvements. Previously adopted Mitigation Measures 5.5-2(c) and 5.5-3(d) previously required a fair-share contribution from the applicant, so no changes to these mitigation measures are required, and they would still apply to the proposed Project.

Under Future Plus Project conditions, the 2017 W-Trans traffic study determined that the following study intersections would operate unacceptably at LOS F during the AM peak hour:

- Miller Creek Road / Las Gallinas Avenue
- Miller Creek Road / Marinwood Avenue
- Highway 101 Southbound Ramp / Miller Creek Road
- Lucas Valley Road / Los Gamos Drive

The Final EIR identified significant impacts at all of these intersections under long-range cumulative conditions during the AM peak hour; it also identified significant impacts during the PM peak hour at both the southbound and northbound Highway 101 ramps at Miller Creek Road.

The W-Trans traffic study recommends signalization of these intersections, which was already required by previously adopted Final EIR mitigation measures 5-5.3(a), 5-5.3(b) 5-5.3(c), and 5-5.3(d). W-Trans found that, with the reduced Project size in comparison to the project evaluated in the Final EIR, the intersection of Highway 101 Northbound Ramp / Miller Creek Road would operate acceptably under future conditions with or without the Project, and therefore, implementation of previously adopted Final EIR Mitigation Measure 5-5.3(e), requiring signalization of the intersection, was no longer required.

Under all analysis scenarios, the 2017 traffic impact analysis of the proposed Project conducted by W-Trans found reduced impacts in comparison with the project proposed in the Final EIR as well as in comparison to the optional assisted living project evaluated in Master Response A. Implementation of previously adopted Final EIR Mitigation Measures 5-5.3 and 5-5.3(e) would no longer be required, but implementation of the other traffic previously adopted mitigation measures identified in the 2005 EIR would still be required, with some modifications, as previously noted. Therefore, the proposed Project would not cause any new or substantially more severe significant impacts on traffic than those previously evaluated in the 2005 EIR.

17-b) The analysis summarized above in Checklist Item 17-a was based in part on Marin County's Congestion Management Agency (CMA) traffic model forecasts for 1999 (Base Year) and 2020, which were used to evaluate potential impacts to freeway segment capacity and were also factored into the intersection analysis under Long-Range Future Cumulative Conditions. The CMA highway segments analyzed included Highway 101 South of Lucas Valley Road, Highway 101 North of Lucas Valley Road, and Highway 101 North of Miller Creek Road. Impacts to all CMA highway segments were found to be less than significant under all three analysis scenarios. The optional assisted living project evaluated in Master Response A of the Final EIR also found less-than-significant traffic impacts under all three analysis scenarios. The Final EIR Second Amendment did not explicitly address highway segments, but did not identify any impacts to CMA highway segments.

The 2017 W-Trans traffic impact analysis of the currently proposed Project, did not evaluate CMA highway segments. However, the Final EIR determined that the proposed office and single-family residential project would have minimal impacts on the Highway 101 segments, and the current Project would generate substantially less traffic than the project evaluated in the Final EIR. It can therefore be concluded that the proposed Project would not cause a new or substantially more severe significant impact on road segments and intersections, including CMP roadways, than those previously evaluated in the 2005 EIR.

17-c) The 2005 EIR did not address air traffic. However, the nearest airport to the Project site is the Marin County Airport located at Gnoss Field, located approximately 7.7 miles north of the site. The proposed Project would have no effect on air traffic patterns or levels.

17-d) The Final EIR identified a less-than-significant traffic hazard impact related to the stopping sight distance at the Lucas Valley Road access to 20 of the proposed single-family homes (Impact 5.5-8 – Stopping Sight Distance). There was more than 600 feet of stopping sight distance at the entrance in either direction on Lucas Valley Road, exceeding American Association of State Highway and Transportation Officials (AASHTO) recommendations of 400 to 475 feet of stopping sight distance on wet pavement. No traffic safety hazards were identified in the Final EIR Second Amendment.

Impact 5.5-8 would not apply to the current Project, and no traffic safety hazards were identified in the 2017 W-Trans traffic impact analysis of the proposed Project. The Project would not cause any new impacts on traffic safety.

17-e) The 2005 EIR did not identify any significant impacts due to inadequate emergency access; Final EIR Impact 5.8-3 determined that access roads to the project would meet the County's width and gradient requirements for emergency access, with no mitigation required. The Final EIR Second Amendment did not identify any new impacts related to emergency access. The 2017 W-Trans traffic impact analysis of the proposed Project did not identify any new or more severe impacts related to emergency access. As discussed in more detail in Item 15-a, above, based on preliminary review of the proposed Project, the San Rafael Fire Department has expressed concerns about adequate fire access to the

proposed Project. These concerns can be addressed during the plan check process, which requires the sign-off from the responsible fire departments. Therefore, the proposed Project would not substantially increase the severity or cause a new significant impact related to inadequate emergency access than was previously addressed in the 2005 EIR.

17-f) The Final EIR identified Impact 5.5-4 (Transit Impacts) as a less-than-significant impact, finding that the moderate number of transit trips that would be generated by the project would not adversely affect public transit. No other impacts related to alternative modes of transportation were identified, and no conflicts with adopted policies, plans, or programs supporting alternative transportation were identified. The Final EIR Second Amendment did not discuss alternative modes of transportation. The 2017 W-Trans traffic impact analysis of the proposed Project did not identify any new or more severe impacts related to alternative modes of transportation or to plans or policies supporting alternative modes of transportation. The proposed Project would therefore not substantially increase the severity of an existing significant impact or cause any new significant impacts on alternative transportation modes.

2005 EIR Mitigation Measures

The 2005 EIR identified 13 mitigation measures to reduce identified traffic impacts, which were adopted and made conditions of project approval. The following previously adopted mitigation measures from the Final EIR would continue to apply to the proposed Project: 7.0-1, 7.0-1(c), 7.0-2(a), 7.0-2(c), 7.0-3(a), and 7.0-3(c). Additional mitigation measures, with revisions, are listed in the following section. Mitigation measures 7.0-1(b), 7.0-2(b), 7.0-3, 7.0-3(b), and 7.0-3(e) would no longer be required.

Mitigation Measure 7.0-1 (Condition of Approval No. 47): The following mitigations would be required to reduce existing plus project AM and PM peak hour conditions to a less-than-significant level.

Mitigation Measure 7.0-1(c): Highway 101 Southbound Ramps / Miller Creek Road. Signalization is the recommended mitigation measure at this intersection. The applicant should pay its fair share toward this improvement.

Mitigation Measures 7.0-2(a) through 7.0-2(c): The recommended improvements for Miller Creek Road / Marinwood Avenue, Lucas Valley Road / Los Gamos Road, and Highway 101 Southbound Ramps / Miller Creek Road are the same as recommended for Impact 7.0-1. [Note: Mitigation Measures 7.0-1(b)/7.0-2(b) are not applicable to the current Project, and were not adopted as conditions of approval of the Master Plan.]

Mitigation Measure 7.0-3(a): Miller Creek Road / Marinwood Avenue. Same mitigation measure as 7.0-1(a).

Mitigation Measure 7.0-3(c): Highway 101 Southbound Ramps / Miller Creek Road. Same as mitigation measure 7.0-1(c).

The 2017 traffic analysis did not find any new significant impacts or a substantial increase in the magnitude of significant impacts previously identified in the 2005 EIR; therefore, no new mitigation measures were required. The previously adopted mitigation measures listed above would continue to apply to the proposed Project.

Revised Mitigation Measures

The following mitigation measures, 7.0-1(a) and 7.0-3(d), are revised and renumbered versions of those presented in the 2005 EIR. New or revised text is underlined and deleted text is shown in ~~strikethrough~~. In order to retain coherence, multi-part mitigation measures with new or revised text, as well as unchanged text, are presented together in this section rather than splitting them up with unchanged text above and revised text below.

Mitigation Measure 7.0-1(a): Miller Creek Road / Marinwood Avenue. The recommended mitigation measure at this intersection is the installation of a traffic signal. ~~The applicant should fund this improvement.~~ Prior to issuance of a grading permit, the applicant shall pay the Project's 1.5-percent proportional share of this improvement, estimated to be $7,440.

Mitigation Measure 7.0-3(d): Miller Creek Road / Las Gallinas Avenue. The recommended mitigation measure at this intersection is the installation of a traffic signal. Prior to issuance of a grading permit, the applicant shall pay the Project's 2.1-percent proportional share of this improvement, estimated to be $10,615.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe traffic and transportation impacts than those previously evaluated in the 2005 EIR.

18. Utilities and Service Systems

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
18. Utilities and Service Systems. Would the Project:					
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Final EIR, pg. 5.8-12	No	No	No	n/a
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Final EIR, pgs. 5.8-9 to 5.8-13	No	No	No	n/a
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Final EIR, pgs. 5.2-13 to 5/2-24; Final EIR Second Amendment, pgs. 7–8	No	No	Yes	Yes
d. Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	Final EIR, pgs. 5.8-9 to 5.8-10	No	No	No	n/a
e. Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's Projected demand in addition to the provider's existing commitments?	Final EIR, pgs. 5.8-11 to 5.8-13	No	No	No	n/a
f. Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?	Final EIR, pgs. 4.0-15 and 4.0-20	No	No	No	n/a
g. Comply with federal, state, and local statutes and regulations related to solid waste?	n/a	No	No	No	n/a

Discussion

18-a) Other than listing a violation of the wastewater treatment requirements of the applicable Regional Water Quality Control Board in the significance criteria, the Final EIR did not explicitly address this issue. However, as discussed in Checklist Items 18-b and 18-e, below, the Final EIR determined that the project would have a less-than-significant wastewater impact, and no mitigation was required. The Final EIR Second Amendment did not identify a wastewater treatment impact. Therefore, it may be assumed that the project evaluated in the Final EIR did not have the potential to exceed wastewater treatment requirements. In evaluating the Mitigation Alternative, the Final EIR Second Amendment did not identify an impact related to an exceedance of wastewater treatment requirements, so it may also be assumed that the senior housing project analyzed in the Final EIR Second Amendment also had no impact on wastewater treatment requirements. The current Project would provide fewer senior apartments than were evaluated in the Final EIR Second Amendment and would have no single-family residential development. Therefore, there are no aspects of the current Project with the potential to result in greater demand for wastewater treatment than was previously evaluated in the 2005 EIR, and the impact would remain less than significant.

18-b) The Final EIR identified Impact 5.8-10 (Sanitary Sewer Service Impacts) and Impact 5.8-11 (Cumulative Sanitary Sewer Service Impacts) as less-than-significant project and cumulative impacts, respectively, on wastewater treatment capacity. Wastewater collection and treatment would be provided to the Project by the Las Gallinas Valley Sanitation District (LGVSD). The Final EIR reported that its treatment plant, located at 300 Smith Ranch Road in the City of San Rafael, had a dry-weather design capacity of 2.92 million gallons per day (mgd), and this remains unchanged in 2018. The Final EIR Second Amendment did not identify a wastewater treatment impact.

Several attempts were made during preparation of this Addendum to obtain updated capacity information from the LGVSD. Although the District did not provide updated information, it indicated that it would have available capacity to serve the proposed Project.[87] Furthermore, the District has a history of constructing treatment plant expansions when necessary to meet increased demand when warranted. In order to obtain a connection from LGVSD, the Project engineer will need to demonstrate that on-site sewer facilities are adequate to accommodate the Project's anticipated wastewater flows. This would be confirmed during the District's permitting process for establishing a new sewer connection. The Project is consistent with the project evaluated in the 2005 EIR, and there are no aspects of the Project with the potential to create new or substantially more severe significant impacts on wastewater treatment facilities and services than were disclosed in the 2005 EIR.

---

87 Irene Huang, PE, Assistant Engineer, Las Gallinas Valley Sanitation District, personal communication, January 11, 2018.

The Final EIR also identified two less-than-significant project-level and cumulative impacts, respectively, on water treatment and distribution facilities: Impact 5.8-7 (Water Service Impacts) and Impact 5.8-9 (Cumulative Water Service Impacts). Impact 5.8-7 found that the Marin Municipal Water District (MMWD), which would provide water treatment and distribution to the project site, would be able to provide water service to an elevation of 210 feet, and all project development would be below this elevation. The Final EIR Second Amendment did not identify a water service impact. With a maximum first-floor elevation of 97 feet above mean sea level, the current Project would be well within the service elevation of the MMWD. Therefore, implementation of the proposed Project would not result in a new significant impact related to the provision of water service to the site.

The Final EIR reported that the MMWD has six storage reservoirs in the County, two water treatment plants, a variety of storage tanks, and a network of distribution pipes and pumps. Currently, the District has three treatment plants and seven reservoirs, two of which are located in western Marin County, outside the MMWD service area.[88] It has 127 storage tanks with a combined capacity of 81.9 million gallons.

The Final EIR did not identify a constraint in the MMWD's water treatment capacity, nor did the Final EIR Second Amendment identify a water treatment capacity impact. Current combined design capacity of the District's three treatment plants is 71 mgd, with an observed capacity of 58 mgd. In 2015 the MMWD produced an average of 20 mgd of treated potable water.[89] Therefore, based on the MMWD's available water treatment capacity, there is more than adequate water treatment capacity to serve the proposed Project. The Project would have a less-than-significant impact on water treatment capacity.

18-c) The potential impacts related to adequacy of stormwater drainage systems are addressed in Checklist Item 10-d.

18-d) Final EIR Impact 5.8-8 (Increased Water Demands) estimated that the project would result in an increased water demand of approximately 20 acre-feet (AF) of water per year.[90] Because development of the site had been accounted for in MMWD's water supply and demand projections, the EIR concluded that there would be adequate water supplies to serve the project, and found Impact 5.8-8 to be less than significant, with no mitigation required.

The Final EIR reported that the MMWD's water sources included rainfall and some water from the Russian River, purchased from the Sonoma County Water Agency (SCWA), which is still the case today. Groundwater use is limited to small private wells. The MMWD has

88 Marin Municipal Water District, *Urban Water Management Plan 2015 Update*, Section 3.0, System Description, June 2016.

89 *Ibid*.

90 An acre-foot is the amount of water necessary to cover 1 acre of land to a depth of 1 foot, and is equivalent to 325,851.43 gallons, or 43,560 cubic feet.

contractual entitlements to 14,300 acre-feet per year (AFY) from the SCWA, subject to delivery capacity constraints and seasonal limitations. The District projects that its use of imported SCWA will be 8,460 AFY in 2020, rising to 10,000 AFY in 2030, and remaining at this level until the water supply contract expires in 2040.[91] (The contract has renewal options.) The MMWD's projected use is thus well within the available supply.

The District has an operational safe yield of surface water collected from Marin County drainage basins of 20,000 AFY, but has a Reasonably Available Volume of 141,970 AFY in 2020.[92] Recycled water provides an additional 520 AFY of reliable supply. State law requires water agencies in California serving more than 3,000 customers or supplying more than 3,000 AFY of water to prepare an Urban Water Management Plan (UWMP) every five years that evaluates water supplies and demand under normal rainfall and drought conditions. The latest UWMP prepared by the MMWD in 2015, which provides projections in five-year increments through 2040, found that the District would have more than sufficient supplies to meet demand in all projected years during normal rainfall years, single dry years, and multiple dry years.[93] In the worst-case scenario, in the third year of a multi-year drought in 2020, the MMWD projects a supply of 60,442 AF, with demand of 41,940 AF, leaving 18,502 AF of surplus supply. All other modeled years in all scenarios would have a greater amount of surplus supply.

The proposed Project is consistent with the project evaluated in the 2005 EIR. It would have fewer senior apartments than were previously evaluated, and therefore would have an incrementally lower water demand than was projected for the prior project. The preceding information on water supply demonstrates that there would be more than adequate water supply to meet the demand that would be created by the proposed Project. Therefore, the proposed Project would not result in a new or substantially more severe impact on water supply than was previously disclosed in the 2005 EIR.

18-e) The potential impacts related to adequacy of wastewater treatment capacity are addressed above in Checklist Item 18-b.

18-f) The Final EIR determined that the project would be consistent with the coordination of public services, including solid waste disposal capacity; it found the project consistent with *Marin Countywide Plan* Policy EQ-3.10 (Coordination with Public Services) and Policy CD-7.3 (Growth Management and Financial Responsibility). The Final EIR Second Amendment did not discuss solid waste impacts.

There is currently more than adequate solid waste disposal capacity in Marin County to accommodate waste from the proposed Project. Using on a solid waste calculator published

---

91 Marin Municipal Water District, *op. cit.*, Table 6-1, Wholesale Supplies – Existing and Planned Sources of Water (AFY).

92 Marin Municipal Water District, *op. cit.*, Table 6-11, Water Supplies – Projected (AFY) (DWR Table 6-9).

93 Marin Municipal Water District, *op. cit.*, Tables 7-4, 7-5, and 7-6.

by the City of Santa Barbara, based a senior living facility land use, it is estimated that the 138 bedrooms (including the affordable apartments, and factoring in the two-bedroom senior units) would generate approximately 894 cubic yards (apx. 181.8 tons) of solid waste per year, as well as about 502 cubic yards of recyclables (apx. 50.5 tons).[94] Solid waste generated in Marin County is disposed of at the Redwood Landfill in Novato. The California Department of Resources Recycling and Recovery (CalRecycle), which administers the State's recycling and solid waste management programs, reports that Marin County currently has annual disposal capacity of approximately 1,050,000 tons, with annual disposal of approximately 300,000 tons of waste, demonstrating substantial available capacity.[95]

CalRecycle's Solid Waste Information System (SWIS) reports that as of December 18, 2008, Redwood Landfill had remaining disposal capacity of 26 million cubic yards.[96] CalRecycle's projections through 2025 of the County's remaining lifetime landfill capacity indicate ongoing available capacity through this projection period.[97]

Based on the above information, the Project would have a less-than-significant impact on solid waste disposal capacity.

18-g) Neither the Final EIR nor the Final EIR Second Amendment explicitly addressed regulations related to solid waste. However, Redwood Landfill, which would receive solid waste generated by the proposed Project, is operated in compliance with all applicable federal, State, and local statutes and regulations related to solid waste. The Project would be required to comply with County regulations pertaining to on-site storage of solid waste and recyclable materials, codified in County Code Section 22.20.100, which is in conformance to the California Solid Waste Reuse and Recycling Access Act (Public Resources Code Sections 42900-42911). Implementation of the proposed Project would not conflict with regulations related to solid waste.

2005 EIR Mitigation Measures

The 2005 EIR did not identify any mitigation measures to reduce impacts to utilities and service systems. As previously discussed in Section 10, the 2005 EIR identified mitigation measures to reduce stormwater drainage capacity impacts, including Mitigation Measures 5.2-2, 5.2-7, and 5.2-8, which were adopted and made conditions of project approval, and these measures would continue to apply to the proposed Project. These previously adopted mitigation measures are listed at the end of Section 10.

---

94 City of Santa Barbara, *City of Santa Barbara Waste Generator Calculator*, updated July 27, 2016.

95 CalRecycle, Facility Information Toolbox, Disposal Facility Annual Capacity Analysis, Accessed January 11, 2018 at: http://www.calrecycle.ca.gov/FacIT/Facility/Charts/DisposalGap/21DispAnn.pdf.

96 CalRecycle, Solid Waste Information System, Facility/ Site Summary Details: Redwood Landfill (21-AA-0001), Accessed January 11, 2018 at: http://www.calrecycle.ca.gov/SWFacilities/Directory/21-AA-0001/Detail/.

97 CalRecycle, Facility Information Toolbox, Remaining Lifetime Landfill Capacity Analysis, Accessed January 11, 2018 at: http://www.calrecycle.ca.gov/FacIT/Facility/Charts/DisposalGap/21DispLife.pdf.

Conclusion

Implementation of the proposed Project would not result in any new or substantially more severe significant impacts to utilities and service systems than those previously evaluated in the 2005 EIR.

19. Mandatory Findings of Significance

Environmental Issue Area	Where Impact Was Analyzed in the 2005 EIR.	Do Proposed Changes in the Project Involve New Significant Impacts or Substantially More Severe Impacts?	Any Changed Circumstances Involving New Significant Impacts or Substantially More Severe Impacts?	Any New Information of Substantial Importance Requiring New Analysis or Verification?	Do Previously Adopted 2005 EIR Mitigation Measures Address/ Resolve Impacts?
19. Mandatory Findings of Significance.					
a. Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Final EIR Section 5.3 (Biological Resources) and pg. 3.0-48 (Cultural Resources)	No	No	Yes	Yes
b. Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when view in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	Final EIR pgs. 3.0.44 to 3.0-45	No	No	Yes	Yes
c. Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Final EIR sections 5.1 through 5.8	No	No	Yes	Yes

Discussion

19-a) Based on the discussions presented in Checklist Sections 4, Biological Resources, and 5, Cultural Resources (and in Final EIR Section 5.3, Biological Resources, and page 3.0-48), with

mitigation, construction and operation of the proposed Project would not result in new significant impacts or substantially more severe impacts to biological resources or cultural resources.

19-b) The Final EIR found potentially significant cumulative impacts on water quality in Miller Creek and Gallinas Creek, but concluded that previously adopted Mitigation Measure 5.2-10 would reduce the project's contribution to less than cumulatively considerable. Significant cumulative impacts on traffic were identified at the Highway 101 Southbound Ramps/Miller Creek Road, Highway 101 Northbound Ramps/Miller Creek Road, Miller Creek Road/Marinwood Avenue, Miller Creek Road/Las Gallinas Avenue, and Lucas Valley Road/Los Gamos Road intersections, but the applicant's payment of the fair-share contribution to the cost of the recommended intersection improvements would mitigate these impacts to a less-than-significant level. The Final EIR identified less-than-significant cumulative impacts biological resources, public services, and utilities. No new cumulative impacts were identified in the Final EIR Second Amendment. The proposed Project would not substantially increase the severity of any of the impacts, including cumulative impacts, identified in the 2005 EIR, and would not cause any new significant impacts.

19-c) The Final EIR identified significant impacts related to unstable slopes, rockfall, air quality, water quality, noise, and exposure to wildfire that could occur with implementation of the previous project, all of which could have adverse effects on human beings. Mitigation measures were identified and adopted to reduce all of the impacts to a less-than-significant level. The Final EIR Second Amendment did not identify any new impacts with the potential to adversely affect human beings. Based on the analyses presented in Checklist Sections 1 through 18 (and in Final EIR Sections 5.1 through 5.8), the proposed Project would not substantially increase the severity of any of these impacts and would not cause any new significant impacts that would adversely affect human beings, either directly or indirectly.

2005 EIR Mitigation Measures

Previously adopted and revised mitigation measures have been identified in the topical sections of the Environmental Checklist that would be necessary to reduce impacts that could result from approval and implementation of the proposed Project to less-than-significant levels. With application of mitigation measures from the Final EIR, all of which have been adopted as conditions of approval of the Master Plan, no new or substantially more severe significant impacts would occur. In several instances, revised or replacement mitigation measures have been identified to update the measures to current standards.

Conclusion

As discussed in this Environmental Checklist, implementation of the proposed Oaks Senior Living Community Project has the potential to cause adverse effects on special-status species and sensitive natural communities, and to have cumulative impacts on traffic and water quality. However, Implementation of the Project would not result in any significant and unavoidable

impacts or any new or substantially more severe impacts than those previously evaluated in the 2005 EIR, and no new mitigation measures for new impacts are required.

Summary Findings of Checklist

This Environmental Checklist review analyzes the proposed Project and compares the potential impacts to the conclusions of the 2005 EIR. This analysis was completed to determine the requirement for further environmental documentation pursuant to State *CEQA Guidelines* sections 15162, 15163, and 15164. This analysis has identified no new or substantially more severe impacts of the Project compared to those identified and evaluated in the 2005 EIR.

Previously adopted mitigation measures identified in the 2005 EIR and adopted as conditions of approval of the Master Plan would be applied to the Project, as proposed, to reduce or avoid significant impacts. The topic areas in which previously adopted 2005 EIR mitigation measures would apply are the following: Aesthetics, Air Quality; Biological Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Transportation/Traffic; and Public Services. With the application of these previously-identified mitigation measures, summarized below and reproduced in full in the Environmental Checklist, no new significant impacts or substantial increases in the severity of previously identified significant impacts requiring revisions to the 2005 EIR would occur. Although no new mitigation measures for new significant impacts are required for the adoption and implementation of the proposed Project, a few instances new mitigation requirements have been added to address previously identified significant impacts.

The mitigation requirements that would apply to the proposed Project are summarized below, by environmental resource issue.

Aesthetics

Previously adopted 2005 EIR Mitigation Measure 5.4-5 requires the implementation of the applicant's proposed landscaping plan. This mitigation measure would continue to apply to the proposed Project. No new mitigation measures would be required.

Air Quality

The 2005 EIR identified Mitigation Measure 5.6-3 to reduce identified air quality impacts to sensitive receptors during Project construction. This previously adopted mitigation measure would continue to apply to the proposed Project. No new mitigation measures would be required.

Biological Resources

The 2005 EIR identified Mitigation Measures 5.3-1(a) (Landscape and Vegetation Management Plan), 5.3-1(b) (restrictions on off-road vehicle travel), 5.3-2(c) (guidelines for tree preservation and protection), 5.3-2(d) (tree replacement program), 5.3-4(c) (minimize construction

disturbance of Miller Creek), 5.3-6 (minimize disturbance to Miller Creek), and 5.3-7 (protection of nesting raptors), all of which were adopted and would continue to apply to the propose Project. Previously adopted Mitigation Measure 5.3-3 (native grassland restoration and enhancement program) would continue to apply to the project Site, but the portion applying to residential lots is no longer applicable. This Addendum recommends minor modifications and clarifying revisions to the following previously adopted 2005 EIR mitigation measures 5.3-2(a) (deed restrictions on tree removal), 5.3-2(b) (protection of existing trees), 5.3-2(c) (guidelines for tree preservation and protection), 5.3-2(d) (tree replacement program), 5.3-4(a) (wetland protection, replacement, and restoration program), and 5.3-4(b) (erosion and sedimentation control plan). A new subsection (e) to previously adopted Mitigation Measure 5.3-2 would establish the timing of the other biological mitigation measures. A new subsection (d) to previously adopted Mitigation Measure 5.3-4 provides an alternative option for mitigating impacts to jurisdictional wetlands. A new subsection (a) to previously adopted Mitigation Measure 5.3-7 specifies measures for protecting special-status bats during roosting season.

Cultural Resources

The 2005 EIR did not identify any mitigation measures for impacts to cultural resources, and no new cultural resources mitigation measures are required for the proposed Project.

Energy

The 2005 EIR did not address energy impacts. No new energy mitigation measures are required for the proposed Project.

Geology and Soils

The 2005 EIR identified six mitigation measures to reduce identified geology and soils impacts that were previously adopted and would continue to apply to the proposed Project: Mitigation Measures 5.1-1 (repair of landslides), 5.1-3 (limit on heights of cut and fill slopes), 5.1-4(a) and (b) (installation of drainage devices), 5.1-6 (design and build Project in conformance with the Uniform Building Code), 5.1-9 (removal of unstable materials), and 5.1-13 (provision for long-term maintenance of mitigation measures). In addition, the Hydrology and Water Quality section of the 2005 EIR identified two previously adopted mitigation measures to reduce erosion impacts: Mitigation Measures 5.2-7 (implementation of a Stormwater Pollution Prevention Plan) and 5.2-8 (acquisition of permits for bridge construction), both of which would continue to apply to the proposed Project.

Greenhouse Gases

The 2005 EIR did not address greenhouse gas emissions. The proposed Project would not require any new mitigation measures to reduce greenhouse gas emissions.

Hazards and Hazardous Materials

Although the Final EIR did not discuss impacts related to hazardous materials, it identified one mitigation measure to reduce a wildfire hazard at the site. Previously adopted Mitigation Measure 4.8-2 (implementation of a Fire Management Plan) would continue to apply to the proposed Project. No new mitigation measures for hazards are required for the proposed Project.

Hydrology and Water Quality

The 2005 EIR identified five mitigation measures to reduce identified hydrology and water quality impacts that were previously adopted and would continue to apply to the proposed Project: Mitigation Measures 5.2-2 (construction of stormwater detention / treatment basin), 5.2-7 (implementation of a Stormwater Pollution Prevention Plan), 5.2-8 (acquisition of permits for bridge construction), 5.2-10 (implementation of water quality best management practices), and 5.2-11 (implementation of Mitigation Measure 5.2-10 for cumulative impacts).

Land Use and Planning

There were no mitigation measures for land use and planning impacts in the 2005 EIR, and no new mitigation measures are required for the proposed Project.

Mineral Resources

There were no mitigation measures for mineral resources impacts in the 2005 EIR, and no new mitigation measures are required for the proposed Project.

Noise

The 2005 EIR identified one mitigation measure to reduce temporary construction noise impacts: Previously adopted Mitigation Measure 5.7-3 (maintenance of equipment, restrictions on construction hours). This mitigation measure would continue to apply to the proposed Project. The 2005 EIR identified mitigation requirements to achieve acceptable interior noise levels in the assisted living facility. These measures would continue to apply to the proposed Project, and they have been further clarified in Mitigation Measure 5.7-1, stipulating specific noise ratings for windows and doors.

Population and Housing

There were no mitigation measures for population and housing impacts in the 2005 EIR, and no new mitigation measures are required for the proposed Project.

Public Services

The 2005 EIR identified one previously adopted mitigation measure to reduce identified public services impacts. Mitigation Measure 5.8-2 (implementation of Fire Management Plan) would continue to apply to the proposed Project.

Recreation

There were no mitigation measures for population and housing impacts in the 2005 EIR, and no new mitigation measures are required for the proposed Project.

Transportation/Traffic

The 2005 EIR identified six mitigation measures to reduce identified traffic impacts that were previously adopted and would continue to apply to the proposed Project: 7.0-1 (implementation of the following measures), 7.0-1(c) (signalization of Highway 101 Southbound Ramps / Miller Creek Road intersection), 7.0-2(a) (signalization of Miller Creek Road / Marinwood Avenue intersection), 7.0-2(c) (signalization of Highway 101 Southbound Ramps / Miller Creek Road intersection), 7.0-3(a), and 7.0-3(c). (Mitigation Measures 7.0-1(b)/7.0-2(b) are not applicable to the current Project, and were not adopted as conditions of approval of the Master Plan.) Based on the analysis of the current Project summarized in this Addendum, revisions to Mitigation Measures 7.0-1(a) (signalization of Miller Creek Road / Marinwood Avenue intersection) and 7.0-3(d) (signalization of Miller Creek Road / Las Gallinas Avenue intersection) are recommended in this Addendum for consideration by County decision makers.

Utilities and Service Systems

The 2005 EIR did not identify any mitigation measures to reduce impacts to utilities and service systems. Implementation of the proposed Project would not require any new mitigation measures to reduce impacts to utilities and service systems.