MITIGATED NEGATIVE DECLARATION

Marin County Environmental Review

Pursuant to Section 21000 et. seq. of the Public Resources Code and Marin County Environmental Impact Review Guidelines and Procedures, a Negative Declaration is hereby granted for the following project.

1. Project Name: Albion Monolith Master Plan and Tentative Map

2. Location: 33 and 37 Albion Street, San Rafael, CA 94901
   Assessor Parcel Numbers: 018-087-13 & -14

3. Project Summary:

   The project is a proposal to subdivide two lots into five lots, and includes the creation of four new lots (Lots 1-4) for the purpose of single-family residential development, and one new lot (Lot 5) for multi-family residential development.

4. Project Sponsor: Albion Monolith LLC

5. Finding:

   Based on the attached Initial Study and without a public hearing, it is my judgment that:

   ☐ The project will not have a significant effect on the environment.

   ☒ The significant effects of the project noted in the Initial Study attached have been mitigated by modifications to the project so that the potential adverse effects are reduced to a point where no significant effects would occur.

Mark Lee _____ Date: 6/13/2019

Rachel Reid
Environmental Planning Manager

Based on the attached Initial Study, a Mitigated Negative Declaration is granted.

_____ Date: _____

Board of Supervisors

1. Mitigation Measures:

   ☐ No potential adverse impacts were identified; and therefore, no mitigation measures are required.

   ☒ Please refer to mitigation measures in the attached Initial Study.

   All of the mitigation measures for the impacts listed above have been incorporated into the project and are required as conditions of approval.

2. Preparation:

   This Mitigated Negative Declaration was prepared by Richard Grassetti, Environmental Planning Consultant on behalf of the Marin County Community Development Agency - Planning Division. Copies may be obtained at the address listed below.

   Marin County Community Development Agency
   Planning Division
   3501 Civic Center Drive, Suite 308
   San Rafael, CA 94903
   (415) 473-6269
   Monday-Thursday, 8:00 a.m. to 4:00 p.m.

MARIN COUNTY COMMUNITY DEVELOPMENT AGENCY
PLANNING DIVISION

INITIAL STUDY

ALBION MONOLITH MASTER PLAN AND TENTATIVE MAP

I. BACKGROUND

A.	**Project Sponsor's Name and Address:**	Mr. Hayes Shair Albion Monolith LLC 39847 Davis Street Fremont, CA 94538
B.	**Lead Agency Name and Address:**	Marin County Community Development Agency Planning Division, 3501 Civic Center Dr., Suite 308 San Rafael, CA 94903
C.	**Agency Contact:**	Tammy Taylor (415) 473-7873 TTaylor@marincounty.org

II. PROJECT DESCRIPTION

A.	**Project Title:**	Albion Monolith Master Plan and Tentative Map (Project ID: P1921)
B.	**Type of Application(s):**	Master Plan and Tentative Map
C.	**Project Location:**	33 and 37 Albion Street San Rafael, CA Assessor's Parcels: 018-087-13 and 018-087-14
D.	**General Plan Designation:**	Medium Density Residential (MDR); Low to Medium Density Residential (MF3)
E.	**Zoning:**	Residential Multiple Planned, 9 units/acre maximum density (RMP-9)

F. Description of Project:

ENVIRONMENTAL SETTING

The 1.78-acre (77,513 sq. ft.) project site is located on two parcels in the California Park neighborhood, in the unincorporated area between the cities of San Rafael and Larkspur. (see Figure 1, Project Location). The property is located at the eastern terminus of the Southern Heights Ridge, immediately adjacent and west of U.S. 101, approximately 0.37 miles south of its interchange with I-580. The lower (northern) portion of the site abuts Auburn Street and the upper (southern) portion abuts Albion Street. There are two single-family houses on Albion Street, at the southern edge of the site (see Figure 2, Existing Site Plan). The lower portion of the site abuts a complex of duplexes to the west and US 101 to the east. A Montessori school is directly across Auburn street from the site.

The undeveloped portions of the site are covered in native and non-native vegetation, with a number of large native and ornamental trees. It also houses an occasional unpermitted homeless encampment. There is a steep drop-off from the upper to lower portions of the site, which appears to be the face of an old quarry. The lower portion of the site is gently sloped, while the upper portion ranges from moderately to steeply sloping. The entire site drains northward, towards Auburn Street.

PROPOSED PROJECT

Overview

The applicants have submitted a Master Plan, a Tentative Subdivision Map, and Tree Removal Permit for the subdivision and future development of the property. The Master Plan lays out the final configuration of lots and development for the property and establishes a regulatory framework for the future development. The Master Plan would allow, but not require, the subdivision of the property to be carried out in multiple phases. The Tentative Map currently entails the subdivision of two existing legal lots of record that are each developed with detached single family residences into a total of five legal lots of record, with the existing residences to remain and the three additional lots to be developed in accordance with future entitlements. If the project is approved, the applicant would need to complete the subdivision process by recording a single Parcel Map, or two Parcel Maps, resulting in the subdivision of the existing two lots into five new residential lots. Further, the proposed Master Plan would allow proposed Lot 5 to be further subdivided in the future into residential condominiums with six attached single family residences surrounded by an improved common area parcel to be jointly maintained by the owners of the condominiums.

The framework of the proposed Master Plan would allow for a total of eight new residences, in addition to the two residences already on the property. Of the 10 residences allowable on the property under the Master Plan, four would be detached single family homes and six would be attached condominiums. The proposed Master Plan also lays out future procedural requirements that distinguish between necessary ministerial approvals that are based on objective standards and necessary discretionary approvals that are based on analysis, judgement, and mandatory findings of fact. The specific types of future

development proposed for ministerial review are described on plan sheet TM01 entitled "Master Plan" and include improvement plans, landscape plans, plot plans, and minor modifications to the Master Plan design details. The types of future development subject to discretionary review is proposed to include development of all new residences, both attached and detached, exceeding setbacks, and major modifications to the Master Plan design details.

Tree Removal Permits would be required for the removal of any mature, native trees onsite. One protected tree would need to be removed at the outset to facilitate the site improvements, and future Tree Removal Permits are anticipated with the details to be worked out concurrently with the future Design Review applications.

This Initial Study evaluates the whole of the project, including all reasonably foreseeable future development, regardless of the phase or timing of that development. Details of the various components of the project are provided in the sections below.

Subdivision and Development Plans

The proposed Project includes the creation of four new lots (Lots 1-4) for the purpose of single-family residential development, and one new lot (Lot 5) for multi-family residential development. Per the Project plans, Lots 1 and 2 would be reserved for new single-family residences, Lots 3 and 4 would contain the existing single family residences, and Lot 5 would be a multi-family lot to be developed later. The Master Plan currently shows the potential for a six-lot condominium development on the fifth lot, however for the purposes of the present application, the development potential of the multi-family lot would be for an apartment complex on Lot 5. The Master Plan also proposes to allow a waiver of Design Review requirements for the two new single-family residences on Lots 1 and 2, subject to ministerial approval. The condominium development would require Design Review at a later date, along with the Tentative Map for that parcel.

Lot Summary Table

Lot	**Lot Area** (square feet)	**Average Slope %**	**Use**
Lot 1	10,999	26	New single family residence
Lot 2	10,202	29	New single family residence
Lot 3	5,471	27	Existing single family residence
Lot 4	15,080	28	Existing single family residence
Lot 5	35,761	34	New 6-unit multi-family condominium units

Pursuant to Chapter 22.44 of the Marin County Development Code, a Master Plan is required because the Project entails the subdivision of the property that requires Final Map approval and the construction of two new residential dwelling units, in addition to two existing units in a Planned zoning district.

The two existing homes on the site would remain (on Lots 3 and 4). The Master Plan shows building footprints and conceptual development plans for all of the lots. Three of the detached residences would have three bedrooms, and the fourth would have two bedrooms. Parking would be provided per County code, with four spaces for three of the detached residences and five spaces for the other.

Project Access

Lots 1 and 2 are proposed to take access via a new 20-ft. wide driveway from Albion Street, Lots 3 and 4 would continue to be accessed by an existing shared driveway, and Lot 5 is proposed for access from a new 24-foot wide private driveway from Auburn Street.

Grading and Staging

Approximately 7,885 cubic yards of material would be cut from the site, and about 240 cubic yards (cy) of fill would be placed, resulting in the need to off-haul 7,645 cubic yards of earthen materials. At 12 cy/truck, this would require approximately 640 truckloads of material. Retaining walls would be constructed along the sides and behind the attached structures on Lots 7 and 8, and along the new driveway accessing lots 1 and 2. The houses proposed for Lots 1 and 2 would be on stilts, and would not require substantial grading or retaining walls. All staging would occur on-site.

Drainage Plan

A drainage plan has been prepared for the Project site incorporating Low Impact Development design features, consistent with the San Francisco Bay Regional Water Quality Control Board's C.3. requirements. The plan divides the site into twelve sub-areas, 11 of which would drain to bio-retention basins or bio-swales. The remaining basin is open space that would be self-treating. The preliminary drainage plan is shown in Figure 5.

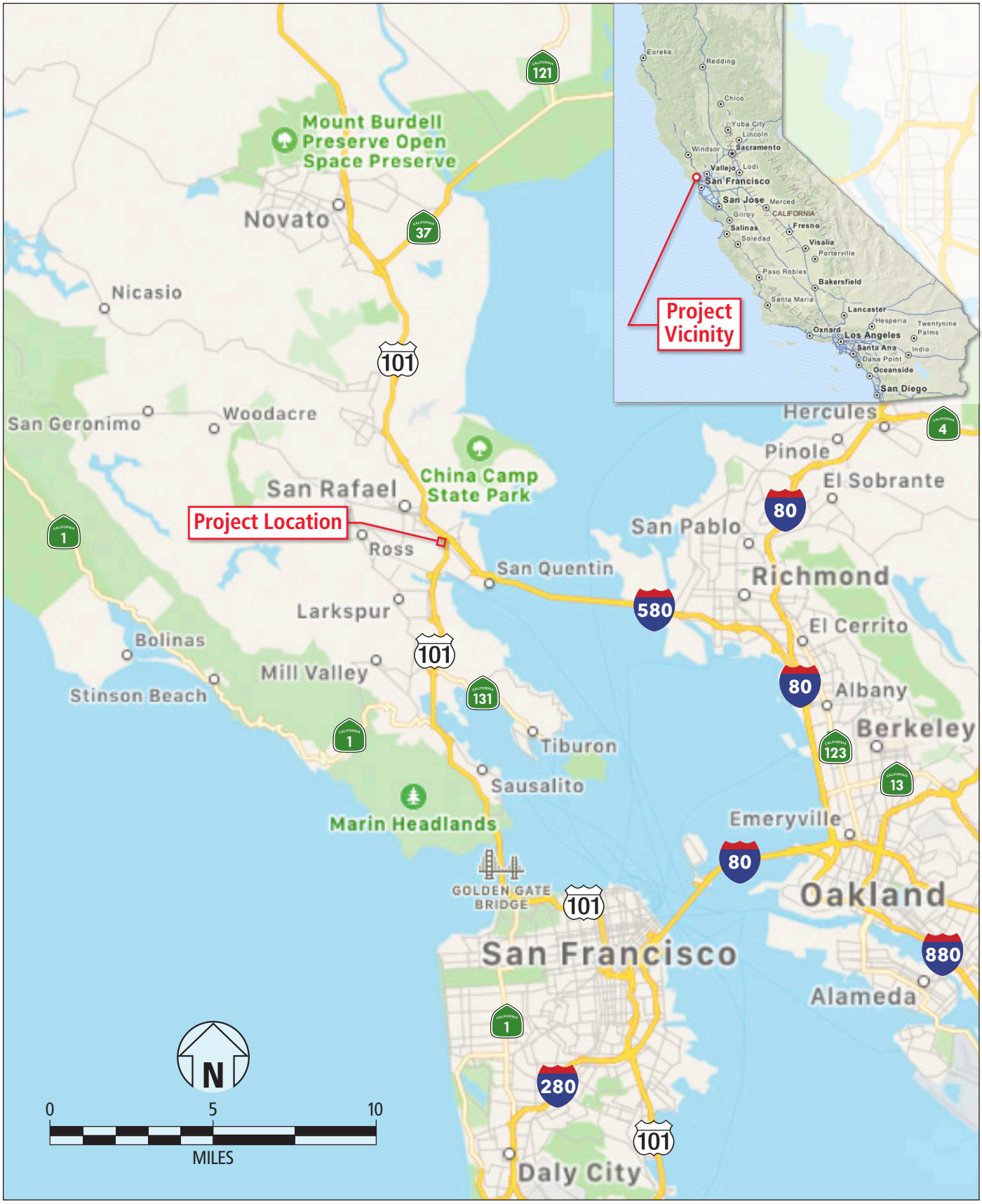

Figure 1

Project Location

Source: TomTom Maps and Grasetti Environmental

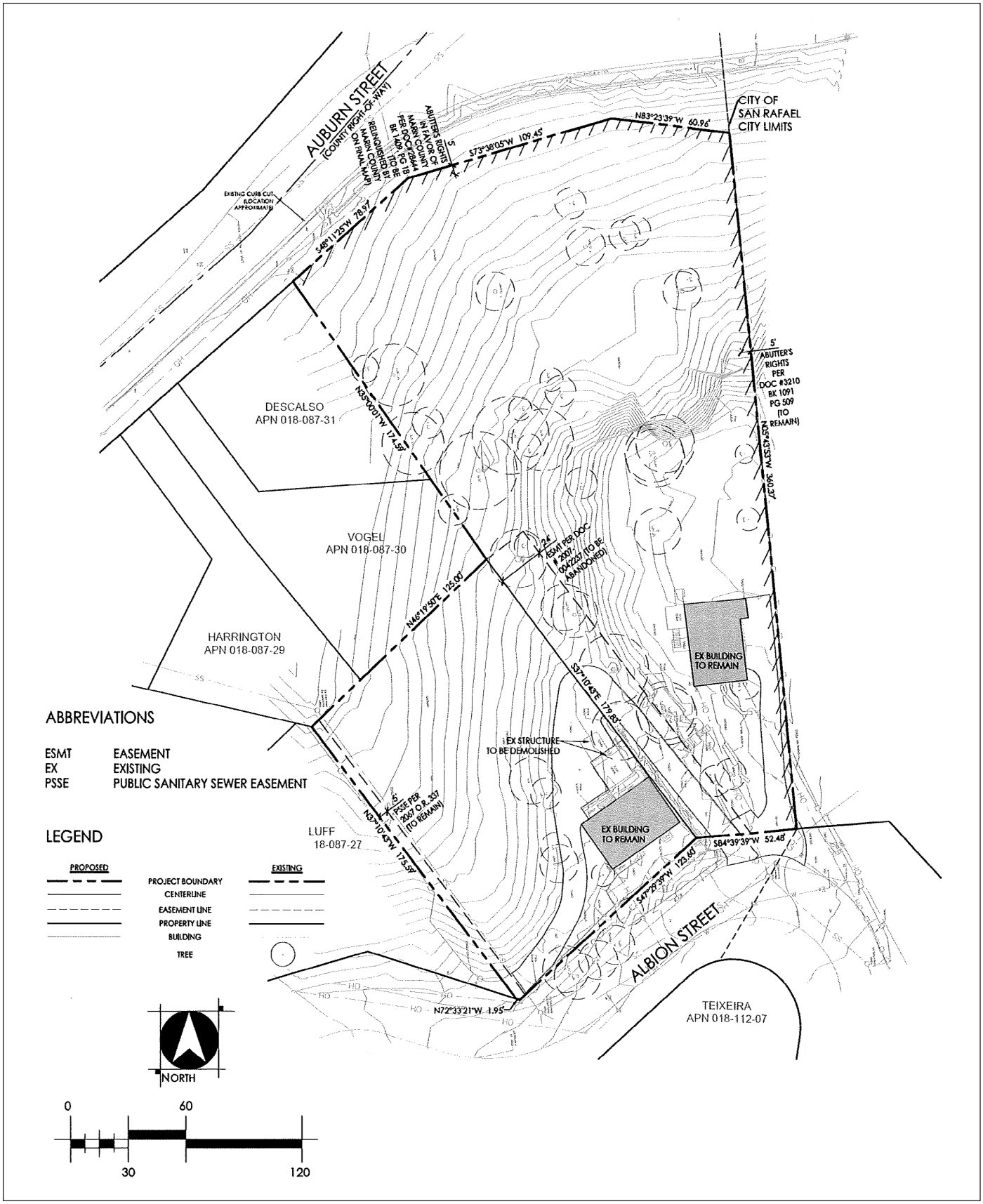

Figure 2

Existing Site Plan

Source: Wood Rodgers

Figure 3

Proposed Master Plan

Source: Wood Rodgers

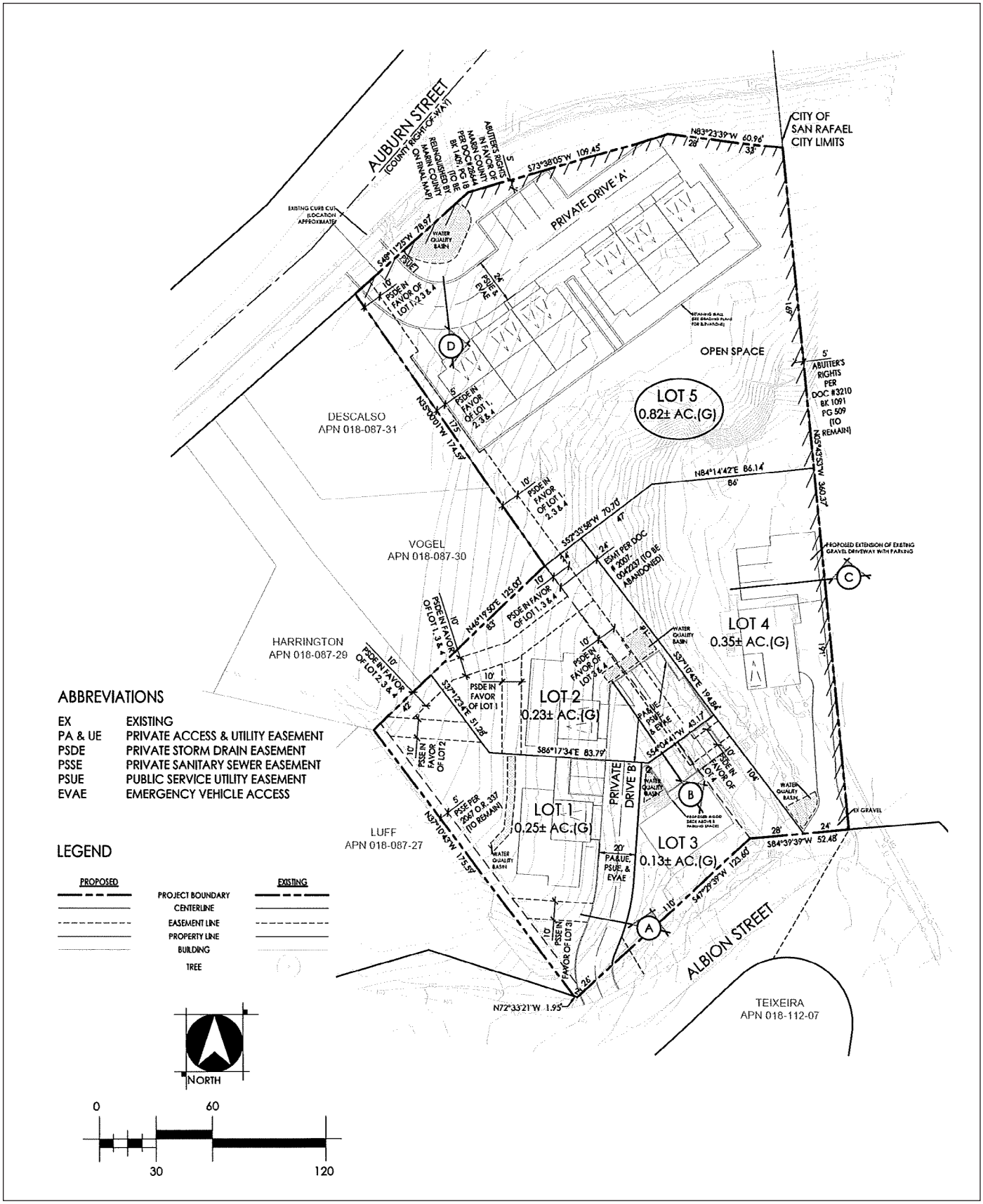

Figure 4

Proposed Tentative Map

Source: Wood Rodgers

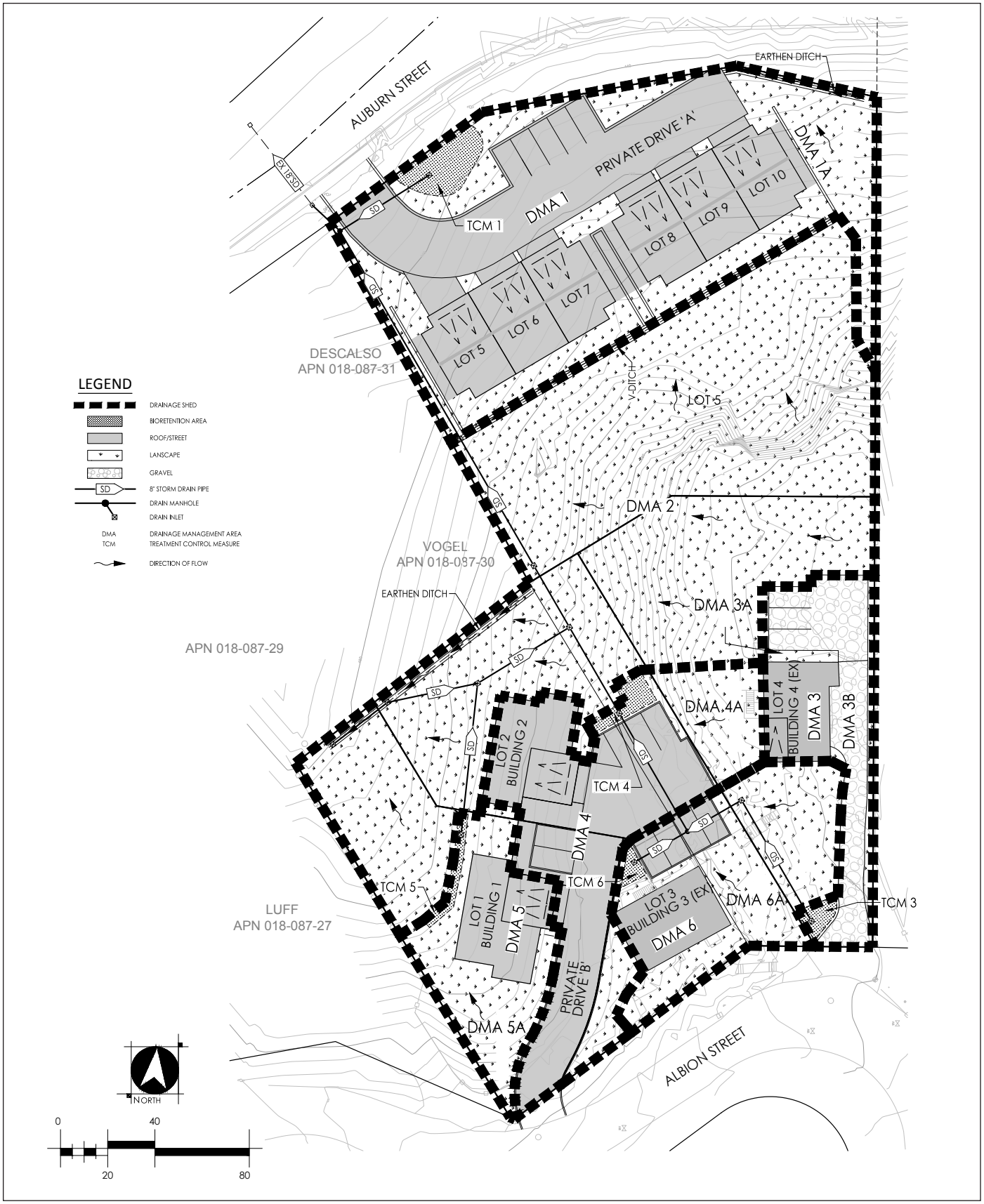

Figure 5

Stormwater Control Plan

Source: Wood Rodgers

Required Approvals

Approvals required for the Project and the agency responsible for each approval include the following:

- Master Plan approval (Marin County Community Development Agency, Planning Division)
- Tentative Map approval (Marin County Community Development Agency, Planning Division)
- Parcel Map approval (Marin County Community Development Agency, Planning Division, and Public Works Department, Survey Division);
- Grading permit for on-site grading (Marin County Public Works Department);
- Building permits for construction of new residences (Marin County Community Development Agency, Building and Safety Division);

In addition, the future development of the vacant lots also would require Master Plan Complianc, Design Review approvals and Tree Removal Permits, as summarized below.

Master Plan Compliance. Future site improvements are proposed to be subject to ministerial review to ensure compliance with the following Master Plan Criteria:

- Improvement plans/grading plans
- Landscape plans
- Plot plans
- Lot-line adjustment
- Minor modifications to the Master Plan that do not change the vision or design intent, including but not limited to changes to storm-water treatment basins, changes to private drive alignments to accommodate grading, and minor changes (less than five feet) to the site plan.

Design Review. Discretionary Design Review would be required for the future development of the currently undeveloped lots to assure compliance with established Master Plan criteria.. Design Review typically focuses on issues such as site improvements, architecture, and impacts to the light, views, and privacy enjoyed on surrounding properties.

Tree Removal Permit. Tree Removal Permits would be required for the removal of all healthy, mature, native trees as defined in the Marin County Code as "protected" or "heritage" trees unless the general health or structural integrity of a tree is seriously compromised. These permits would be required as development proceeds and applications to develop the individual lots are submitted. Tree Removal Permits normally require that all removed trees be replaced at a two-to-one ratio. In cases where defensible space or other requirements prevent the full two-to-one replacement, a fee of $500 per unplanted replacement tree is levied and applied towards forest health activities carried out by the Marin County Parks and Open Space Department.

(Sources #: 1, 2, 3)

III. CIRCULATION AND REVIEW

This Initial Study/Mitigated Negative Declaration is being circulated for a 30-day review and comment period pursuant to State CEQA Guidelines Section 15073. It is being circulated to all agencies that have jurisdiction over the subject property or the natural resources affected by the Project and to consultants, community groups, and interested parties to attest to the completeness and adequacy of the information contained in the Initial Study as it relates to the concerns which are germane to the agency's or organization's jurisdictional authority or to the interested parties' issues.

Marin County Agencies:

- Marin County Community Development Agency, Planning Division
- Marin County Department of Public Works (DPW)
- Marin County Fire Department
- City of San Rafael Fire Department
- San Rafael Sanitary District
- Marin Municipal Water District

Trustee and Responsible Agencies:

- California Department of Fish and Wildlife
- California Regional Water Quality Control Board
- California State Historic Preservation Officer

IV. EVALUATION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Pursuant to Section 15063 of the State CEQA Guidelines, and the County EIR Guidelines, Marin County will prepare an Initial Study for all projects not categorically exempt from the requirements of CEQA. The Initial Study evaluation is a preliminary analysis of a project which provides the County with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration. The points enumerated below describe the primary procedural steps undertaken by the County in completing an Initial Study checklist evaluation and, in particular, the manner in which significant environmental effects of the project are made and recorded.

A. The determination of significant environmental effect is to be based on substantial evidence contained in the administrative record and the County's environmental data base consisting of factual information regarding environmental resources and environmental goals and policies relevant to Marin County. As a procedural device for reducing the size of the Initial Study document, relevant information sources cited and discussed in topical sections of the checklist evaluation are incorporated by reference into the checklist (e.g. general plans, zoning ordinances). Each of these information sources has been assigned a number which is shown in parenthesis following each topical question and which corresponds to a number on the data

base source list provided herein as Attachment 1. See the sample question below. Other sources used or individuals contacted may also be cited in the discussion of topical issues where appropriate.

B. In general, a Negative Declaration shall be prepared for a project subject to CEQA when either the Initial Study demonstrates that there is no substantial evidence that the project may have one or more significant effects on the environment. A Negative Declaration shall also be prepared if the Initial Study identifies potentially significant effects, but revisions to the project made by or agreed to by the applicant prior to release of the Negative Declaration for public review would avoid or reduce such effects to a level of less than significance, and there is no substantial evidence before the Lead County Department that the project as revised will have a significant effect on the environment. A signature block is provided in Section VII of this Initial Study to verify that the project sponsor has agreed to incorporate mitigation measures into the project in conformance with this requirement.

C. All answers to the topical questions must take into account the whole of the action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Significant unavoidable cumulative impacts shall be identified in Section V of this Initial Study (Mandatory Findings of Significance).

D. A brief explanation shall be given for all answers except "Not Applicable" answers that are adequately supported by the information sources the Lead County Department cites in the parenthesis following each question. A "Not Applicable" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "Not Applicable" answer shall be discussed where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

E. "Less Than Significant Impact" is appropriate if an effect is found to be less than significant based on the project as proposed and without the incorporation of mitigation measures recommended in the Initial Study.

F. "Potentially Significant Unless Mitigated" applies where the incorporation of recommended mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead County Department must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section IV, "Earlier Analyses", may be cross-referenced).

G. "Significant Impact" is appropriate if an effect is significant or potentially significant, or if the Lead County Department lacks information to make a finding that the effect is less than significant. If there are one or more effects which have been determined to be significant and unavoidable, an EIR shall be required for the project.

H. The answers in this checklist have also considered the current State California Environmental Quality Act Guidelines and Appendix G contained in those Guidelines.

V. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "potentially significant impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources
X Air Quality	X Biological Resources
X Cultural Resources	☐ Energy
X Geology and Soils	☐ Greenhouse Gas Emissions
☐ Hazards and Hazardous Materials	X Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources
X Noise	☐ Population and Housing
☐ Public Services	☐ Recreation
☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire
☐ Mandatory Findings of Significance	

Determination:

On the basis of this initial evaluation:

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

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

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

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

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

Mark for R. Reid
Signature

6/13/2019
Date

VI. Environmental Impact Checklist

1. LAND USE AND PLANNING.

Would the proposal:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Conflict with applicable Countywide Plan designation or zoning standards? (sources #: 1-3)	**[ ]**	**[ ]**	**[X]**	**[ ]**

The subject property is governed by the land use designation contained in the Marin Countywide Plan (CWP) and by zoning standards contained in Title 22 of the Marin County Code.

Marin Countywide Plan (CWP)

The Project site is located within the City-Centered Corridor, as delineated in the CWP. The Project site has land use designations of MDR (Medium Density Residential) and MF3 (Multi-Family 3) in the CWP. The MDR and MF3 designations apply to areas where moderate density single-family and multi-family residential development can be accommodated in areas that are accessible to a range of urban services near major streets, transit services, and neighborhood shopping facilities.

Pursuant to the Countywide Plan policies, areas designated MF3 have a permitted density of 5-10 dwelling units per acre, and a Floor Area Ratio (FAR)[1] of 10-30 percent. Pursuant to CWP policy CD-8.6, the Floor Area Ratio standard applies only to non-residential development, which is not contemplated in the proposed project; only the residential density standard applies. The lots that would be developed under the Project range from about 5,500 square feet to 11,000 square feet. The site totals 1.78 acres and, with the proposed 10 units, the density for the Project would be about 5.6 dwelling units per acre. The Project would therefore be in substantial conformance with the CWP land use designation.

[1] FAR is the ratio of floor space to lot size. For example, a 2,000 square foot structure on a 10,000 square foot lot has a FAR of 0.20 or 20 percent.

Development Code

The two existing lots are zoned RMP-9 (Residential Multiple Planned, 9 units/acre maximum density), one of several zoning designations compatible with the MDR and MF3 and use designations. The RMP zoning district is intended for a full range of residential development types within the unincorporated urban areas of the County, including single-family, two-family dwellings, multi-family residential development, and limited commercial uses in suburban settings, along with similar and related compatible uses, where site or neighborhood characteristics require particular attention to design detail provided through the Master Plan process (Chapter 22.44 (Master Plans and Precise Development Plans)). The RMP district is applied to areas identified by the Marin Countywide Plan as capable of accommodating increased density, and is consistent with the Planned Residential and Multi-Family 2, 3, 3.5, 4, and 4.5, the General Commercial/Mixed Use, Office Commercial/Mixed Use, Neighborhood Commercial/Mixed Use, PD-Agricultural and Environmental Resource Area, PD-Reclamation Area, Public and Quasi-Public land use categories of the Marin Countywide Plan. The proposed Project, as shown in the Master Plan, would be consistent with the site's zoning designation.

b) Conflict with applicable environmental plans or policies adopted by Marin County? (sources #: 1-4)	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[X]**	**[ ]**	**[ ]**

The considerations of the Project's consistency with relevant County policies discussed below represent County staff interpretation. This Initial Study does not, however, determine policy consistency. The County decision-makers make the formal policy consistency determinations.

Policy inconsistencies may not necessarily indicate significant environmental effects. State CEQA Guidelines Section 15358(b) states that "effects analyzed under CEQA must be related to a physical change [to the environment]." Therefore, only those policy inconsistencies that would lead to a significant effect on the physical environment are considered significant impacts under CEQA. Policy inconsistencies associated with environmental resources also may provide evidence of significance of physical impacts of the Project on those resources. Other policy issues not pertaining to physical environmental changes will be addressed as part of the County's review of the merits of the Project. Many policies discussed in this section pertain to environmental topics evaluated elsewhere in this Initial Study. Where this is the case, the reader is directed to the relevant section.

The plan adopted by Marin County that pertains to the Project is the 2007 CWP. The CWP contains numerous goals, objectives, policies, and programs intended to protect the environment. The site is not covered by a Community or Area Plan. The environmental

protection policies contained in the CWP that pertain to the proposed Project are considered below. Policies are grouped where appropriate to facilitate the policy analysis.

The proposed Master Plan is consistent with the Goals, Policies, Objectives, and Programs of the Countywide Plan, as summarized below:

Table 1-1. Applicable Marin Countywide Plan Policies - Project Conformance Evaluation

Goal/Policy/Objective	Guidance	Project Compliance
AIR-1.2:	Seek to attain or exceed the more stringent of federal or State Ambient Air Quality Standards for each measured pollutant.	As discussed below in Section V.5, Air Quality, the Project would result in potentially significant impacts to air quality from construction-related emissions. Implementation of Mitigation Measure AQ-1 and required BAAQMD control measures, as described in Section V.5, Air Quality, would reduce the identified impacts to less than significant and ensure consistency with the identified policies.
AIR-1.3:	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.	See above.
AIR-4.1 Reduce Greenhouse Gas Emissions.	Adopt practices that promote improved efficiency and energy management technologies; shift to low-carbon and renewable fuels and zero emission technologies.	As discussed in Section V.6, Greenhouse Gas Emissions, all residences constructed under the Project would be required to comply with the Marin County Green Building Ordinance and California Title 24 building codes,

		which would ensure that construction and use of the residences minimizes greenhouse gas emissions. Section V.6 finds that the Project would not result in significant increases in greenhouse gas emissions, nor would it conflict with existing plans to reduce such emissions. Therefore, the project is consistent with the given policy.
AIR-4.m: Focus Development in Urban Corridors.	Build in urban corridors and limit development in natural resource areas. Encourage green spaces that serve as carbon sinks in urban corridors. (Also see CD-1, CD-2, and DES-3).	The Project site is in the developed San Rafael-Larkspur urban corridor. Therefore, the project is consistent with the given policy.
BIO-1.3: Protect Woodlands, Forests, and Tree Removal	The County shall strive to protect large trees, trees with historical importance, and oak woodland habitat, and prevent the untimely removal of trees through implementation of tree preservation ordinance.	As described in Section V.8, Biological Resources, the Project would result in the removal of several trees subject to review under Marin County Code §22.27 (Native Tree Protection and Preservation). The Project would comply with Tree Protection mitigation requirements of the County Code. As described in the Project Description, the applicants have provided documentation of the number of Protected and Heritage trees within the Project area and have proposed a plan for the replacement planting of

		trees that would be removed. Mitigation Measures BIO-2 and BIO-4 require the applicants to submit and implement a Native Tree Protection and Replacement Plan to minimize and avoid indirect impacts to protected trees during Project construction. The applicant has prepared a Tree Protection Plan for the County's review. With implementation of the tree Protection Plan and the mitigation measures, the Project would be consistent with this policy.
BIO-1.5: Promote Use of Native Plant Species.	Encourage use of a variety of native or compatible nonnative, non-invasive plant species indigenous to the site vicinity as part of Project landscaping to improve wildlife habitat values.	As discussed in Section V.8, Biological Resources, the Project applicants have proposed replacing trees that would be removed by the Project in accordance with the requirements of the Marin County Code §22.27 (Native Tree Protection and Preservation). Therefore, the project is consistent with the given policy.
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.	The Project site is dominated by non-native and weedy herbaceous vegetation and shrubs, including many landscaping species that have spread onto the site from nearby homes (i.e., aloe, Mission cactus, echium, and belladonna

		lily). Therefore, the proposed Project is not expected to substantially increase the extent of non-native vegetation in the area, and is consistent with the policy.
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.	The Project would not result in an increase in non-native or invasive species. Therefore, the project is consistent with the given policy.
EH-2.1: Avoid Hazard Areas.	Require development to avoid or minimize potential hazards from earthquakes and unstable ground surfaces	As discussed in Section V.3. Geophysical, the Project site is not located within the Alquist-Priolo Zone and is located 9.3 miles east of the San Andreas Fault. It is therefore not subject to surface rupture during an earthquake. Like the entire Bay Area, the Project site is subject to strong ground shaking during an earthquake. The Project site is within an old quarry area. While the quarry face appears stable, the lower units would be set back from that face to avoid any potential rockfall hazards. This issue is discussed in greater detail in Section V-3, Geophysical. Therefore, the project is consistent with the given policy.

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 earthquake design criteria.	All new buildings on the site would be required to be designed per current building codes. Therefore, the project is consistent with the given policy.
NO-1. Protection from Excessive Noise.	Ensure that new land uses, transportation activities, and construction do not create noise levels that impair human health or quality of life.	The Project would result in new noise sources during Project construction and also following construction, with the ongoing use of the proposed ten new single family residences. Section V.11, Noise, concludes that the noise associated with construction activities and the proposed residential uses would be less than significant, ensuring compliance with the identified policy.
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 pre-development infiltration to reduce downstream erosion and flooding.	The Project includes a drainage plan that assures that Project runoff does not exceed existing peak levels. The site is primarily underlain by hard rock and the Project would not substantially affect infiltration. Therefore, the project is consistent with the given policy.
BIO-4.20 Minimize Runoff.	In order to decrease stormwater runoff, the feasibility of	See above.

	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.	
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.	Development would be limited to the shallower slopes; houses on the upper slopes would be constructed on stilts to minimize grading. Therefore, the project is consistent with the given policy.
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.	See above. In addition, a Storm water pollution prevention plan (SWPPP) would be prepared for this project. See discussion in Section V-4, Water. Therefore, the project is consistent with the given policy.
OS-2.h: Require Clustered Development.	Require clustering to provide effective protection to open space and environmental resources.	The Project includes six attached units located and designed to avoid sensitive open space. The two new detached units would be near existing houses, maximizing the contiguous open space. Therefore, the project is consistent with the given policy.

CD-1.1: Direct Land Uses to Appropriate Areas.	Concentrate urban development in the City-center corridor, where infrastructure and facilities can be made available most efficiently.	The Project would be in a developed residential area adjacent to San Rafael, with existing infrastructure. Therefore, the project is consistent with the given 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.	The Project would include a mix of attached and detached single-family residences. It would comply with Marin County Code, Title 22, Chapter 22.22, Affordable Housing Regulations, as required by that code. Therefore, the project is consistent with the given policy.
CD-2.5: Locate Housing Near Activity Centers.	Provide housing near jobs, transit routes, schools, shopping areas, and recreation to discourage long commutes and lessen traffic congestion.	The site is walkable (0.5 miles) to the transit stop on Bellam Blvd., which is connected to buses to the east bay and the downtown San Rafael transit station. Therefore, the project is consistent with the given policy.
CD-5.2: Concentrate Development and Infrastructure.	For health, safety, and general welfare, new development should occur only where adequate infrastructure is available.	The Project would be in a developed residential area adjacent to San Rafael, with existing infrastructure. Therefore, the project is consistent with the given policy.
CD-6: Confinement of Urban Development.	Concentrate new medium-to-high intensity land uses at infill areas where services can be provided.	Infrastructure and public services are available to serve the site, which is in an established residential area. Therefore, the project is consistent with the given policy.

DES-2.1: Enhance Transit Nodes.	Concentrate commercial and medium-to-high density residential development near activity centers that can be served efficiently by public transit and alternative transportation modes.	The site is walkable (0.5 miles) to the transit stop on Bellam Blvd., which is connected to buses to the east bay and the downtown San Rafael transit station. A system of bike routes and paths is available about 0.5 miles from the site. Therefore, the project is consistent with the given policy.
DES-3: New Development in Built Areas.	New construction should occur in a compact form in developed locations whenever feasible.	The Project is located on an infill site in a residential neighborhood, and includes six compact, attached units as well as two existing and two new detached units. The overall plan is compact in the context of densities consistent with the surrounding neighborhood, and results in a retention of a large internal open space. Therefore, the project is consistent with the given policy.
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.	As discussed in Section V.14, Aesthetics/Visual Resources, the residences developed under the Project are expected to be consistent with the surrounding neighborhood, and are not expected to block views or degrade important visual resources. The development of the proposed single family residences would be consistent with the site's CWP land use designation

		and zoning. The Project would, therefore, be consistent with this policy.
TR-1.2: Maintain Service Standards	Establish level of service standards for vehicles on streets and highways and performance standards for transit, bicycles, pedestrians, and other modes of transportation.	As discussed in Section V.7, Transportation/ Circulation, Project-related traffic, both during and after construction, is not expected to reduce intersection level of service. Therefore, the project is consistent with the given policy.
TR-1.5: Require Necessary Transportation Improvements.	Require necessary transportation improvements to be in place, or otherwise guaranteed to result in their timely installation, before or concurrent with new developments. In evaluating whether a transportation improvement is necessary, the County shall consider alternatives to the improvement consistent with Policy TR-1.1, Manage Travel Demand, and the extent to which the improvement will offset the traffic impacts generated by proposed and expected development and restore acceptable traffic levels of service.	See above.

Conclusion: As summarized above, with mitigation identified in this Initial Study, the Project would substantially comply with applicable CWP goals, objectives, and policies.

c) Affect agricultural resources, operations, or contracts (e.g. impacts to soils or farmlands, impacts from incompatible land uses, or conflicts with Williamson Act contracts)? (sources #: 2, 3, 5, 6)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[ ]	[X]

The Project site is not in an agricultural area and is not zoned for agriculture. None of the parcels that would be developed under the Project are under Williamson Act contracts, and the Project site is not mapped as Prime Farmlands Soil or Farmland Soil of State Importance by the California Department of Conservation. Therefore, the Project would not adversely affect agricultural resources, operations, or contracts, and there would be no impact of this kind.

d) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project would be a small, 10-unit (includes future subdivision potential of the multi-family lot and two existing houses) infill development in an existing urbanized residential neighborhood. It would be compatible in terms of use with the surrounding land uses. Therefore it would not disrupt or divide an established community.

e) Result in substantial alteration of the character or functioning of the community, or present or planned use of an area?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

See Item d, above. The Project would be consistent with the surrounding land uses, and would not change the character of the community. It would change an open historic quarry area to residential, however that use is similar to the surrounding uses. Therefore no significant impact would occur.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
f) Substantially increase the demand for neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities?	[ ]	[ ]	[X]	[ ]

The Project site is private land containing two houses and an undeveloped, fenced open space area, and has no current public or private recreational uses. Depending on the subdivision potential of the multi-family lot, and the Countywide average of 2.4 residents/unit, the Project's eight new units would generate under 20 new residents. This small population increase would not constitute a *substantial* increase in demand for recreational facilities.

2. POPULATION AND HOUSING.

Would the proposal:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Increase density that would exceed official population projections for the planning area within which the project site is located as set forth in the Countywide Plan and/or community plan? (sources #: 1, 2, 3, 7)	[ ]	[ ]	[ ]	[X]

The Project would add eight single family residences, resulting in a population increase in the area of about 20 people, assuming the County-wide average of 2.4 persons per dwelling unit (California Department of Finance, 2017). The density of the proposed development (approximately six dwelling units per acre) is consistent with the Countywide Plan land use designation and County Zoning. Therefore, the Project's density and additional population would be consistent with the Countywide Plan population projections and density for the site, and no impact would occur.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Induce substantial growth in an area either directly or indirectly (e.g. through projects in an undeveloped area or extension of major infrastructure)?	[ ]	[ ]	[X]	[ ]

The Project would be an infill development on a partially developed site in an established residential neighborhood. It would not result in the need for extensions of roads or infrastructure. It also would be consistent with planned development density for the site. Therefore it would not have the potential to induce growth.

c) Displace existing housing, especially affordable housing?	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[ ]**	**[ ]**	**[X]**

The two existing houses on the site would be retained under the proposed Master Plan. It would add eight units to the County's housing stock. Therefore, the Project would not result in the loss of any existing housing.

Sources

(7)

3. GEOPHYSICAL.

Would the proposal result in or expose people to potential impacts involving:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Location in an area of geologic hazards, including but not necessarily limited to: 1) active or potentially active fault zones; 2) landslides or mudslides; 3) slope instability or ground failure; 4) subsidence; 5) expansive soils; 6) liquefaction; 7) tsunami; or 8) similar hazards? (sources #: 8- 13)	[ ]	[X]	[ ]	[ ]

The following responses are based on a geotechnical study performed for the site by GEOCON consultants, Inc., in January 2015. The investigation included literature review, field exploration, laboratory testing, and engineering analysis.

3a.1. – Fault Zones. This area of Marin County is in a seismically active region of California that has experienced moderate to strong ground shaking throughout recorded history. The largest earthquake to impact this region was the 1906 earthquake on the San Andreas fault. The 1989 Loma Prieta Earthquake also subjected this region to substantial ground shaking. Based on recently updated earthquake probability modeling, over the next 30 years, there is a 100 percent likelihood that the San Francisco Bay region will experience a magnitude 5 to 6 earthquake and a 72 percent chance it will experience a magnitude 6.7 to 7 earthquake. The percent likelihood decreases with greater magnitude earthquakes resulting in a 4 percent likelihood of a magnitude 8 or greater (USGS, 2015). The degree of earthquake ground shaking that the Project site will experience depends on the causative fault, the distance to the epicenter, the earthquake magnitude, and the response of the underlying geologic materials to the seismic waves. No active earthquake faults extend through the Project site, and the site is not within an Alquist-Priolo Earthquake Fault study zone and the closest active fault trace to the site is the northern portion of the Hayward fault, located 8.3 miles to the east the site. The San Andreas Fault (1906 earthquake rupture alignment) is located 9.3 miles to the west (GEOCON 2015). Therefore, the potential for surface ground rupture at the Project site during an earthquake is low (GEOCON 2015).

However, during a major earthquake on any of the active faults in the region, the Project site would likely experience moderate to strong shaking. The California Building Code, as adopted by Marin County, requires design and construction of buildings intended for human occupancy to withstand the anticipated ground motion generated during a large

earthquake with minimal damage and without structural collapse. While earthquakes are unavoidable and the Project would expose new home owners to the ground shaking hazards in this region, seismic design parameters required through enforceable building codes would reduce the risk of injury and the loss of life during an earthquake. Impacts associated with fault rupture and earthquake ground shaking would be less than significant.

3a.2.and 3.a.3. – Landslides and Mudslides; **Slope Instability**. The 2015 GEOCON geotechnical investigation completed for the Project site concluded that there were no known landslides near the site, nor is the site in the path of any known or potential landslide. According to the 2018 GEOCON letter report, any slope stability issues associated with the proposed grading on the lower parts of the site can be reduced to a less than significant level by remedial grading and/or foundation design features.

If not properly managed, temporary slope instability and localized slope failure is possible while the Project site is undergoing grading work, and construction of the retaining walls. However, unstable slope conditions during construction would present a short-term potential hazard, which would be identified during site work observation performed by the geotechnical engineer and immediately corrected during grading. Over the long term, the overall risk of slope failure at the Project site would likely decrease due to site improvements such as graded and compacted engineered slopes, keying and benching of fills, permanent drainage controls, and retaining walls to buttress steep slope sections.

While geotechnical investigations are required by law through the CBC and the Marin County Building Code**,** Mitigation Measure GEO-1 further defines the minimum requirements necessary for investigation of the individual lots on the Project site so that each lot would be evaluated at an equal level of effort and standard of care. This measure would reduce this impact to a less-than-significant level. As the proposed Project would be developed over an extended period of time with no established schedule, a meaningful geotechnical analysis for the individual lots cannot be completed until each lot is proposed for development, and the design and proposed development features are established.

Mitigation Measures.

> **Mitigation Measure GEO-1. Implement Geotechnical Investigations Recommendations.** In order to reduce potential impacts associated with slope instability, the Project shall be designed and constructed to implement all seismic design criteria, soils treatment, fill material specifications, drainage specifications, grading recommendations, utilities specifications, moisture control requirements, drainage specifications, and foundation design recommendations set for the in the 2015 GEOCON geotechnical report and their follow-up June 6, 2018 letter. Further, the final Project design shall undergo plan and specification review by a qualified geotechnical consultant, and testing and observation shall be undertaken as specified in the GEOCON geotechnical report.

Monitoring Requirement GEO-1: Before issuance of a Building Permit, the CDA shall confirm with DPW that subsequent geotechnical investigations have been prepared as appropriate and that all applicable geotechnical specifications investigations have been incorporated in the Project plans.

Significance With Mitigation

This measure would reduce the project's geologic hazard impacts to a less-than-significant level.

(a) 4, 5, 6: Subsidence, expansive soils and liquefaction. Subsidence is the gradual, differential lowering or sudden sinking of the ground surface due to changes in the subsurface or movement of earth materials. In Marin County, subsidence could be caused by the removal of groundwater from a shallow aquifer overlain by clay or the collapse of a localized subsurface void (soil piping or tunnel). Because of the lack of deep soils on the site, the settlement potential is low.

The GEOCON geotechnical report for the Project site identified soils with moderate expansion potential on the site. If there are localized expansive soils in areas of proposed development, they would be identified and removed during general grading and site preparation. Risks related to expansive soils would therefore be less than significant.

Liquefaction occurs when saturated, well-graded sands or gravels are subjected to ground shaking, which causes them to transform to a liquid state and lose bearing strength. The seismic hazards associated with liquefaction include lateral spreading, loss of bearing strength/collapse, densification, and settlement. According to the Project Geotechnical Report, web-based mapping by the US Geological Survey shows the lower portion of the site as subject to "very high" liquefaction susceptibility, however, the on-site soils testing shows a shallow depth to bedrock throughout the site, therefore, based on on-site conditions, the Geotechnical Report considers the site's liquefaction potential to be low (GEOCON 2015). Therefore this impact would be less than significant.

(a) 7, 8: Tsunami; or 8) similar hazards?

Tsunamis and seiches can present a hazard to developments located along the shoreline of the ocean or San Francisco Bay. The Project site is situated on a hillside at a minimum elevation of 10 feet above msl and about 0.75 miles from the closest open water area (San Francisco Bay). Therefore, tsunami and seiche hazards would not pose a risk to the Project and the impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Substantial erosion of soils due to wind or water forces and attendant siltation from excavation, grading, or fill?	[ ]	[ ]	[X]	[ ]

The Project could result in erosion of exposed soils and downgradient siltation in Auburn Street catchments and the nearby marshes during the rough construction grading phase. Soil stockpiles would also be exposed to potential erosive forces. Section V.4, Water discusses the details of construction runoff, erosion, and the requirements for control and management. As described in Section V.4, the Construction General Permit requires construction sites to comply with the requirement set forth in a Storm Water Pollution Prevention Plan (SWPPP) that is designed to reduce erosion and sedimentation during and after site construction. In addition, Project-related roadway and lot construction would not take place during the winter months (October through April), unless authorized by the County Engineer, and with erosion control measures specified by the County, thereby further reducing the potential for wind and water erosion. The Project would also be required to implement standard measures for minimizing erosion per the Marin County Code Title 24 and in Marin County Code §23.08, *Excavation, Grading and Filling.* Considering the controls in place to reduce the erosion and siltation caused during construction excavation, grading or fill soil management (i.e. stockpiling), erosion by wind and water is considered less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
c) Substantial changes in topography from excavation, grading or fill, including but not necessarily limited to: 1) ground surface relief features; 2) geologic substructures or unstable soil conditions; and 3) unique geologic or physical features?	**[ ]**	**[ ]**	**[X]**	**[ ]**

The Project would involve minor grading for a driveway along a mid-slope contour below Albion Street resulting in an interruption of the continuity of the existing slopes that flank the hill, and grading at the bottom of the slope to create a flat building pad for future multi-family units. However, the grading would not substantially alter the overall topographic character of the ridge. The proposed upper lots would consist of single family homes on stilts (pier and grade beam foundations) that are designed to accommodate the existing slopes, and the lower area grading would be excavated into the hillside similar to the units to the west on Auburn Street. While the Project would result in upper and lower slope grading, the work would not change the overall site relief and topography and therefore, the impact would be less than significant.

4. WATER.

Would the proposal result in:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Substantial changes in impervious surfaces, drainage patterns, or the rate and amount of surface runoff, including potential effects on storm-water drainage systems? (sources #: 14, 15, 16)	[ ]	[ ]	[X]	[ ]

The Project site is on a hillside located immediately west of US 101, just south of the City of San Rafael. It drains northward to storm drains in Auburn Street, which, in turn, drain into a heavily vegetated drainage channel that discharges into San Rafael Creek marsh, across US 101 just north and east of the site. A detailed drainage study has been prepared for the Project. The study has been peer-reviewed by the County Department of Public Works, land development staff, for accuracy and to verify that methods and assumptions employed were appropriate and that the results were valid. The mostly undeveloped site (two existing small houses and one paved driveway) is on a hillside underlain by shallow bedrock, so permeability is relatively low and runoff relatively high (0.35 runoff coefficient, meaning 35% or rainfall leaves the site as runoff). Impervious surfaces would increase from the current 9,400 sq. ft.t to approximately 27,600 sq. ft. The post-Project runoff coefficient has been calculated at 0.42. Peak runoff flows from the 10-year and 25-year storms would increase from 3.17 and 3.89 cubic feet per second (cfs) to 3.80 and 4.66 cfs, respectively. The 100-year peak flows would increase from 5.08 to 6.10 cfs.

During construction the Project applicants would be required to comply with Marin County Code Section 24.04.625 and apply for coverage under the State of California Construction General Permit because the Project site exceeds one acre in size. Under the Construction General Permit, the Project would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must include site-specific erosion and sedimentation control practices and would limit the amount of runoff that may be directed offsite during construction (for additional discussion of Construction General Permit requirements, see [c], below). Further all grading and excavation would be required to take place between April 16 and September 30 when rainfall is minimal.

Following the completion of construction (post-construction), the Project would be subject to compliance with the Phase II Stormwater NPDES Permit for small municipal separate storm sewer systems (MS4s) covering Marin's cities, towns, and unincorporated areas. Provision E.12 of the MS4 Permit, the "Post Construction Stormwater Management Program is administered locally under Marin County Code Section 24.04.627. Under this code section, any development would be required to complete an approved Stormwater Control Plan consistent with the Bay Area Stormwater Management Agencies Association (BASMAA) post-construction manual (BASMAA, 2014), which specifies design guidance for stormwater treatment and control for Projects

in Marin. At a minimum, the proposed Project would be required to adhere to the BASMAA requirements, which would require source controls of stormwater volumes and implementation of BMPs for stormwater quality management (discussed further under [c] below), including implementation of Low Impact Design (LID) stormwater measures.

Furthermore, because the Project would exceed 5,000 square feet of impervious surface and is part of a larger plan of development, it would be considered a Regulated Project per the BASMAA manual. Regulated Projects are subject to more stringent stormwater permit requirements for post-development typically required of larger developments. BASMAA requirements specify that site designs for new developments that are defined as Regulated Projects, or where otherwise required by the local agency, must minimize the area of new roofs and paving. Where feasible, it is required that pervious surfaces be used instead of paving so that runoff can infiltrate to the underlying soil. Remaining runoff from impervious areas must be captured and used or treated using bioretention. Regulated Projects must also incorporate pollutant source control best management practices (BMPs) into the site design.

Compliance with the Construction General Permit, adherence to BASMAA requirements, application of BASMAA design guidelines and implementation of required LID stormwater quality features would ensure that new development associated with the Project would reduce the amount of runoff that would be directed offsite.

A stormwater control plan in compliance with the BASMAA Post Construction Manual has been prepared for the site to assure that peak runoff flows do not exceed current flows without the Project. The plan includes a system of storm drains and bioretention basins, as well as a large self-treating open space area. The basins are sized to retain all increased runoff resulting from the new impervious surfaces on the site in design storm specified in the BASMAA Post Construction Manual. The plan's drainage system approximates the current drainage pattern, but with detention basins. It would discharge into the existing 18-inch storm drain in Auburn Street. This drain currently receives runoff from the Project site.

As described above, while the Project would somewhat decease absorption rates on the site, increases peak runoff would be detained on-site and no increases in off-site peak runoff flows would occur. Additionally, the drainage pattern would not be substantially altered from the existing pattern, with runoff from the site continuing to flow to the Auburn street storm sewer. Therefore this impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Exposure of people or property to water related hazards, including, but not necessarily limited to: 1) flooding; 2) debris deposition; or 3) similar hazards? (source #: 17)	[ ]	[X]	[ ]	[ ]

As described above, the Project would not increase peak runoff flows from the site. Therefore, it would not contribute to worsening any downstream flooding. According to the FEMA Flood Insurance Rate Map, 100-year flooding from San Rafael Creek would extend to the base of the site, across, but not above, Auburn Street (Zone AE – Elevation 10). The Project residences appear to be located above Auburn Road, and would therefore be above flood levels associated with San Rafael Creek. However, because the Project proposes to lower the site adjacent to Auburn Street, and the exact elevations of the lower attached units are not shown on the Master Plan, Mitigation WATER-1 is identified to assure that flooding impacts are reduced to a less-than-significant level. County Code Section 23.09.036 requires that all subdivisions identify flood hazards and the elevation of the base flood, as well as the elevations for each structure and building pad. That section also requires that all subdivision proposals have adequate drainage to reduce exposure to flood discharge. If the site is determined to be within a flood hazard zone, then Marin County Code Section 23.09.034 would apply. This section prescribed building base elevations, anchoring, construction materials and methods, and floodproofing requirements. The Project site is not located near levees or dams and would not be exposed to flooding from failure of one of these structures (MarinMap, 2018).

Mitigation Measures

Mitigation WATER-1. The Project grading plan shall be designed to assure that the lowest building pads of the units adjacent to Auburn Street, and their associated parking lot, are at least two feet above the mapped 100-year flood levels, or as directed by the County Building Department, in compliance with County Code. The driveway from Auburn Street shall be designed to slope downward to the street.

Monitoring Measure WATER-1. Before issuance of a Building Permit, the CDA staff shall confirm with DPW staff that appropriate building pad elevations have been incorporated in the Project plans, in compliance with County Code.

Significance With Mitigation

This measure would reduce the project's drainage and flood hazard impacts to a less-than-significant level.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
c) Discharge of pollutants into surface or ground waters or other alteration of surface or ground water quality (e.g. temperature, dissolved oxygen or turbidity)?	[ ]	[ ]	[X]	[ ]

The proposed bioretention basins would treat runoff from the developed portion of the site. This would reduce the potential for off-site contaminated stormwater to result from the Project.

Project construction would include stripping of surface vegetation, grading, excavation of soils, and potentially placement of imported engineered soils in the construction area and use of concrete and associated concrete wash-out areas. Activities that cause vegetation removal and ground disturbance, especially on undeveloped slopes, can render soils and sediments more susceptible to erosion from stormwater runoff. Stormwater runoff from disturbed soils associated with construction activities is a common source of pollutants (mainly sediment) to receiving waters. Depending on the distance and ground slope, some portion of the eroded material could be delivered to a receiving stream channel, such as the downgradient unnamed tributary. In this case, increased erosion rates would likely lead to increased sediment concentrations and turbidity levels in the receiving stream channel.

In addition, hazardous materials associated with construction activities would likely involve paint, solvents, oil and grease, concrete, and petroleum hydrocarbons. If improperly handled during construction activities, these materials could enter the stream system and degrade water quality.

Because the Project site exceeds one acre in size, the Project applicants would be required to comply with federal NPDES regulations by applying for coverage under the State Construction General Permit and Marin County Code §24.04.625. Under the Construction General Permit, the applicants would be required to implement construction BMPs as set forth in a detailed SWPPP. SWPPPs are a required component of the Construction General Permit and must be prepared by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP). SWPPPs must describe the specific erosion control and storm water quality BMPs needed to minimize pollutants in storm water runoff, and detail their placement and proper installation. In addition to erosion control BMPs, SWPPPs also include BMPs for preventing the discharge of other NPDES pollutants other than sediment (e.g. paint, solvents, concrete, petroleum products) to downstream waters. Under the provisions of the Construction General Permit, the State-certified QSD is responsible for determining site risk level, developing the SWPPP, and managing its implementation. Under the direction of the QSD, the QSP is required to conduct routine inspections of all BMPs, conduct surface water sampling, when necessary, and report site conditions to the State and/or Regional Water Quality Control Board as part of Construction General Permit compliance

monitoring and reporting using the Stormwater Multi-Application Reporting and Tracking System (SMARTS). Compliance with the Construction General Permit is required by law and has proven effective in protecting water quality at construction sites.

As described under (a), above, the Project would be subject to the requirements of the Phase II MS4 Permit, under Marin County Code §24.04.625. Under Marin County Code §24.04.625, projects that involve construction-related soil disturbance are required to submit an "Erosion and Sediment Control Plan" (ESCP) for approval by the County prior to the issuance of grading or building permits. The ESCP must, at a minimum:

- Identify potential pollutant sources that may affect the quality of stormwater runoff discharges from the construction site;
- Document BMPs that would be implemented and placed in order to prevent, to the maximum extent practicable,11 construction site pollutants from leaving the site and entering the storm drain system during all phases of construction;.
- Document erosion control, sediment control, and good housekeeping BMPs that must be implemented year-round as appropriate based on construction activities.

Following the completion of construction activities, as described under (a), site-specific Project plans would be required to adhere to Marin County Code Section 24..04.627. These provisions require source controls of stormwater volumes and BMPs for stormwater quality management, including implementation of LID stormwater treatment measures. Such LID design features use bio-retention areas, pervious surfaces, and direct runoff to vegetated areas to reduce stormwater runoff and capture stormwater pollutants before entering receiving waters. Additionally, as part of the Project design, stormwater runoff flowing into the proposed new storm sewer would first pass through a filter designed to trap first flush pollutants such as sediment, trash, oil, and grease. Further, as described in the Project Description, the applicants have proposed several protective measures to reduce the potential for water quality impacts during construction. These measures include stabilization of disturbed soils by September 30 of each year, management of trash on-site, use of biodegradable surface erosion protection to reduce erosive energy of rainfall during early winter, and the use of silt fencing to reduce the transport of sediment off-site or into storm drains.

Implementation of the actions required under the Construction General Permit as well as the construction and post-construction requirements of MCSTOPPP, would prevent the discharge of pollutants to surface waters or groundwater and minimize or eliminate potential degradation of surface water or groundwater quality; this would result in less-than-significant impacts to water quality.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
d) Substantial change in the amount of surface water in any water body or ground water either through direct additions or withdrawals, or through intersection of an aquifer by cuts or excavations? (source #: 9)	[ ]	[ ]	[X]	[ ]

The Project would not involve long-term groundwater extraction. Project construction of utilities and foundations would involve subsurface excavation, but it is unlikely that such excavations would intercept shallow groundwater as no groundwater was encountered in the nine investigatory borehole drilling for the geotechnical investigation, which were done in January of a wet year (GEOCON 2015). Additionally, surface waters, including ponds and marshes, are not present on or upgradient of the Project site. If shallow groundwater were encountered during excavation activities, it would have to be pumped out of the excavated area to create a dry work area. If construction dewatering was necessary, the applicants would be required to implement dewatering BMPs under MCSTOPPP to avoid discharging pollutants or sediment to surface water. Such dewatering activity would be short-term and temporary, occurring within the dry-season grading and foundation construction window. Because of its short-term nature and because there is limited groundwater underlying the site, construction dewatering would not affect groundwater levels or volumes. Therefore, impacts relating to substantial changes in the amount of groundwater through direct additions or withdrawals or through intersection of an aquifer by cuts or excavations would be less than significant.

Surface water diversions are not proposed as part of the Project. Impacts related to substantial changes to surface water bodies resulting from direct withdrawals, or as a result of intercepting and diverting groundwater that replenishes surface water features (such as seeps, springs, or ponds), would be less than significant.

For detailed discussion of the potential for the Project to result in an increased rate of stormwater runoff which could be discharged to the drainage channel tributary to San Rafael Creek, please see Section (a), above. As described in that section, bio-retention ponds would minimize the change in peak runoff.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
e) Substantial changes in the flow of surface or ground waters, including, but not necessarily limited to: 1) currents; 2) rate of flow; or 3) the course or direction of water movements?	[ ]	[ ]	[X]	[ ]

As described in Sections (a) and (d) above, the Project would not result in substantial changes to groundwater volume, subsurface flow patterns, or availability. Additionally, as described in Section (a), above, post-construction stormwater runoff during the 100-year design storm would increase 7 percent, however there would be no increase in off-site peak runoff because of the Project's bioretention basins. Therefore this impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
f) Substantial reduction in the amount of water otherwise available for public water supplies? (sources #: 9, 19, 20)	[ ]	[ ]	[X]	[ ]

The proposed Project would not require a potable water supply from a private production well that extracts water from a multiple-user groundwater aquifer nor would it require a water supply that relies on a private or community-managed reservoir.

The proposed developments on the Project site are within the service area of the Marin Municipal Water District (MMWD). MMWD serves approximately 190,000 customers from a network of seven local, rain-fed reservoirs as well as water imported from the Russian River and purchased from the Sonoma County Water Agency (RMC, 2016). Water within the district's service area is largely used for single- and multi-family residential homes, which make up 75 percent of the district's total demand. Despite growth, district-wide water use has steadily decreased through MMWD programs for demand management and conservation (RMC, 2016). The Urban Water Management Planning Act requires that urban water suppliers providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet (AF) of water annually, prepare and adopt an Urban Water Management Plan (UWMP). These Plans must report, describe, and evaluate water deliveries and uses, water supply sources, efficient water uses, and demand management measures. MMWD, as an urban water supplier, has prepared the 2015 UWMP, which assesses existing water supplies, and which Projects water demands and supplies in the MMWD service area over the next 25 years (RMC, 2016). The UWMP considers reliability of the supply, current and planned water conservation activities, water shortage contingency analyses, and consideration of water supply in the context of varying hydrologic conditions (e.g., multiple dry years). Additionally, MMWD has completed a water resources plan that assesses supply reliability through the year 2040 under conditions that severely threaten water supply reliability and resiliency, such as prolonged drought and climate change impacts on water supply, earthquakes, water quality events, and wildfires (RMC, 2017).

At full build-out, the proposed Project would add eight single family homes (six attached and two detached), and would slightly increase potable water demand. Such an increase is considered as part of future water demand planning conducted by MMWD and is accounted for in future water resource supplies. As described in the 2015 UWMP, conservation and demand management form critical aspects of water supply management

and sustainability strategies, and through working with the community, MMWD has successfully reduced demand while the population in Marin has increased.

Currently, as detailed by MMWD regarding water supply and availability for Residential Lot 049-041-42 (MMWD, 2016), and applicable to each of the ten residential lots on the Project site, these parcels are currently not served by MMWD and no water is currently allocated for the Project. To meet the conditions for service by MMWD, properties are required to be fronted by a water main. Additionally, properties would only be eligible for water service upon fulfillment of the following requirements:

- Completion of a Water Service Application
- Submission of building permit along with fees and charges.
- Completion of structure's foundation within 120 days of the application date.
- Demonstration of compliance with MMWD rules and regulations applicable at time service is requested.
- Demonstration of Compliance with MMWD Code Title 13 – water conservation (described in detail below). This includes review and approval of landscape plan, irrigation plan, grading plan, and verification of indoor fixtures compliance.
- Demonstration of MMWD backflow prevention requirements.
- Demonstration of compliance with MMWD Ordinance No. 429 (described in detail below), which requires installation of gray water recycling systems when practicable for all projects required to install new water service.

The MMWD Code contains a water shortage ordinance (Ordinance No. 414 amending Title 13 of the MMWD Code) that applies during dry periods and includes provisions for water conservation plans, water waste prohibition, and water use budgets. The MMWD Code also contains several water conservation measures that would apply to the proposed Project under Title 13 of the MMWD Code. These required conservation measures include water pressure regulating valves, high efficiency interior plumbing fixtures, and requirements for landscaping that maximize the efficiency of irrigation. The MMWD Code pertaining to Water Efficient Landscape requirements, which would apply to the proposed Project, would require the applicants to submit a Landscape Design Plan that complies with requirements for soil amendments, mulching, and soil conditioning. The requirements also regulate plant selection and grouping, and require irrigation devices such as rain sensors and point source and low-volume irrigation controls. Landscape Design Plans must be accompanied by a calculated Maximum Applied Water Allowance worksheet, which helps determine a site-specific water budget and establishes a planting mix that, by design, would meet the water budget. Compliance with the MMWD's landscape requirements would be verified during the building permit review for each residential lot. Upon installation of landscaping applicants would submit a Certificate of Completion and a final inspection would be conducted by district staff. Additionally, Ordinance 429 of the MMWD Code requires applicants for a new water service connection (or an enlarged water service associated with residential and commercial remodels), to install a gray water recycling system to reuse the maximum practicable amount of gray water on site. Ordinance 429 is a part of the on-going effort to reduce district wide water use

and ensure supply reliability over the future, considering projected population growth in Marin.

The MMWD is pursuing multiple strategies to meet projected future water demand, with a priority to increase water conservation and minimize wasteful use. As described above, new residences constructed under the proposed Project, along with other existing and future residential uses within the district, would be required to comply with conservation measures and if necessary, mandated use reduction as described in the MMWD Code. Such measures have enabled MMWD to reduce demand over time.

Given that the Project would be supplied by the MMWD and that the need for additional water supply to support future demand and growth has been considered in the District's UWMP, the Project would not result in a substantial reduction in the amount of water available for public water supplies, and the impact would be less than significant.

5. AIR QUALITY.

Would the proposal:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Generate substantial air pollutant emissions that could conflict with or obstruct implementation of the applicable air quality plan? (sources #: 20-29)	[ ]	[ ]	[X]	[ ]

Ozone and suspended particulate matter (i.e., two types of the latter - particulate matter less than ten microns in diameter [PM_{10}] and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]) are of particular concern as air pollutants. The Bay Area is currently designated "nonattainment" for state and national ozone standards, for the state PM_{10} standards, and for state and national $PM_{2.5}$ standards; it is "attainment" or "unclassified" with respect to ambient air quality standards for the other major air pollutants. The Bay Area Air Quality Management District (BAAQMD) maintains a number of air quality monitoring stations, which continually measure the ambient concentrations of major air pollutants throughout the Bay Area. The closest such monitoring station to the Project site is at 534 4th Street in San Rafael, about a mile to the northeast. The data collected show violations of the $PM_{2.5}$ particulate standard on at most a few days per year over the last three years, see Table 5-1.

The air quality analysis addressing this Initial Study checklist item were performed using the methodologies and significance thresholds recommended in *CEQA Air Quality Guidelines* (*Guidelines*; BAAQMD, May 2017, Table 2-1). The air pollutants evaluated are: reactive organic compounds (ROG) and nitrogen oxides (NO_x) (both precursors to ozone formation), PM_{10} and $PM_{2.5}$.

According to the *Guidelines*, any Project would have a significant potential for contributing to a local air quality standard violation or making a cumulatively considerable contribution to a regional air quality problem if its pollutant emissions would exceed any of the thresholds presented in Table 5-2 during construction or operation.

The *Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to the CEQA significance thresholds. For this, the California Emissions Estimator Model (CalEEMod, Version 2016.3.2) was used. Table 5-3 shows the estimated exhaust air-pollutant emissions for all Project phases from construction equipment, haul/delivery trucks and worker commute vehicles and comparisons with the BAAQMD CEQA significance thresholds.

The CalEEMod model default initial settings assume that all site preparation/grading activities for a small residential development (i.e., 2 single-family residential units and 6 multi-family residential units) would occur over a short period during the initial stages

of construction (i.e., 6 work days during the first weeks of construction). But the proposed Project includes plans for the removal of 7645 cubic yards of rock/soil from the site, requiring an estimated 640 haul truck loads over a period of 4-6 months. CalEEMod was modified to include these project-specific settings for the site preparation/grading phase, but model default settings were left unchanged for all other project construction phases. Daily emissions of major air pollutants from Project construction activities would be below all the CEQA significance thresholds, as shown in Table 5-3.

Table 5-1. Local Ambient Air Quality Monitoring Summary

Pollutant	Air Quality Standard	Maximum Concentrations and Number of Days Standards Exceeded		
		2015	2016	2017
Ozone				
Maximum 8-hour concentration (ppm)		70	67	63
# Days 8-hour California standard exceeded	70 ppb	0	0	0
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppb)		44	46	53
# Days national 1-hour standard exceeded	100 ppb	0	0	0
Suspended Inhalable Particulates (PM_{10})				
Maximum 24-hour concentration ($\mu g/m^3$)		42	27	94
# Days national 24-hour standard exceeded	150 $\mu g/m^3$	0	0	0
Suspended Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration ($\mu g/m^3$)		36.3	15.6	74.7
# Days national 24-hour standard exceeded	35 $\mu g/m^3$	2	0	8

Notes:
As monitored at the BAAQMD station at 534 4th Street in San Rafael.
µg/m3 = micrograms per cubic meter
ppb = parts per billion.
Source: BAAQMD Annual Bay Area Air Quality Summaries http://www.baaqmd.gov/about-air-quality/air-quality-summaries

Table 5-2. Air Quality Significance Thresholds for Air Pollutant Emissions

Pollutant	Construction Average Daily (lbs./day)	Operational	
		Average Daily (lbs./day)	Maximum Annual (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Oxides of Nitrogen (NO_x)	54	54	10
Inhalable Particulate Matter (PM_{10})	82 (exhaust)	82	15
Fine Inhalable Particulate Matter ($PM_{2.5}$)	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (Fugitive Dust)	BMPs[a]	N/A	N/A

Notes: BMPs = Best Management Practices. N/A = Not Applicable

[a] If BAAQMD Best Management Practices (BMPs) for fugitive dust control are implemented during construction, the impacts of such residual emissions are considered to be less than significant.

Source: Bay Area Air Quality Management District, May *2017, CEQA Air Quality Guidelines*.

Table 5-3. Project Construction Pollutant Emissions (Maximum Pounds per Day)

Year	Phase	ROG	NOX	PM10 (exhaust)	PM2.5 (exhaust)
		lbs./day			
2019	Peak Daily Total	13.8	39.0	1.8	1.7
	Significance Thresholds	**54**	**54**	**82**	**54**
	Significant Impact?	**No**	**No**	**No**	**No**

CalEEMod was also used to estimate Project operational air pollutant emissions (i.e., those emitted by its motor vehicle use, space and water heating, maintenance equipment use, etc.) in the year 2020 after Project construction is complete. The CalEEMod emission estimates are based on the project-specific land use type (i.e., 2 single-family residential units and 6 multi-family residential units). Estimated operational daily and annual emissions are presented in Tables 5-4 and 5-5 and would be below the CEQA thresholds for all major pollutants.

Table 5-4. Project Net New Operational Criteria Pollutant Emissions - Year 2020 (pounds per day)

Emission Category	ROG	NOx	PM_{10}	$PM_{2.5}$
Area	4.8	0.1	0.9	0.9
Energy	< 0.1	0.1	< 0.1	< 0.1
Mobile	0.1	0.3	0.3	0.1
Total Project	**4.9**	**0.5**	**1.1**	**0.9**
Significance Thresholds	**54**	**54**	**82**	**54**
Significant Impact?	**No**	**No**	**No**	**No**

Table 5-5. Project Net New Operational Criteria Pollutant Emissions - Year 2020 (tons per year)

Emission Category	ROG	NOx	PM_{10}	$PM_{2.5}$
Area	0.1	< 0.1	< 0.1	< 0.1
Energy	< 0.1	< 0.1	< 0.1	< 0.1
Mobile	< 0.1	0.1	< 0.1	< 0.1
Total Project	**0.1**	**0.1**	**< 0.1**	**< 0.1**
Significance Thresholds	**10**	**10**	**15**	**10**
Significant Impact?	**No**	**No**	**No**	**No**

The BAAQMD Guidelines also require that all construction projects implement Best Management Practices (BMPs) to control fugitive dust. The Marin County Development Code, Section 22.20.040 (B) includes similar measures. Thus, under these two regulations, the following measures must be implemented by the Project construction contractor:

BAAQMD and Marin County Required Dust Control Measures: The construction contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved surfaces shall be limited to 15 miles per hour.

- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California of Regulations). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified emissions evaluator.

- A publicly visible sign shall be posted with the telephone number and person to contact at Marin County Planning regarding dust complaints. This person shall respond and take corrective action with 48 hours. The BAAQMD's phone number shall also be included to ensure compliance with applicable regulations.

b) Expose sensitive receptors to substantial pollutant concentrations? (sources #: 20-29)	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[X]**	**[ ]**	**[ ]**

According to the BAAQMD, Marin County is a distinct climatological sub-region of the Bay Area air basin. The air pollution potential is highest in eastern Marin where most of its population resides. In the southeast, where the influence of marine air is greatest, air pollutant levels are relatively low, but they increase as one moves north and the marine influence decreases. Marin County has few large-scale air polluting industries, rather most of the air pollutants affecting its population come from motor vehicles — especially from traffic using Highway 101 and the connecting major arterial roadways.

Many chemical compounds, generally termed toxic air contaminants (TACs), pose a present or potential hazard to human health through airborne exposure. A wide variety of sources, stationary (e.g., dry cleaning facilities, gasoline stations, and emergency diesel-powered generators, etc.) and mobile (e.g., motor vehicles, construction equipment, etc.), emit TACs. The health effects associated with TACs are quite diverse. TACs can cause adverse health effects from long-term exposure (e.g., cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage) and/or from short-term exposure (e.g., eye watering, respiratory irritation, running nose, throat pain, and headaches). Most of the estimated carcinogenic/chronic health risk can be attributed to relatively few airborne compounds, the most important being particulate matter from diesel-fueled engines (DPM). The California Air Resources Board

(CARB) has identified DPM as being responsible for about 70 percent of the cumulative cancer risk from all airborne TAC exposures in California.

The *Guidelines* establish a relevant zone of influence for an assessment of project-level and cumulative health risk from TAC exposure to an area within 1,000 feet of a Project site. Project construction-related or Project operational TAC impacts to sensitive receptors within the zone that exceed any of the following thresholds are considered significant:

- An excess cancer risk level of more than 10 in one million
- A non-cancer hazard index greater than 1.0.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) for annual average $PM_{2.5}$ concentrations.

Cumulative impacts from TACs emitted from freeways, state highways or high-volume roadways (i.e., the latter defined as having traffic volumes of 10,000 vehicles or more per day or 1,000 trucks per day), and from all BAAQMD-permitted stationary sources within the zone to sensitive receptors within the zone that exceed any of the following thresholds are considered cumulatively significant:

- A combined excess cancer risk levels of more than 100 in one million.
- A combined non-cancer hazard index greater than 10.0.
- A combined incremental increase in annual average $PM_{2.5}$ concentrations greater than 0.8 $\mu g/m^3$.

Cancer risk is the probability of developing cancer from a lifetime exposure (i.e., 70 years) to carcinogenic substances. This health risk assessment (HRA) followed guidelines established by the California Office of Environmental Health Hazard Assessment (OEHHA 2015) and the BAAQMD (2012). The likelihood of other adverse chronic health impacts unrelated to cancer are measured using a hazard index (HI) defined as the ratio of a project's incremental annual TAC concentration to a published reference exposure level (REL) as determined by OEHHA (which for DPM is 5 µg/m3). Project incremental cancer risks and HI were estimated by applying established DPM toxicity factors to the construction equipment exhaust DPM concentrations estimated by the SCREEN3 model (Lakes Environmental).

As shown in Table 5-6, the cancer risk from Project construction DPM at the existing adjacent residential uses most exposed to TACs from Project construction would be 8.17 additional cancer cases per million people exposed, which is below the project-level CEQA threshold for cancer risk. The HI from Project construction DPM would be 0.21, which is well below the BAAQMD threshold for chronic hazard. But the modeled annual $PM_{2.5}$ concentration from Project construction would be 1.06 µg/m3, which substantially exceeds the BAAQMD's Project-level CEQA threshold (0.3 $\mu g/m^3$). Implementation of Mitigation Measure AQ-1, below, would assure that annual average $PM_{2.5}$ concentrations at the existing adjacent residential receptors due to Project construction would be well below the CEQA $PM_{2.5}$ threshold (and would substantially reduce cancer risk and chronic hazard, as well), as also shown in Table 5-6.

After it is operational, the Project would not include substantial stationary TAC emission sources nor add substantial mobile TAC emission sources (i.e., by BAAQMD definition, daily incremental traffic volumes of 10,000 or greater) to local streets. The cumulative TAC exposure circumstances are considered below for health risks and hazards to the existing local residential uses and to the new residential uses introduced by the Project.

The Project site is located in an unincorporated area of Marin County adjacent to and west of Highway 101; it is south of the City of San Rafael, but City lands surrounds it on three sides - west, north and east. To the north and east of Highway 101 across from the Project site, the predominant land use is commercial/industrial containing various stationary industrial/commercial air pollution sources that are large enough to require BAAQMD operating permits. But none of these stationary pollutant sources are within 1000 feet of the Project site. In contrast, Highway 101 passes within a hundred feet east of the Project site and is the major local source of air pollutants that would affect future residents. The health risks/hazards and the small-diameter particulate concentrations that currently affect existing adjacent residential uses are presented in Table 5-6. The cumulative cancer risks, hazard indices, and $PM_{2.5}$ concentrations from the existing TAC sources are all below the BAAQMD cumulative risk thresholds. Therefore the cumulative health risk impact would be less than significant.

Table 5-6. Project and Cumulative TAC Impacts on Existing Sensitive Receptors in the Project Site Vicinity

BAAQMD Source #	Facility	Address	Cancer Risk	Hazard Index	$PM_{2.5}$ Concentration
From Permitted Stationary TAC Sources					
	None are with 1000 feet of the Project site		----	----	----
From Major Roadways*					
Highway 101 (~75 feet west of Project site at closest approach)			28.0	0.03	0.29
From Project**					
Project Construction Impacts before Mitigation			8.17	0.21	**1.06**
Project-Level Significance Thresholds			10	1.0	0.3
Significant Project-Level Impact before Project Mitigation?			No	No	**Yes**
Project Construction Impacts after Project Mitigation			1.22	0.03	0.16
Significant Project-Level Impact after Mitigation?			No	No	No
From Cumulative Sources					
Cumulative Sources Impact after Project Mitigation			36.17	0.06	0.45

BAAQMD Source #	Facility	Address	Cancer Risk	Hazard Index	$PM_{2.5}$ Concentration
Cumulative Significance Thresholds			100	10	0.8
Significant Cumulative Impact after Mitigation?			No	No	No

*The BAAQMD's Highway Screening Analysis Tool and Roadway Screening Analysis Calculator were used to estimate maximum cancer risks, hazard indexes, and $PM_{2.5}$ concentrations at the closest existing residences to the Project site.
**The Project construction risk, hazard and $PM_{2.5}$ increments, as estimated by the SCREEN3 model, are reduced by more than 80 percent, to a less-than-significant level relative to the CEQA $PM_{2.5}$ project-level significance threshold, by requiring that Project construction equipment have at least EPA-rated Tier 4 engines or Level 3 diesel particulate filters (Mitigation Measure AQ-1).

The new residential receptors introduced to the site by the Project would be exposed to DPM and other TACs, and $PM_{2.5}$ from motor vehicles traveling on Highway 101. Such exposures would exceed or closely approach the project-level cancer risk and PM2.5 significance thresholds. While impacts to sensitive receptors introduced by a project are generally not required to be analyzed or mitigated under CEQA, implementation of the following measure would assure that the cancer risk and annual average $PM_{2.5}$ concentrations inside the Project's residential units would be below the BAAQMD's CEQA significance thresholds:

- The Project residential buildings shall be fitted with an air filtration system with a minimum efficiency reporting value (MERV) as specified by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) of 13 or greater to provide indoor air with an 80 percent or greater reduction of outdoor PM2.5 and DPM.

Mitigation Measures

Mitigation Measure AQ-1. The Project construction contractor shall implement the following measures to further reduce construction-related DPM exhaust emissions:

All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

- All engines shall meet or exceed USEPA/CARB Tier 4 off-road emission standards; or
- All engines shall be equipped with a CARB Level 3 Verified Diesel Emissions Control Strategy (VDECS) device.

Monitoring Measure AQ-1. Before issuance of a Building Permit, the CDA shall confirm with DPW that construction vehicle emissions specifications (Tier 3 or 4 equipment) have been incorporated into Project plans and/or conditions of approval.

Significance With Mitigation

This mitigation measure would reduce health risks associated with $PM_{2.5}$ to a less-than-significant level.

c) Alter air movement, moisture, or temperature?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project would introduce new low-rise residential uses to the site. They would be similar in scale and density to the existing low-rise residential uses that surround the site. As such, they would not have the capability to substantially alter air movement, temperature or other local climate features on or near the site. The Project would not result in a significant impact related to this issue.

d) Create objectionable odors?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

As a low-rise residential development, Project operation would not introduce substantial sources of odor emissions to the area. However, the Project's diesel-powered construction equipment would emit odorous exhaust that could impact existing local residents. Since the Project construction activities would be temporary and would occur in a low-density residential area with few and widely dispersed odor-sensitive receptors, construction emissions would not affect a substantial number of people, nor be substantially objectionable to any particular receptor over extended periods while construction is underway. The project would not result in a significant odor impact.

6. GREENHOUSE GAS EMISSIONS.

Would the proposal:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (sources #: 30, 31)	[ ]	[ ]	[X]	[ ]

Greenhouse gases (GHGs) are atmospheric gases that capture and retain a portion of the heat radiated from the earth after it has been heated by the sun. The primary GHGs are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), ozone, and water vapor. While GHGs are natural components of the atmosphere, CO_2, CH_4, and N_2O, are also emitted in substantial quantities from human activities and their accumulation in the atmosphere over the past 200 years has substantially increased their concentrations. This accumulation of GHGs has been implicated as the driving force behind global climate change.

Human emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with organic decay processes in agriculture, landfills, etc. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated by certain industrial processes. The global warming potential of GHGs are typically reported in comparison to that of CO_2, the most common and influential GHG, in units of "carbon dioxide-equivalents" (CO_2e).

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air Basin. As part of that role, the BAAQMD has prepared *CEQA Air Quality Guidelines* that provide CEQA thresholds of significance for operational GHG emissions from land use projects (i.e., 1,100 metric tons of CO_2e per year, which is also considered the definition of a cumulatively considerable contribution to the global GHG burden and, therefore, of a significant cumulative impact), but has not defined thresholds for project construction GHG emissions. The *Guidelines* methodology and thresholds of significance have been used in this Initial Study's analysis of potential GHG impacts associated with the Project.

The CalEEMod model was used to quantify GHG emissions associated with Project construction activities (for informational purposes), as well as long-term operational

emissions produced by Project motor vehicles, energy and water use, and solid waste generation. CalEEMod incorporates GHG emission factors for motor vehicles, electricity from central electric utilities, and water use and solid waste generation.

The estimated construction GHG emissions are 261.2 metric tons of CO_2e (for which there is no BAAQMD CEQA significance threshold). The Project's estimated operational GHG emissions are presented in Table 6-1. The Project's GHG operational emissions would be 77.8 metric tons per year, which is substantially below the BAAQMD threshold of 1100 metric tons. Therefore Project greenhouse gas emissions would be less than significant.

Table 6-1: Project Operational Greenhouse Gas Emissions (Metric Tons Per Year)

Project GHG Source	CO_2	CH4	N2O	CO2e
Area	0.8	< 0.1	< 0.1	0.8
Energy Use	25.2	< 0.1	< 0.1	25.3
Motor Vehicles	47.1	< 0.1	< 0.1	47.1
Solid Waste Disposal	1.1	0.1	0	2.7
Water Use	1.3	< 0.1	< 0.1	1.9
Total	**75.4**	**0.1**	**< 0.1**	**77.8**
Significance Thresholds				**1100**
Significant Impact?				**No**

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (sources #: 30, 31)	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[ ]**	**[X]**	**[]**

The proposed Project would not conflict with certain GHG reduction goals set forth in AB 32, including the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan. The Project would also not conflict with goals and policies contained in the Marin Countywide Plan and Climate Action Plan. The Project would be required to obtain building permits for construction, which would ensure compliance with all Title 24 and the Marin County Green Building Ordinance requirements. The Project would not result in a significant impact related to this issue.

Assembly Bill 32 (AB32), the California Global Warming Solutions Act, requires the CARB to lower State GHG emissions to 1990 levels by 2020—a 25% reduction statewide with mandatory caps for significant GHG emission sources. AB32 directed CARB to develop discrete early actions to reduce GHG while preparing the Climate Change Scoping Plan in order to identify how best to reach the 2020 goal. Statewide strategies to reduce GHG emissions to attain the 2020 goal include the Low Carbon Fuel Standard (LCFS), the California Appliance Energy Efficiency regulations, the California Renewable Energy Portfolio standard, changes in the motor vehicle corporate average fuel economy (CAFE) standards, and other early action measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32.

The BAAQMD's *Spare the Air, Cool the Climate* (2017 Plan), focuses on two closely-related goals: protecting public health from air pollutant exposures and protecting the climate. Consistent with the GHG reduction targets adopted by the State of California, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

The 2017 Plan defines an integrated, multipollutant control strategy to reduce emissions of particulate matter, toxic air contaminants (TACs), ozone precursors and greenhouse gases (GHG).

The 2017 Plan control strategy is based on four key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon and fluorinated gases.
- Decrease demand for fossil fuels (i.e., gasoline, diesel and natural gas).
  - Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
  - Make the electricity supply carbon-free.
  - Electrify the transportation and building sectors.

The State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. CALGreen provides the minimum standard that buildings need to meet in order to be certified for occupancy, but does not prevent a local jurisdiction from adopting a more stringent requirements. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption.

The *Marin County Climate Action Plan 2015 Update* specifies additional actions beyond those required by AB32 that the County will take to further reduce emissions by 2020. Its Community Emissions Reduction Target commits to a goal to reduce GHG emissions from community activities in unincorporated areas of Marin County by at least 30% below 1990 levels by 2020.

The proposed Project would not conflict with the GHG reduction goals set forth in AB 32. The Project would be required to obtain building permits for construction, which would ensure compliance with CALGreen and the Marin County Green Building Ordinance. The Project would also not conflict with goals and policies contained in the Marin County Climate Action Plan, and no impact would result.

7. TRANSPORTATION / CIRCULATION.

Would the proposal result in:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Substantial increase in vehicle trips or traffic congestion such that existing levels of service on affected roadways will deteriorate below acceptable County standards? (sources #: 32-37)	[ ]	[ ]	[X]	[ ]

A Draft Transportation Impact Study (TIS) was prepared for the Project (Wood Rodgers, July 2018). This study had been peer-reviewed by Pang Ho Associates, Transportation Consultants (PHA), in October 2018. PHA prepared comments on the Draft TIS and the study was revised in response to those comments in an April 2019 Draft TIS. PHA and the County Public Works Department both reviewed the April 2019 TIS and found it complete and adequate. The following discussion is based on the peer-reviewed and accepted TIS.

Project Construction

Project construction would generate short-term increases in vehicle trips by construction workers and construction vehicles on roadways near the Project site, including Auburn Street and Albion Street. Construction-generated traffic would be temporary and therefore would not result in long-term degradation of operating conditions (level of service or delay) on Project area roadways. The primary impacts resulting from the movement of construction trucks would include a short-term and intermittent lessening of roadway capacities due to the slower movements and larger turning radii of the trucks compared to passenger vehicles.

Traffic-generating construction activities would consist of the daily arrival and departure of personnel (construction work crews and supervisory staff); trucks hauling equipment and materials to the worksites; and the off-hauling of excavated spoils from the Project site.

Approximately 7,885 cubic yards of material would be cut from the site, and about 240 cubic yards (cy) of fill would be placed, resulting in the need to off-haul 7,645 cubic yards of earthen materials. At 12 cy/truck, this would require approximately 640 truckloads of material. Retaining walls would be constructed along the sides and behind the attached structures on Lots 7 and 8, and along the new driveway accessing lots 1 and 2. The houses proposed for Lots 1 and 2 would be on stilts, and would not require substantial grading or retaining walls. Therefore, most of this material would be

excavated and hauled from the lower part of the site, with the trucks using Auburn Street. Minimal off-haul is proposed on the Albion Street part of the project.

The number of construction-related trips associated with construction workers would be small – fewer than 20 one-way trips/day. Trucks hauling excavated material would be spread out throughout the day. Approximately 23 truck trips/day would occur, resulting in up to 3 truck trips during each of the peak traffic hours. Project-generated truck trips would be dispersed throughout the day, and construction workers typically commute to and from work sites before or after peak traffic hours.

The anticipated increase in traffic volumes caused by Project-generated construction traffic on local and regional roadways would not be substantial relative to background traffic conditions (i.e., would tend to fall within the daily fluctuation of traffic volumes on those roads).[2] Project construction traffic would not significantly disrupt traffic flow on these roadways, though drivers could experience delays if they were traveling behind a construction truck. Traffic volume increases caused by Project construction would be most noticeable on Auburn Street, but the increased traffic volumes are expected to remain at levels less than the carrying capacity of the road, and the impact would be less than significant.

Project Operation

Following completion of the Project, the eight new homes, once occupied, would generate new vehicle trips, adding traffic to local and regional roads. This TIS report analyzed three study intersections under "Existing" and "Existing plus Project" AM and PM peak hour conditions. Study intersections were chosen based on discussion with Marin County (County) staff. Highway Capacity Manual 2010 based analysis was performed using Synchro software. California Manual on Uniform Traffic Control Devices based peak hour signal Warrant #3 (urban areas) was also checked for unsignalized study intersections. Level of Service standards and significant impact criteria used in this TIS were based on CMP guidelines.

Intersections were selected for analysis based on coordination with Marin County staff and prior Traffic Impact Studies prepared for previous iterations of the Project. The list of study intersections was reviewed and approved by County staff prior to preparation of the TIS. The following three study intersections were analyzed in this TIS:

1. Auburn Street/Albion Street

2. Auburn Street/Woodland Avenue

3. Woodland Avenue-Bellam Boulevard/Andersen Drive

The TIS considers Project impacts at signalized intersections to be significant if one or both of the following criteria are met:

[2] Day-to-day traffic volumes typically vary by as much as 10 percent (i.e., +5 percent), and an increase of less than that is unlikely to be perceptible to the average motorist.

1. If the addition of Project generated traffic to an intersection causes the AM or PM peak hour LOS of the intersection to degrade from an acceptable LOS "D" or better to an unacceptable LOS "E" or worse.

2. If an intersection operates at an unacceptable AM or PM peak hour LOS "E" or worse without the addition of project generated traffic, and the addition of project generated traffic increases the average control delay for critical movements by five or more seconds.

Project trip generation was estimated at 44 daily trips from the six attached units and 19 daily trips from the two new detached units, for a total of 63 trips/day. Five trips would occur in the AM peak hour, and six in the PM peak hour.

The existing and post-project intersection operations are shown on table 7-1, below.

Table 7-1. Existing and Post-Project Intersection Operations

Intersection	LOS Criteria	Peak Hour	Existing LOS	Post-Project LOS
Auburn Street/Albion Street (stop sign on Albion)	D	AM	A	A
		PM	A	A
Auburn Street/Woodland Avenue (stop signs on both streets)	D	AM	B	B
		PM	C	C
Woodland Avenue-Bellam Boulevard/Andersen Drive (signalized)	D	AM	D	D
		PM	C	D

All study intersections are projected to operate at acceptable LOS "D" or better under "Existing" and "Existing plus Project" AM and PM peak hour conditions. A signal-warrant analysis was also performed for the two stop-sign controlled intersections was not found to be met at study-area unsignalized intersections. The Project was found to have "less than significant" impacts on all three study intersections and the Albion Street roadway segment under "Existing plus Project" AM and PM peak-hour conditions. Additionally, Project driveways were evaluated for queuing distance, and were determined to have adequate distances. Therefore, this impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Traffic hazards related to: 1) safety from design features (e.g. sharp curves or dangerous intersections); 2) barriers to pedestrians or bicyclists; or 3) incompatible uses (e.g. farm equipment)? (sources #: 32-35)	[ ]	[ ]	[X]	[ ]

The Transportation Impact Study addressed adequacy of sight distances at Project driveways accessing Albion and Auburn Streets. As part of this study, directional speed surveys were performed at the locations of the proposed Project Driveways along Auburn Street and Albion Street. This data was used to analyze sight distance at both Project Driveways. Multiple sight distance analyses were performed based on the AASHTO Green Book for each Project driveway.

In the analysis below, "Intersection Sight Distance" refers to the distance a vehicle stopped on the minor leg of an intersection (in this case the driveway) needs to be able to see along the major (perpendicular) leg of the intersection (in this case the street) to be able to complete their movement without unduly interfering with major road traffic operations. "Stopping Sight Distance" refers to the distance a vehicle along the major (perpendicular) leg of the intersection (in this case the street) needs to be able to see an obstacle in front of them (in this case a vehicle entering the street from the driveway or turning into the driveway) in order to stop in time to avoid a collision.

Section 9.11.6 of the AASHTO Green Book states the following regarding driveways:

> "It is desirable that they [driveways] be designed and located to meet criteria for intersection sight distance and other design elements set forth in this chapter. However, where this is not practical, they should be located to provide the best reasonable sight distance and meet other design criteria to the extent practicable considering such factors as functional class, speed, and traffic volume of the roadway relative to the volume and type of vehicles using the driveway."

Based on the language contained in Section 9.11.6 of the AASHTO Green Book quoted above, as well as discussion with Marin County, low volume residential driveways within Marin County are required to meet minimum stopping sight distances, but not intersection sight distances. While it is desirable that driveways meet intersection sight distance criteria where feasible, intersection sight distance criteria are primarily intended for high-volume intersections (public roadways, high-volume commercial driveways, etc.).

Intersection sight distance requirements for left and right-turn egress at both the Multi-Family and Single-Family Residential Driveways are based on the ability of a stopped vehicle within the throat of the driveway to make a left or right turn without unduly interfering with the major road traffic operations. Stopping sight distance for vehicles

traveling along Auburn Street and Albion Street are projected to be met at both driveways, indicating that, under typical roadway conditions, should a vehicle make a left or right-turn egress movement from the driveways, an oncoming vehicle traveling along the major road at the measured 85th percentile speed should have enough distance to come to a complete stop before reaching the vehicle exiting the driveway.

For the Multi-Family Residential Driveway, left-turn egress intersection sight distance requirements were not met due to a tree and the curvature of Auburn Street to the east of the proposed driveway, and the curvature of Auburn Street to the west of the proposed driveway and retained slope located at the back of the sidewalk on the south side of Auburn Street fronting the Project site. The peak hour 85th percentile speeds for both eastbound and westbound Auburn Street were measured to be 29 mph, higher than the posted speed limit of 25 mph. However, minimum intersection sight distance requirements for speeds between 15 mph and 25 mph would still exceed the available sight distance for left-turn egress at this driveway. As sight distance limitations are due to existing offsite roadway geometry, structures, and vegetation, it is not feasible to make improvements at this location that would allow AASHTO Green Book intersection sight distance requirements for left-turn egress to be met. However, as discussed above, for low-volume intersections, meeting intersection sight distances is not required and the impact of not meeting it is not significant. Adequate sight distance for all other cases at this driveway is projected to be available. Therefore this impact would be less than significant.

Existing trees along the north side of Albion Street directly east of the proposed Single Family Residential Driveway would inhibit sight distance between a vehicle on Albion Street and a vehicle exiting the driveway. With the removal of these trees, the egress sight distance would meet sight distance requirements. Therefore, this TIS recommends the existing trees directly east of the proposed Single Family Residential Driveway be removed. With removal of the trees directly east of the proposed Single Family Residential Driveway, both Project Driveways are projected to meet all stopping sight distance requirements as defined in the AASHTO Green Book and required by Marin County. Therefore this impact would be less than significant. The applicant has revised the Project plans to show the tree removal. Impacts of tree removal are addressed in the Biological Resources section of this document.

Currently, Albion and Auburn Streets have intermittent sidewalks and no bicycle lanes. The Project would not, however, create a barrier to pedestrians or bicyclists, and no impact on pedestrians or bicyclists would occur.

c) Inadequate emergency access or access to nearby uses? (sources #: 5, 6)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project plans include a Fire Access Exhibit. The Fire Marshall reviewed this Exhibit and has approved the driveway designs as providing adequate emergency access. Therefore this impact would be less than significant.

d) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Vehicle Miles Traveled)?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

As described in item a), above the Project would add about 63 daily trips. At an average of 10 miles/trip, about 630 VMT would occur daily. Most of those trips would be local, however some commute trips may occur. The Project site is about two miles from the downtown San Rafael transit center (which includes bus service and SMART train service) and about one mile from the Larkspur Ferry Terminal. In addition, bus service is available on Bellam Road at Francisco Boulevard, about half a mile from the site. Therefore, the site has good access to public transit, which would minimize trip lengths and VMT for transit users, and the Project would be generally consistent with CEQA Guidelines Section 15064.3 (b), and the impact would be less than significant.

8. BIOLOGICAL RESOURCES.

Would the proposal result in:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Reduction in the number of endangered, threatened or rare species, or substantial alteration of their habitats including, but not necessarily limited to: 1) plants; 2) fish; 3) insects; 4) animals; and 5) birds listed as special-status species by State or Federal Resource Agencies? (sources #: 38-42)	[ ]	[X]	[ ]	[ ]

Biological Resources Setting

A Biological Site Assessment (BSA) was prepared for the Project site by LSA in July 2018. The BSA was based on a site visit conducted on May 22, 2018, as well as a review of the California Natural Diversity Database (CNDDB) and a review of other literature sources. The BSA described the habitats occurring on the site and evaluated the potential of special-status plant and wildlife species to occur. Pacific Biology conducted a subsequent site visit on October 15, 2018 to further evaluate the biological resources occurring or potentially occurring on the Project site. The analysis presented in this section incorporates the results of the BSA (LSA 2018), supplemented, where appropriate, based on observations made by Pacific Biology's biologist.

The Project site is partially developed with two single-family homes, and is bordered to the east by Highway 101, to the west by single family homes, and to the north by Auburn Street and a school. The Project site generally slopes down to the north, with a large rock outcrop with a north-facing cliff being a prominent site feature. The exposed bedrock is fractured and extensively weathered shale (LSA 2018).

The habitats on the Project site have been degraded by the extent of surrounding development, with non-native plant species, including numerous escaped landscaping (i.e., cultivar) plant species, occurring. The herbaceous vegetation on the site is dominated by non-native grasses and other weedy plant species, including wild oat (*Avena fatua*), quaking grass (*Briza maxima*), Harding grass (*Phalaris aquatica*), annual ryegrass (*Festuca perennis*), Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis*), bristly ox-tongue (*Helminthotheca echioides*), giant reed (*Arundo donax*), and fennel (*Foeniculum vulgare*). Landscaping plants are also prevalent on the site, including several succulents (e.g., aloe, Mission cactus), Echium (*Echium* sp.), and belladonna lily (*Amaryllis belladonna*). Shrubs occur at scattered locations, including coyote brush (*Baccharis pilularis*), French broom (*Genista monspessulana*), and Himalayan blackberry (*Rubus armeniacus*). Coyote brush is a native shrub that commonly occurs in disturbed areas, while French broom is an invasive species.

Despite the disturbed condition of the site, some native herbaceous plants still occur, including localized occurrences of purple needlegrass (*Stipa pulchra*), California brome (*Bromus carinatus*), hayfield tarweed (*Hemizonia congesta* ssp. *lutescens*), clarkia (*Clarkia* sp.), and gold back fern (*Pentagramma triangularis*). The extent of native herbaceous plants on the site is limited and is not close to extensive enough to be considered a native grassland or other sensitive plant community. Therefore, there are no sensitive plant communities on the Project site.

There is a small area in the southwest corner of the site that contains a low-density of plants sometimes associated with wetlands, including Italian ryegrass, curly dock (*Rumex crispus*) and tall nutsedge (*Cyperus eragrostis*); there is a pipe immediately upslope of this area that appears to drain the nearby paved driveway. The soils in this area were inspected and did not contain any redox features or other indicators of wetland soil conditions. The soils mapped for the Project site are in the Tocaloma-McMullin-Urban land complex, 30 to 50 percent slope (USDA 2018), the natural drainage class is well drained, and this soil does not meet hydric criteria (LSA 2018). Additionally, there are numerous upland associated plant species in this area. Given the above, this area does not meet the criteria to be considered a jurisdictional wetland and there are no wetlands, creeks, or riparian areas on the Project site.

There are numerous native trees on the Project site, including 22 coast live oaks (*Quercus agrifolia*), 7 California bays (*Umbellularia californica*), and 7 California buckeyes (*Aesculus californica*) (ArborScience 2018). There are also trees that are not native to the Project area, including 3 jeffrey pines (*Pinus jeffreyi*), 1 ponderosa pine (*P. ponderosa*), 1 lodgepole pine (*P. contorta*), and 1 green wattle (*Acacia decurrens*) (ArborScience 2018).

Special-Status Wildlife Species

For the purpose of this evaluation, special-status wildlife species include those taxa listed or proposed for listing as Threatened or Endangered under the federal or state Endangered Species Acts, state or federal candidates for listing, state Species of Special Concern, state Fully Protected Species, federal Birds of Conservation Concern, and other species included on the California Department of Fish and Wildlife (CDFW) Special Animals List. [3]

Figure 6 shows the special-status wildlife species documented in the surrounding area. These and other special-status wildlife species known from the Project region are identified in Table 8-1, Special-Status Wildlife Species Known from Project Region, along with their regulatory status, habitat requirements, and an evaluation of their potential to occur on or near the Project site.

[3] The CDFW maintains a Special Animals List. "Special Animals" is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. The CDFW considers the taxa on this list to be those of greatest conservation need.

Figure 6

Documented Special-Status Species

Source: California Natural Diversity Data Base

Table 8-1: Special-Status Wildlife Species Known from the Project Region

Common Name *Scientific Name*	Status	General Habitat Description	Potential to Occur on Project Site
Reptiles			
Northwestern pond turtle *Actinemys marmorata*	CSC	Aquatic habitats including ponds, streams, and irrigation ditches. Requires basking sites such as partially submerged logs, vegetation mats, or open mud banks	**Not Expected**: There is no aquatic habitat on or easily accessible to the Project site. Based on the CNDDB, the species has not been documented within approximately 3.5 miles of the Project site.
Amphibians			
California giant salamander *Dicamptodon ensatus*	CSC	Larvae usually inhabit clear, cold streams, but are also found in mountain lakes and ponds. Adults are found in humid forests under rocks and logs.	**Not Expected:** Suitable habitat is not present given the absence aquatic/riparian habitat and associated moist habitats.
California red-legged frog *Rana draytonii*	FT	In or near permanent or long-lasting sources of deep water.	**Not Expected:** There is no aquatic habitat on the site and the species has not been documented within approximately 3.5 miles of the site (CNDDB).
Mammals			
Pallid bat *Antrozous pallidus*	CSC	Roosts are most commonly rock crevices but buildings, bridges, live trees and snags are also used.	**Potential:** The larger trees and cliff face on the site provide potential roosting habitat and the species is known from the Project area.
Salt marsh harvest mouse *Reithrodontomys raviventris*	FE SE CFP	Found in a variety of marsh habitats, including diked and tidal wetlands. Depends heavily on vegetation cover, particularly pickleweed and tules (*Schoenoplectus* spp.)	**Not Expected:** Salt or brackish marshes are not present on or near the Project site.
Invertebrates			
Western bumble bee *Bombus occidentalis*	SA	Like most other species of bumble bees, typically nests underground in abandoned rodent burrows or other cavities	**Not Expected:** Suitable underground nest sites were not observed on the site.
California brackish water snail *Mimic tryonia*	SA	Brackish water habitats.	**Not Expected:** Suitable brackish water habitats not present on or near the Project site.
Birds			
Cooper's hawk *Accipiter cooperii*	SA	Mature forests, open woodland, riparian forest. Nests in coast live oak and	**Potential:** Suitable nesting habitat present on and bordering the Project site.

Common Name *Scientific Name*	Status	General Habitat Description	Potential to Occur on Project Site
		other forest habitats. Sometimes nests in residential areas and parks.	
California black rail *Laterallus jamaicensis coturniculus*	ST CFP	Fresh, brackish, and pickleweed dominated salt marshes, but prefer tidal marshes.	**Not Expected:** Fresh, brackish and tidal marsh habitat not present on or near the Project site.
San Pablo song sparrow *Melospiza melodia maxillaris*	BCC CSC	Tidal marsh habitats.	**Not Expected:** Tidal marsh habitat not present on or near the Project site.
Black-crowned night heron (nesting colony) *Nycticorax nycticorax*	SA	Nesting colonies occur in groups of trees or shrubs, generally near water.	**Not Expected:** No nesting colonies observed on the site and very marginal habitat present.
Ridgway's rail *Rallus oboletus*	FE SE	Restricted to salt marshes and tidal sloughs. Usually associated with heavy growth of pickleweed	**Not Expected:** Tidal marsh habitat not present on or near the Project site.
Northern spotted owl *Strix occidentalis caurina*	FT ST	Old growth and mature second growth forests. Require a multi-layered, multi-species canopy with moderate to high canopy closure.	**Not Expected:** Suitable nesting habitat not present on or near site given relatively sparse tree canopy; not documented within approximately 2 miles of the Project site (CNDDB).
Fish			
Tidewater goby *Eucyclogobius newberryi*	FE	Inhabits lagoons formed by streams running into the sea	**Not Expected:** There are no creeks or other suitable aquatic habitats on or bordering the Project site.
Steelhead *Oncorhynchus mykiss*	FT	Coastal waters, bays and their major tributaries	**Not Expected:** There are no creeks or other suitable aquatic habitats on or bordering the Project site.

Status Key: Federal Endangered (FE); Federal Threatened (FT); Federal Bird of Conservation Concern (BCC); State Endangered (SE); State Threatened (ST), Candidate for State Threatened (CT), California Species of Special Concern (CSC); California Fully Protected Species (CFP); Included on CDFW Special Animal List (SA)

As indicated in Table 8-1, Cooper's hawk and pallid bat have potential to occur on the Project site. The potential of these species to be impacted by the proposed Project is discussed further below.

Cooper's hawk (*Accipiter cooperii*) is included on the Special Animals List maintained by the CDFW and on this basis could be considered to be of special-status under CEQA. This species was previously a California Species of Special Concern, but its sensitivity status has been downgraded to being a "Watch List" species. Breeding pairs generally select nest sites within dense stands of live oak woodland, riparian habitats, or other wooded areas, but the species is known to occasionally nest in residential areas. The Project site and surrounding areas provide potential nesting habitat for this species and the proposed tree removal could result in the loss of an active nest. Additionally, loud noise associated with construction activities has the potential to disturb nesting occurring in close proximity to the site and to result in the abandonment of an active nest. It should also be noted numerous bird species that are not considered to be special-status status (e.g., red-shouldered hawk) could nest on or near the Project site and that the active nests of all raptor species and most native bird species are protected by the Migratory Bird Treaty Act (16 U.S.C. 704) and the California Fish and Game Code (Section 3503). Therefore, the loss or disturbance of a Cooper's hawk nest, or other protected nesting bird species, is a potentially significant impact. Project construction could result in this potentially significant impact. Application of the County's Uniformly Applied Standard 22.20.040 (E), which specifies nesting bird protection measures, would reduce this impact. Mitigation Measure BIO-1, below, includes measures that would assure that this impact is reduced to a less-than-significant level.

Pallid bat (*Antrozous pallidus*) is a California Species of Special Concern. Roosts are most common in rock crevices but buildings, bridges, live trees and snags are also used. Pallid bats are communal roosters. The existing homes on the site are occupied and in good condition, and therefore, are not expected to support a bat roost. However, pallid bats may use the large rock outcrop for roosting, if crevices are large enough. Several coast live oak trees, particularly trees numbered 306-310 and 323-325 contain cavities that may be suitable for roosting bats (LSA 2018). Therefore, the proposed removal of trees, alteration of the rock outcrop, as well as construction-related noise, could result in the loss or disturbance of an active bat roost and related impacts are potentially significant. Application of the County's Uniformly Applied Standard 22.20.040 (E), which specifies roosting bat protection measures, would reduce this impact. Additionally, Mitigation Measure BIO-2, below, includes measures that would assure that this impact is reduced to a less-than-significant level.

Mitigation Measures

Mitigation Measure BIO-1: Protection of Nesting Birds. If feasible, any required tree removal should be scheduled outside the nesting period (February 1 through August 31). If construction activities would commence anytime during the nesting/breeding season of native bird species potentially nesting on the site (typically February through August in the Project region), a pre-construction survey for nesting birds should be conducted by a qualified biologist within two weeks of the commencement of construction activities.

If active nests are found in areas that could be directly affected or are within 200 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the

breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them should be determined by taking into account factors such as the following:

1. Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;

2. Distance and amount of vegetation or other screening between the construction site and the nest; and

3. Sensitivity of individual nesting species and behaviors of the nesting birds.

Monitoring Measure BIO-1. Before issuance of a Building Permit, the CDA shall confirm that special-status bird protection measures have been incorporated in the Project plans and specifications. These include submittal by the applicant of a pre-construction survey report prepared by a qualified biologist for review prior to the start of any construction activities. If the pre-construction survey indicates presence of active nests within 200 feet of construction, buffers and restrictions on construction activities within the buffer area shall be implemented as described in the mitigation measure.

Mitigation Measure BIO-2: Protection of Roosting Bats. Prior to the commencement of construction, the applicant shall commission a qualified bat biologist to conduct a focused tree and rock outcrop roosting bat habitat assessment. The habitat assessment should be conducted enough in advance to ensure tree removal or any required roost exclusions can be scheduled during seasonal periods of bat activity. Trees or rock outcrop areas containing suitable potential bat roost habitat features shall be clearly marked or identified. If day roosts are found to be potentially present, the biologist will prepare a site-specific roosting bat protection plan to be implemented. Based on site-specific conditions, the plan should incorporate the following guidance as appropriate:

When possible, removal of trees or other roost features identified as providing suitable roosting habitat should be conducted during seasonal periods of bat activity, including:

1. Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than ½ inch of rainfall within 24 hours occurs; or

2. Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than ½ inch of rainfall within 24 hours occurs.

If it is determined that a colonial maternity roost is potentially present, the roost shall not be removed during the breeding season (April 15 to August 31) to the extent practicable. If a tree potentially containing a colonial maternity roost must be removed during the breeding season, or if construction would occur within 50 feet of a potential colonial maternity roost, then the following or other measures recommended by the qualified bat biologist may be implemented:

1. Acoustic emergence surveys or other appropriate methods shall be conducted/implemented to further evaluate if the roost is an active maternity roost.

    a. If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this measure;

    b. If it is found that an active maternity roost of a colonial roosting species is present, the roost shall not be disturbed during the breeding season and the qualified bat biologist shall implement appropriate buffers/setbacks from construction activities.

Potential colonial hibernation roosts will only be removed during seasonal periods of bat activity. Potential non-colonial roosts that cannot be avoided shall be removed on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly.

Appropriate methods shall be used to minimize the potential of harm to bats during tree removal or activities affecting the large rock outcrop. Such methods may include installing one-way exclusion doors or using a two-step tree removal process. The two-step tree removal process is conducted over two consecutive days and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators or other heavy machinery) on Day 1. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed to avoid returning to the roost that night. The remainder of the tree is removed on Day 2.

If the removal of a confirmed communal maternity roost tree is required, appropriate replacement roosting habitat such as a bat box shall be installed in a suitable onsite or nearby location (prior to removal of the roost). The replacement roosting habitat and its location shall be selected by the biologist based on site-specific factors.

Monitoring Measure BIO-2. Before issuance of a Building Permit, the CDA shall confirm that special-status bat protection measures have been incorporated by the applicant into the Project plans and specifications. These include preparation of a pre-construction habitat assessment far enough in advance of construction to ensure tree removal or any required roost exclusions can be scheduled during seasonal periods of bat activity as detailed in the mitigation measure. Trees or rock outcrop

areas containing suitable potential bat roost habitat features shall be clearly marked or identified. If day roosts are found to be potentially present, the biologist shall prepare a site-specific roosting bat protection plan. If it is determined that a colonial maternity roost is potentially present, the roost shall not be removed during the breeding season (April 15 to August 31) to the extent practicable. If a tree potentially containing a colonial maternity roost must be removed during the breeding season, or if construction would occur within 50 feet of a potential colonial maternity roost, then measures shall be implemented as identified in the mitigation.

Significance with Mitigation

Implementation of Mitigation Measures BIO-1 and BIO-2 will ensure that nesting birds and roosting bats are adequately protected. With implementation of these measures, the impact on nesting birds and roosting bats would be reduced to less than significant.

Special-Status Plants

The locations of special-status plant species documented in the surrounding Project vicinity (i.e., within approximately 3 miles of the Project site is shown in Figure 6). These and other special-status plant species known from the Project region are identified in Table 8-2, Special-Status Plant Species Documented in Project Vicinity, along with their regulatory status, habitat requirements, and an evaluation of their potential to occur on or near the Project site. The Project site is in a disturbed condition and is dominated by non-native herbaceous vegetation, including numerous invasive species. The Project site also lacks habitat conditions generally associated with locally occurring special-status plants, such as serpentine, wetlands, marshes (freshwater and tidal), and clay soils. For these and the other reasons detailed in Table 8-2, no special-status plant species are expected to occur on the Project site. Therefore, impacts to special-status plants would be less than significant.

Table 8-2: Special-Status Plant Species Documented in Project Vicinity

Common Name	Status	General Habitat Description	Potential to Occur on Project Site
Tiburon buckwheat *Eriogonum luteolum* var. *caninum*	1.B.2	Serpentinite, sandy to gravelly. Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. (May-September)	**Not Expected:** Suitable habitat is not present due to absence of serpentinite.
Marin western flax *Hesperolinon congestum*	FT ST 1B.1	Serpentinite. Chaparral, valley and foothill grassland. (April-July)	**Not Expected:** Suitable habitat is not present due to absence of serpentinite.
White-rayed pentachaeta *Pentachaeta bellidiflora*	FE SE 1B.1	Often serpentinite. Cismontane woodland, valley and foothill grassland. (March-May)	**Not Expected:** Habitat is very marginal given absence of serpentinite and highly disturbed condition of the site. Species is

Common Name	Status	General Habitat Description	Potential to Occur on Project Site
			presumed extirpated in Marin County (CNPS 2018).
Napa false indigo *Amorpha californica* var. *napensis*	1B.2	Broadleafed upland forest (openings), chaparral, cismontane woodland (April-July)	**Not Expected:** Habitat is very marginal given the highly disturbed condition of the site. While the site visit was conducted outside of the species' blooming period, no shrubs resembling this species were observed on the site. The closest documented occurrence of the species (CNDDB Occurrence #72) is from 1875 and is considered "possibly extirpated" (CNDDB 2018). The next closest occurrence (CNDDB Occurrence # 3) was last reported in 1924.
Marin knotweed *Polygonum marinense*	3.1	Marshes and swamps (coastal salt or brackish). (April)May-August(Oct)	**Not Expected**: Suitable habitat not present given absence of marsh/swamp habitat.
Marsh microseris *Microseris paludosa*	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. (April-June(July)	**Not Expected:** Very marginal habitat present given the highly disturbed condition of the Project site and the prevalence of weedy plant species. There are also no recent observations of this species from the Project area - the closest documented occurrence of this species (approximately 2.5 miles from the site) was reported in 1886 and the next closest occurrence (approximately 5 miles from the site) was reported in 1944 (CNDDB 2018).
Point Reyes salty bird's-beak *Chloropyron maritimum ssp. palustre*	1B.2	Marshes and swamps (coastal salt). (June-October)	**Not Expected**: Suitable habitat not present given absence of marsh/swamp habitat.
Congested-headed hayfield tarweed *Hemizonia congesta* ssp. *congesta*	1B.2	Valley and foothill grassland; sometimes roadsides. (April-November)	**Not Expected:** Species would have been identifiable at the time of the site survey and was not present on the site. Based on the CNDDB, the species has not been documented within 4 miles of the Project site.

Common Name	Status	General Habitat Description	Potential to Occur on Project Site
Santa Cruz tarplant *Holocarpha macradenia*	FT ST	Often clay, sandy. Coastal prairie, coastal scrub, valley and foothill grassland. (June-October)	**Not Expected:** Suitable habitat is not present given absence of suitable soils. Species is presumed extirpated in Marin County (CNPS 2018).
Small groundcone *Kopsiopsis hookeri*	2B.3	North Coast coniferous forest (April-August)	**Not Expected:** Suitable habitat (i.e., coniferous forest) habitat is not present.
Two-forked clover *Trifolium amoenum*	FE 1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentinite) (April-June)	**Not Expected:** Very marginal habitat present given the highly disturbed condition of the Project site, the prevalence of weedy plant species, and absence of serpentinite. There are also no recent observations of this species from the Project area - the only known occurrence of two-fork clover from the Project area were documented in 1933 and 1961 (CNDDB Occurrence #'s 29 and 22), with the more recent occurrence reported being extirpated (CNDDB 2018); both occurrences are greater than 2.5 miles from the Project site.
Tiburon paintbrush *Castilleja affinis* var. *neglecta*	FE SE 1B.2	Valley and foothill grassland (serpentinite). (April-June)	**Not Expected:** Suitable habitat is not present due to absence of serpentinite.
Tiburon mariposa lily *Calochortus tiburonensis*	FT ST 1B.1	Valley and foothill grassland (serpentinite). (March-June)	**Not Expected:** Suitable habitat is not present due to absence of serpentinite.

b) Substantial change in the diversity, number, or habitat of any species of plants or animals currently present or likely to occur at any time throughout the year?	**Significant Impact** [ ]	**Potentially Significant Unless Mitigated** [X]	**Less Than Significant Impact** [ ]	**Not Applicable** [ ]

(source #: 38)

As discussed under item a), above, the Project site is in a highly disturbed condition and is dominated by non-native and weedy herbaceous vegetation and shrubs, with the

dominant tree species on the site including coast live oak, bay, and buckeye. There are no rare or sensitive habitat types, wetlands, riparian habitat, or creeks on the site. The habitat types on the site are common in the region, and therefore, the small Project-related loss or alteration of these habitats (up to 1.78 acres) would not result in a substantial loss of habitat. There are 42 trees on the Project site, of which 15 would be removed according to the arborist's report (ArborScience 2018). Subsequent to preparation of that report, it was determined that an additional 3 healthy, unprotected (Jeffrey pine) trees would need to be removed to improve driveway sight distances. Of the trees to be removed, 9 are "protected" trees and 3 are "heritage" trees protected under Marin County Code §22.27 (Native Tree Protection and Preservation). According to the Arborist Report, one heritage tree #305 would be removed during this phase of the Vesting Tentative Map. The Arborist report states that the tree is in good health and has "acute angle crotch." The remaining trees to be removed would need to be permitted in the plan review for the future development of Lot 5.

There is also potential that trees to remain on the site could be adversely affected by construction activities, including root loss, dust, and potential damage from large equipment during grading and excavation. Therefore, impacts associated with tree removal and incidental construction-related harm to trees are potentially significant.

The wildlife habitat value of the site is limited by the extent of onsite and surrounding residential development. The wildlife species occurring on the site are expected to primarily consist of common, urban adapted species such as opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), and raccoon (*Procyon lotor*). For the reasons discussed above, there is potential that the proposed Project could result in harm to nesting birds and roosting bats; mitigation measures BIO-1 and BIO-2 would be implemented to address related impacts and to prevent harm to birds and bats.

Implementation of Mitigation Measures BIO-1 and BIO-2would address any changes in the diversity, number, or habitat of any species of plants or animals. Mitigation Measure BIO-3 would assure that impacts to protected trees would be less than significant. With implementation of these measures, related impacts would be reduced to less than significant.

Mitigation Measures

Mitigation Measure BIO-3: Protection of Trees. The Tree Protection Measures specified in the Tree Protection Plan (ArborScience 2018) shall be implemented to minimize the potential for harm to trees to remain on the Project site.

Monitoring Measure BIO-3. Before issuance of a Building Permit, the CDA shall confirm that tree protection measures specified in the Project Arborist Report (pp. 3 and 4) have been incorporated in the Project plans by the applicant. These include installing construction fencing around protected trees, tree protection signage, repair of inadvertent damage to trees, washing of construction dust from trees, and monthly inspections by the project arborist.

Significance With Mitigation

This measure would assure that Project impacts to protected trees would be less than significant.

c) **Introduction of new species of plants or animals into an area, or improvements or alterations that would result in a barrier to the migration, dispersal or movement of animals, including wildlife corridors and wildlife nursery sites? (source #: 41)**	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	[ ]	[X]	[ ]

The Project site is currently in a disturbed condition and is dominated by non-native and weedy herbaceous vegetation and shrubs, including many landscaping species that have spread onto the site from nearby homes (i.e., aloe, Mission cactus, echium, and belladonna lily). Therefore, the proposed Project is not expected to substantially increase the extent of non-native vegetation in the area. Similarly, given the extent of surrounding development, the proposed Project would not be expected to introduce new wildlife species to the area, as urban adapted species and pets already occur in the area. The Project site is partially developed with two single-family homes, and is bordered to the east by Highway 101, to the west by single family homes, and to the north by Auburn Street and a school. As the Project does not currently provide a link between open space areas, it is not part of a regional wildlife movement corridor. Therefore, the proposed Project would not result in a barrier to the migration, or substantially interfere with the dispersal or movement of animals. Given the above, impacts associated with introducing new plants or animals to the area, or creating a barrier to wildlife movement, would be less than significant.

d) **Conflict with plans, policies or ordinances protecting biological resources, including Habitat Conservation Plans (HCP) and Natural Community Conservation Plans (NCCP)? (source #: 41)**	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	[ ]	[X]	[ ]

The Project's conformance with applicable County plans and policies is addressed in Section 1(a) of this Initial Study, and Plan policy conformance is shown in Table 1-1.

Tree protection policies and ordinances are addressed under Item b), above. There are no HCPs or NCCPs affecting the site.

9. ENERGY AND NATURAL RESOURCES.

Would the proposal result in:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Substantial increase in demand for existing energy sources, or conflict with adopted policies or standards for energy use? (sources #: 2, 43, 44)	[ ]	[ ]	[X]	[ ]

Project construction and the operation of eight new single family residences under the Project would consume energy in the form of electricity and natural gas, as well as gasoline associated with vehicular trips. However, this increase would be minor. Construction of the residences would be required to meet the minimum green building requirements of the Marin County Building Code (Marin County, 2016), and California Code of Regulations, Title 24, Part 11, which contains the State's green building requirements, known as CalGreen. These green building requirements include energy efficiency standards that would reduce energy consumption by the Project. Therefore, this impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Use of non-renewable resources in a wasteful and inefficient manner? (source #: 43, 44)	[ ]	[ ]	[X]	[ ]

Construction and operation of the Project would consume non-renewable resources including diesel fuel, gasoline, natural gas, and electricity. However, the Project, including eight future single-family residences, would be required to meet the requirements of the Marin County Building Code and CalGreen, in order to reduce the amount of energy consumed. Therefore, the Project would not result in the use of non-renewable resources in a wasteful and inefficient manner and this impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
c) Loss of significant mineral resource sites designated in the Countywide Plan from development or other land uses that are incompatible with mineral extraction? (source #: 2, 43, 44)	**[ ]**	**[ ]**	**[ ]**	**[X]**

Although the Project site may have been an historic or prehistoric quarry, it is not designated in the Countywide Plan as a significant mineral resource site (Marin County, 2007), and there are no current or recent past mineral extraction sites or operations in the vicinity of the Project site. Therefore, there would be no impact of this kind.

10. HAZARDS.

Would the proposal involve:

a) Create a hazard to the public from transport, use, or disposal of hazardous materials, or through reasonably foreseeable accident conditions associated with these materials?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The proposed Project would involve construction activities that use limited quantities of hazardous materials, such as gasoline, diesel fuel, oils and lubricants, paints and thinners, solvents, and other chemicals. The proposed Project would be subject to federal, State, and local laws and regulations governing hazardous materials. As discussed previously in Section V.4, Water, topic (c), the Project applicants would be required to comply with federal National Pollutant Discharge Elimination System (NPDES) regulations by applying for coverage under the State Construction General Permit. Under the Construction General Permit, the applicants would be required to implement construction Best Management Practices (BMPs) as set forth in a detailed Stormwater Pollution Prevention Program. These would include measures for storage, use, and disposal of hazardous materials.

During Project operations, no large quantities of hazardous materials would be used on the site; these materials would be normal household and vehicular products typical of residential communities. As a result, the Project would not result in a significant impact related to hazardous materials use, transport or storage.

b) Possible interference with an emergency response plan or emergency evacuation plan? (source #(s): 45)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The six proposed residences accessed from Auburn Street would ingress and egress from that street in both directions. The four proposed residences (two existing) accessed from Albion Street would have ingress and egress access in both directions from that street. A Fire Access Exhibit has been prepared by the applicant and reviewed by the Fire Marshall. According to the Fire Marshall, the access plan is adequate. (Alber, 2018). Therefore this impact would be less than significant.

c) Emit hazardous materials within one quarter mile of an existing or proposed school?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

As discussed above, the Project would not emit substantial quantities of hazardous materials. There is a Montessori School across Auburn Street from the Project site. Assuming standard dust control during construction, as described in the Air Quality discussion, this school would not be adversely affected by the Project.

d) Exposure of people to existing sources of potential health hazards? (sources #: 46, 47)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project site is not listed on any of the environmental databases maintained by the State Water Resources Control Board (SWRCB) or the California Department of Toxic Substances Control (DTSC) as a site which has known toxic or hazardous substances located onsite (DTSC 2018; SWRCB 2018). In addition, the Project site is far removed from any sites known to have resulted in contamination from toxic or hazardous substances. As such, the Project would not result in a significant impact related to existing sources of potential public health hazards.

e) Increased fire hazard in areas with flammable brush, grass, or trees, including wildfires and thereby expose project occupants or others to fire hazards; or would the project require the installation and maintenance of fire-protection infrastructure (including roads, fuel breaks, etc)? (source #: 48)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project site is located within the Wildland-Urban Interface (WUI), as indicated on www.firesafemarin.org's online map (accessed October 19, 2018). Because the Project site contains unmanaged, overgrown, flammable vegetation, including grass, shrubs, and trees, and because it is in close proximity to potential ignition sources, including roadways and homes, it currently poses a substantial fire hazard.

The California Building Code requires new homes in the WUI to be protected from wildfire taking a two-pronged approach:

- Remove flammable materials from around the building;
- Construct the building of fire resistant material.

With adherence to the requirements of the California Building Code for new homes in the WUI, and specific requirements imposed on the Project by the Marin County Fire Department, the Project would likely result in a reduced risk of fire hazard compared to the existing condition, since unmanaged vegetation would be replaced with landscaping per a fire department- reviewed and approved vegetation management plan, because the residences would be required to be built with non-combustible materials, and because access to the site by emergency vehicles would be required. No fire protection infrastructure would be required to be installed as part of the Project. Therefore, the impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
f) 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 or excessive noise for people residing or working in the project area?	[ ]	[ ]	[ ]	[X]

The Project site is not within an Airport Land Use Plan or within two miles of a public or private airport or airstrip. No impact would occur.

11. NOISE.

***Would the proposal result in*:**

a) Substantial increases in existing ambient noise or vibration levels? (sources #: 49, 50)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[X]	[ ]	[ ]

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The more powerful the pressure variations, the louder the sound perceived by a listener. The decibel (dB) is the standard measure of loudness relative to the human threshold of perception. Noise is a sound or series of sounds that are intrusive, objectionable or disruptive to daily life. Many factors influence how a sound is perceived and whether it is considered disturbing to a listener; these include the physical characteristics of sound (e.g., loudness, pitch, duration, etc.) and other factors relating to the situation of the listener (e.g., the time of day when it occurs, the acuity of a listener's hearing, the activity of the listener during exposure, etc.). Environmental noise has many documented undesirable effects on human health and welfare, either psychological (e.g., annoyance and speech interference) or physiological (e.g., hearing impairment and sleep disturbance).

The Project site is located in an unincorporated area of Marin County adjacent to and west of Highway 101. It is south of the City of San Rafael, but City lands surround it on three sides - west, north and east. To the north and east of Highway 101 across from the Project site, the predominant land use is commercial/industrial. But south and west of Highway 101, the lands uses are predominantly low-density residential, all noise-sensitive. The site and vicinity were surveyed (Oct. 13, 2018) to observe influential local noise sources and to measure typical daytime noise levels that future Project residents would be exposed to, as shown in Table 11-1.

Daytime traffic on Auburn Street, north of the Project site, and Albion Street, south of the Project site, is light and their influence on on-site noise levels is secondary compared to the influence of Highway 101, which passes less than 100 feet east of the site at its point of closest approach. Even so, Highway 101's effect on on-site noise levels is substantially attenuated by the elevation of the freeway above the surface of its northern parcels, or by the hilly terrain to the east of its southern parcels. Average daytime noise levels were measured to be in the mid- to upper 50s dBA. At the northern monitoring location, frequent noise level peaks in the low to mid 60s dBA correlated with the passage of heavy trucks, emergency vehicles, etc. on Highway 101. At the southern monitoring location, noise peaks were not as distinctly audible because of the greater acoustical shielding provided by the intervening terrain. Occasional noise peaks in the same dBA range were also produced by high overflights of commercial and light private aircraft.

TABLE 11-1: Daytime Noise Measurement Data and Survey Observations

Measurement Location	L_{min}	L_{90}	L_{eq}	L_{10}	L_{max}	Observations
Location #1 On-site, north parcel (Lot 5) facing Auburn St., proposed for 6 multi-family units Begin 12:06	55.2	56.8	59.2	61.3	66.8	Highway 101 passes about 200 ft. to the east, but as an elevated segment the roadbed blocks direct propagation of traffic noise; thus, traffic noise levels are substantially reduced from what they would be if the road were level with the meter.
Location #2 On-site, south parcel (Lot 1 or 2) facing Albion St., proposed for 2 single-family units Begin 12:22	50.8	51.3	54.4	57.7	60.9	Highway 101 passes about 200 feet to the east, but the hillside completely blocks line-of-sight and all direct propagation of its traffic noise. Unlike Location #1, noise of the individual passages of heavy trucks is not distinguishable above the steady low hum of Highway 101.

The unit of measurement for table entries is the **decibel (dB)**, the standard measure of a sound's loudness relative to the human threshold of perception. Decibels are said to be **A–weighted (dBA)** when corrections are made to a sound's frequency components during a measurement to reflect the known, varying sensitivity of the human ear to different frequencies. The **Equivalent Sound Level (L_{eq})** is a constant sound level that carries the same sound energy as the actual time–varying sound over the measurement period. **Statistical Sound Levels - L_{min}, L_{90}, L_{10} and L_{max} -** are the minimum sound level, the sound level exceeded 90 percent of the time, the sound level exceeded 10 percent of the time and the maximum sound level, respectively; all as recorded during the measurement periods, which for the two cases above was ten minutes.

Potentially disturbing noise increments associated with development can occur temporarily during Project construction and/or permanently after construction if the Project introduces new, substantial noise sources to the site or in its vicinity.

Incremental Noise from Construction

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to estimate the noise levels at various distances from the locus of construction work produced by a typical working group of Project construction equipment (i.e., a dump truck, a backhoe and a crane) likely to be used for the residential buildings, as shown in Table 11-2.

Table 11-2: Modeled Project Construction Noise Levels

Distance from Area of Construction Activity (feet)	Average Construction Daytime Noise Level L_{eq} (dBA)	Maximum Construction Daytime Noise Level Lmax (dBA)
25	84	87
50	78	81
100	72	75
200	66	69

Source: Federal Highway Administration, Roadway Construction Noise Model (RCNM).

Construction grading would generate some vibration, however because no blasting or impact equipment is proposed, vibration at off site receptors would be minimal and would not be expected to affect structures or occupants.

To protect existing adjacent residents from substantial Project construction noise intrusions, the following measures shall be implemented to assure that Project incremental noise impacts remain less than significant.

Incremental Noise from Project Operation

After Project construction is complete, no substantial noise level increase will occur from Project operational sources, in this case exclusively motor vehicle traffic. The noise increment added by the introduction of the motor vehicles from the 8 additional residential units (i.e., about 63 additional motor vehicle trips per day added to Auburn/Albion Streets, according to the Project traffic study) would have minimal noise impact (i.e., a fraction of a dBA) on the relatively high ambient background noise along the site access roads and as incremented by the contribution of Highway 101 traffic.

Mitigation Measures

Mitigation Measure NOI-1. The following Best Management Practices shall be incorporated into the construction documents to be implemented by the Project contractor:

- Provide enclosures and noise mufflers for stationary equipment, shrouding or shielding for impact tools, and barriers around particularly noisy activity areas on the site.
- Use quietest type of construction equipment whenever possible, particularly air compressors.
- Provide sound-control devices on equipment no less effective than those provided by the manufacturer.
- Locate stationary equipment, material stockpiles, and vehicle staging areas as far as practicable from sensitive receptors.
- Prohibit unnecessary idling of internal combustion engines.
- Require applicable construction-related vehicles and equipment to use designated truck routes when entering/leaving the site.

Mitigation Measure NOI-2. To protect the existing residents on lots adjacent to the Project site, temporary plywood sound wall(s) may be needed at times when the locus of Project construction activity approaches closer than 50 feet to the residences for periods longer than 1 week. Sound wall(s) at least 10 feet high and constructed of material with a mass of at least 4 lbs. per square foot (note: double-thickness, ¾-inch plywood would meet this standard) shall be provided by the Project contractor and be positioned as close to the construction locus as feasible, or at the residential property line, whichever would provide greater noise attenuation at the receptor. The sound wall(s) may consist of modular sections, but the sections shall be joined with no gaps, and there shall be minimal a gap between the wall(s) and the ground.

Monitoring Measures NOISE-1 and NOISE-2. Before issuance of a Building Permit, the CDA shall confirm that appropriate temporary sound walls and equipment Best Management Practices have been incorporated in the Project plans and specifications.

Significance With Mitigation

These mitigation measures would reduce impacts from Project construction noise to a less-than-significant level.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Exposure of people to significant noise levels, or conflicts with adopted noise policies or standards? (source #(s): 51, 52)	[ ]	[ ]	[X]	[ ]

Since the Project site is located in an unincorporated area of Marin County, the *Marin Countywide Plan* (*Plan*; *Built Environment Element*, Chapter 3.10 *Noise*; adopted 2007)

and the Marin County Code of Ordinances (*Code*; Chapter 6.70 – *Loud and Unnecessary Noises*) are the primary sources for applicable noise control policies and exposure standards.

The following noise control policies/standards from the *Plan* and *Code* are relevant to assessing the potential for noise impacts from Project implementation:

- Goal NO-1 Protection from Excessive Noise (Plan)

  "Ensure that new land uses, transportation activities, and construction do not create noise levels that impair human health or quality of life."

- Policy NO-1.3 Regulate Noise Generating Activities (Plan)

  "Require measures to minimize noise exposure to neighboring properties, open space, and wildlife habitat from construction-related activities, yard maintenance equipment, and other noise sources, such as amplified music."

- Implementing Program NO-1.a Enforce Allowable Noise Levels (Plan)

  "Through CEQA and County discretionary review, require new development to comply with allowable noise levels. The Acceptable Noise Levels in Figure 3-41 [of the Marin Countywide Plan – Section 3.10 Noise] *shall be used as a guide for determining the appropriate type of new development in relation to its ambient noise environment."*

- Title 6, Chapter 70, Section 030 (Code)

  "Hours for construction activities and other work undertaken in connection with building, plumbing, electrical, and other permits issued by the community development agency shall be limited to the following:
  - *Monday through Friday: seven a.m. to six p.m.*
  - *Saturday: 9 am to 5 pm*
  - *Prohibited on Sundays and Holidays (New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.)"*

The following *Plan* standards are applicable to the single-family and multi-family residential units proposed for the Project site:

- For Residential – Low-Density Single Family:
  Normally Acceptable – L_{dn}[4] < 60 dBA
  Conditionally Acceptable – L_{dn} < 70 dBA
  Normally/Clearly Unacceptable – L_{dn} > 70 dBA

- For Residential – Multi-Family:

[4] L_{dn}, is a 24–hour average sound level (L_{eq}) with a 10–decibel penalty added to sound levels occurring at night between 10:00 p.m. and 7:00 a.m.

Normally Acceptable – L_{dn} < 65 dBA
Conditionally Acceptable – L_{dn} < 70 dBA
Normally/Clearly Unacceptable – L_{dn} > 70 dBA

The *Plan* also presents noise contours for Highway 101 (see *Plan*, Map 3-12, *Existing and Proposed Noise Contours*) over its entire length in Marin County. At the Project site's location directly adjacent to Highway 101 just south of San Rafael city limits, it appears that noise levels on site are at least 65 dBA L_{dn} and possibly higher on the Project site's easternmost portions. But based on Project site noise measurement data and Federal Transit Administration (FTA) methodology for estimating L_{dn} from shorter-term measurements,[5] the actual on-site L_{dn} is likely substantially less – upper 50s dBA on the northern parcels, mid-50s dBA on the southern parcels. These differences are due to the attenuating effects of the highway's elevated roadbed on the northern parcels, and of local hilly terrain on the southern parcels. Thus, the proposed Project's single- and multi-family residential uses' exposure to ambient noise (in this case, mostly from traffic on Highway 101) would be compatible with the standards set by the *Plan*.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
c) For a project located within the vicinity of a private airstrip or 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.	**[ ]**	**[ ]**	**[ ]**	**[X]**

The Project is not within an Airport Land Use Plan area or within two miles of any airport. No impact would occur.

[5] Ldn in areas where transportation noise is the dominant influence is about 2 dBA less than the daytime hourly average – according to *Transit Noise and Vibration Impact Assessment*, FTA May 2006, Appendix D – *Determining Existing Noise*.

12. 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 of the public services:

a) Fire protection? (sources #: 54, 55)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

Fire protection services are provided to Central San Rafael and outlying unincorporated areas, including the project site by the San Rafael Fire Department. The nearest fire station to the Project site is Station 54, located at 46 Castro Avenue, about 0.7 miles from the Project site (San Rafael Fire 2018). The Project would not result in a need for new or altered fire protection service. A Fire Access Exhibit has been prepared by the applicant and reviewed by the Fire Marshall. According to the Fire Marshall, the access plan is adequate. (Alber, 2018). Therefore this impact would be less than significant.

b) Police protection? (source #: 53)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

Police protection services are provided to the Albion Street and Auburn Street area by the Marin County Sheriff's Department. The addition of two single family and six attached residences to this area would not be expected to substantially increase local or regional populations in the area. As a result there would not be a need for new or altered service from the Marin County Sheriff's Department. Therefore, the impact would be less than significant.

c) Schools? (sources #: 55, 56, 57, 58)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project site is within the San Rafael City Elementary School District and the San Rafael City High School District (Marin Map, 2018). The San Rafael City Elementary School District is composed of 9 schools. The San Rafael High School District has two 9-12 high schools and a continuation school. The High School District serves two Elementary School Districts: Dixie School District and San Rafael City Elementary School District. Two elementary schools are approximately equidistant from the Project site. Laurel Dell Elementary School is located at 225 Woodland Ave, approximately 1.3 miles to the Northwest from the Project site. Bahia Vista Elementary School is located at 125 Bahia Way, approximately 1.3 miles to the Northeast of the Project site.

The Elementary District and High School District have a combined enrollment of approximately 7,200 students (San Rafael City Schools 2018). Both districts have the capacity for additional students that may result from development of the Project's 8 new single-family residential units (Lucero, pers. comm.). Therefore, the impact would be less than significant.

d) Maintenance of public facilities, including roads?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The full lengths of Albion Street and Auburn Street are maintained by the Marin County Department of Public Works. The proposed new driveways would be privately maintained. It is the responsibility of the property owners who access their properties along Albion Street and Auburn Street to maintain these private roads. Following build-out of the Project, increased traffic on these private roads may incrementally increase the need for, and the cost of, road maintenance. These costs would be borne by the property owners who use the road. The County would continue to maintain Albion Street and Auburn Street. Because of the small number and likely light vehicle type that would be used by future residents of the Project, Project operations are not expected to result in a need for new or altered government service for road maintenance. Project construction would involve heavy trucks that have the potential to damage road surfaces, which could lead to the need for road repairs in order to return the road to its pre-Project condition. The property owners who are responsible for maintaining the privately maintained roadways may enter into an agreement with the applicants to fund road repair. Road

damage from Project construction would not have a substantial effect upon, or result in a need for new or altered government service for road maintenance. Therefore, the impact would be less than significant.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
e) Other governmental services, including roads, libraries, parks, and recreational facilities?	**[ ]**	**[ ]**	**[X]**	**[ ]**

The Project would not result in the need to substantially increase other government services, such as roads, libraries and parks, as the Project would not substantially increase local or regional populations that use such services and facilities. The Project's anticipate approximately 25 new residents would minimally increase the use of these services and facilities. Therefore, this impact would be less than significant.

13. UTILITIES AND SERVICE SYSTEMS.

Would the proposal result in a need for new systems, or substantial alterations to the following utilities:

a) Power or natural gas? (source #: 59)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

Pacific Gas and Electric (PG&E) is the power provider for the Project area. Currently, utilities run to existing residences along Albion Street, and along Auburn Street. PG&E would determine the location of the gas-tie in for connection of the residences to the utility existing utility system. Marin County Code §22.20.110 requires undergrounding of utilities to new developments. No new facilities or transmission lines would be required to provide power to the Project (Estrada, 2018). Therefore, the impact would be less than significant.

b) Communications systems?	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

The Project plans include establishment of service connections to existing communications systems. The single-family Lots 1, 2, 3 and 4 would connect to communication systems that presently extend along Albion Street. The attached units on Lot 5 would connect to existing communication systems that extend along Auburn Street. Connection to existing communication systems would not result in substantial alterations to the existing service infrastructure, and therefore the impact would be less than significant.

c) Local or regional water supply, treatment or distribution facilities? (source #: 60)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

Water supply for the Project is discussed in Section V4, Water, item (f). As previously stated, there is adequate water supply for the Project. The Project site is within the service area of the Marin Municipal Water District (Reed 2018), which would provide hook-ups

to the residences developed under the Project if certain requirements are met, as discussed in Section V.4. The Project would not result in the need for new or expanded regional water treatment or distribution facilities, and therefore the impact would be less than significant.

d) Wastewater treatment systems? (source #: 61)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

Sanitary sewer service is provided to the Project Area by the San Rafael Sanitation District (SRSD). SRSD is responsible for the collection of sewage from homes and businesses in Central, Southern, and unincorporated San Rafael area and pumping for treatment to the Central Marin Sanitation Agency at 1301 Anderson Drive. The District maintains 132 miles of sewer pipelines, various manholes and cleanouts, and 32 pump stations to convey effluent for treatment. The Project would require an extension of existing sewer pipes and hookups for the proposed 8 new residences. New hookups are available from the SRSD, upon obtaining a permit and paying a connection fee (Hernandez 2018). The two existing residences are presently connected and will not require sewer pipe extensions or new hookups. While 8 new hookups would add incrementally to SRSD's existing system, it would not be expected to result in the need for new or substantially altered pumping or treatment facilities. Therefore, the impact would be less than significant.

e) Storm water drainage? (sources #: 62, 63)	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
	[ ]	[ ]	[X]	[ ]

As discussed in Section V.4, Water, topic (a), the Project applicants completed a detailed storm drainage study. The presently mostly undeveloped Project site has a runoff coefficient of 0.35, meaning 35% of rainfall exits the site as runoff. The site presently has a relatively low coefficient of permeability due to shallow underlying bedrock. The study found that the post-Project runoff coefficient will increase to 0.42. The study found that the Project would increase impervious surfaces from the current 9,400 sq. ft. to approximately 27,600 sq. ft. (Wood Rodgers Hydrology 2018). As a regulated Project, BASMAA regulations require that pervious surfaces always be used when possible, and areas of new roofs and paving must be minimized (Bay Area Stormwater 2018).

A Stormwater control plan has been prepared for the site in compliance with the BASMAA Post Construction Manual to assure that peak runoff flows do not exceed

present flows that occur without the Project. The plan includes a system of storm drains and bioretention basins, as well as a large self-treating open space area. The basins are sized to retain peak runoff resulting from the new impervious surfaces on the site for design storm (as specified in the BASMAA Post Construction Manual). The plan's drainage system approximates the current drainage pattern, but with detention basins. The Project would continue to discharge into the existing 18-inch storm drain in Auburn Street (Wood Rodgers Stormwater Control Plan 2018). This drain currently receives runoff from the Project site, and has adequate capacity. Therefore, the impact would be less than significant.

f) **Solid waste disposal? (sources #(s): 64, 65)**	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[ ]**	**[X]**	**[ ]**

Solid waste and recycling collection service is provided to the Project area by the Marin Sanitary Service (MSS). MSS operates its own vehicle fleet and makes separate weekly collection of refuse, recyclable materials, and green waste (Marin Sanitary Service 2018). Collected materials are taken to the Marin Resource Recovery Center, operated by Marin Sanitary District and located on Jacoby Drive in San Rafael. There, recyclable materials are processed for market and compostable and disposable materials are transferred to the Redwood Landfill, located north of Novato and east of US 101. Redwood Landfill has a permitted capacity to receive 2,300 tons per day for disposal, has a remaining design capacity of 26,000,000 cy, and is projected to reach capacity in 2036. The EarthCare Composting Facility, located on the landfill site, has a daily capacity of 514 tons of compostable materials (CalRecycle 2018). Solid waste generated by Project construction and future single-family residences would not result in exceedance of the permitted throughput capacity of long-term capacity of these facilities. In addition, the proposed Project would be required to comply with applicable County and State regulations regarding solid waste disposal and recycling, including CalGreen Title 24 requirement to recycle 65% of construction and demolition waste. Therefore, the impact would be less than significant.

14. AESTHETICS/VISUAL RESOURCES.

Would the proposal:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Substantially reduce, obstruct, or degrade a scenic vista open to the public or scenic highway, or conflict with adopted aesthetic or visual policies or standards? (sources: 66, 67, 68)	[ ]	[ ]	[X]	[ ]

The Countywide Plan (CWP) identifies undeveloped ridges and upland greenbelts as important scenic resources. The Project site is not within a designated Ridge and Upland Greenbelt area identified in the CWP, however the CWP supports large rock faces as being distinctive and important components of the visual environment. Specifically, the rock face could be considered a "Landmark", because of its visual prominence. Additionally, the Socioeconomic Element of the Countywide Plan (p. 4.13-30) identifies rock outcroppings as important features to be protected. US Highway 101 in the project vicinity is not designated as a state Scenic Highway.

The site has some open space visual amenities, as it contains a variety of vegetation types, including brushy species, grasslands, and trees (see Photos 1 to 3, below). It also has an approximately 20 to 30-foot high rock face, the base of which is about 30 feet above Auburn Street, which is the remains of an old quarry (see Figures 2 and 3). That rock face is prominent in views from southbound US-101. The Project's lower buildings on Lot 5 could block the view of the lower portion of the hillside from Auburn Street, but would not block views of the rock face from US-101. The proposed new houses along Albion Street would not block views because they would be situated down-slope from the road. Once developed, the view of the Project site would be substantially similar to views of other developed areas in the neighborhood.

The lower Project buildings on Lot 5 would be located closer to Auburn Street, and with a maximum height of 30 to 40 feet, they would not be tall enough to block views of the rock face from US-101, therefore the Project would not create a significant impact to that view. Future development on Lot 5 would be subject to a future design review approval process, which would likely include the installation of story poles prior to project approval that would demonstrate the cubicle contents of the proposed buildings and maximum heights. Current views of the site from both Auburn and Albion Streets reflect that the developed Project would blend into the existing landscape. Therefore the Project would not substantially reduce, obstruct, or degrade a scenic vista open to the public or scenic highway, or conflict with adopted aesthetic or visual policies or standards, and the impact would be less than significant.

Photo 1. View Northward across the Project Site from below Albion Street

Photo 2. Panoramic View of Lower Portion of the Project Site showing rock face

Photo 3. View of Site from Auburn Street

b) Have a demonstrable negative aesthetic effect by causing a substantial alteration of the existing visual resources including, but not necessarily limited to: 1) an abrupt transition in land use; 2) disharmony with adjacent uses because of height, bulk or massing of structures; or 3) cast of a substantial amount of light, glare, or shadow?	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[ ]**	**[X]**	**[ ]**

As noted in the previous discussion, the Project would not substantially alter any significant visual or aesthetic resources. While the Project would replace the current open space character of the site, it would change it to a use that is visually compatible with the surrounding uses, consisting of low-density single-family houses on Albion Street and medium-density attached homes on Auburn Street. Height, bulk, and massing of structures would be consistent with the zoning and with adjacent residential development. It would not result in an abrupt transition in land use or disharmony with adjacent uses.

New Project residences would add new sources of nighttime lighting as well as daytime glare from reflective building surfaces. Furthermore, additional vehicle traffic would add new sources of vehicle lights on roadways accessing the new residences, including Auburn and Albion Streets. These new sources of light and glare can be expected, however, to be similar to existing sources in the surrounding neighborhood. Setback and landscaping requirements specified in the County's Zoning and Building Codes, and further requirements that may be imposed through Design Review, would reduce the intrusiveness of new sources of light and glare. Therefore, the impacts of new sources of light and glare would be less than significant.

15. CULTURAL RESOURCES.

***Would the proposal*:**

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
a) Cause a substantial adverse change in the significance of paleontological, archaeological, or historical sites, objects, or structures? (sources #: 69, 70)	[ ]	[ ]	[X]	[ ]

Two cultural resources evaluations have been prepared for the Project site by LSA Associates, Inc. (LSA, July 6 2018; October 2018). The first report included a records search and field survey. That report found several chert flakes of human origin. It determined that the lower portion of site may have been a prehistoric Native American quarry, and recommended further study. It concluded that, although the Project is not likely to encounter intact archaeological deposits and/or human remains, that possibility cannot be discounted.

The second report presented the findings of fourteen shovel test pits (STPs) dug to evaluate the likelihood of any substantial prehistoric deposits on the site. The excavations identified a matrix consisting of chert flakes, gravel, and cobbles, and modern trash such as glass and plastics. No formal tools were identified (e.g., bifacial preforms or cores). Some of the flakes had attributes typically associated with tool manufacture and lithic reduction (e.g., a bulb of percussion, percussion ripples, a striking platform, and dorsal surface flake removals). This, along with the site's proximity to other nearby pre-contact occupation sites, suggests intermittent use during prehistory. Other chert flakes and spalls identified at the site were likely the product of natural or mechanical processes and disturbance.

The study concluded that the site does not appear eligible for inclusion in the California Register of Historic Places (CRHR) and therefore, is not a historical resource for the purposes of CEQA. The site does not qualify for the CRHR due to mechanical disturbance during historic-period grading and excavation activities, a low density of pre-non-native-contact quarry waste identified in the STP excavations, and the absence of datable materials or deposits.

Implementation of the proposed residential construction Project would have no impact on cultural resources under CEQA. No further archaeological research is recommended within the proposed Project site unless significant, unanticipated archaeological deposits or human remains are encountered during construction. County Uniformly Applied Standard 22.20.040 (D) would assure that any impacts associated with unanticipated cultural resources discoveries during construction would be reduced to a less-than-significant level. No mitigation is required.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) Have the potential to cause a physical change which would adversely affect unique ethnic cultural values, or religious or sacred uses within the project area? (sources #: 69, 70)	[ ]	[ ]	[X]	[ ]

As described in Item a), above., the Project would not have the potential to cause an change in a known ethnic cultural values of the site. There are no religious or sacred uses of the site. Therefore this impact would be less than significant.

16. TRIBAL CULTURAL RESOURCES.

Would the proposal result in:

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	[ ]	[ ]	[X]	[ ]
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).				

(sources #: 69, 70, 71, 72)

Please see responses to items 15 a and b, above. The Project site has been extensively investigated for cultural resources, and the studies concluded that the site does not appear eligible for inclusion in the California Register of Historic Places (CRHR) and therefore, is not a historical resource for the purposes of CEQA. The Project site does not qualify for the CRHR due to mechanical disturbance during historic-period grading and excavation activities, the low density of pre-non-native-contact quarry waste identified in the excavations, and the absence of datable materials or deposits. Additionally, pursuant to the requirements of AB 52, the County notified tribal representatives of the Federated Indians of Graton Rancheria (FIGR) and the Ione Band of Miwok Indians, and no requests for consultation under AB 52 were received from the tribes.

Please see response to Item a, above, and Items 15 a and b. concluded that the site does not appear eligible for inclusion in the California Register of Historic Places (CRHR) and therefore, is not a historical resource for the purposes of CEQA.

	Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	Not Applicable
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	**[ ]**	**[ ]**	**[X]**	**[ ]**

(source #(s): 69, 70, 71, 72)

Please see responses to items a) and b), above. No sites of tribal importance or concern have been identified on the site.

17. SOCIAL AND ECONOMIC EFFECTS.

Would the proposal result in:

Any physical changes which can be traced through a chain of cause and effect to social or economic impacts.	**Significant Impact**	**Potentially Significant Unless Mitigated**	**Less Than Significant Impact**	**Not Applicable**
	[ ]	**[ ]**	**[X]**	**[ ]**

The proposed Project is a small residential infill Project in a mostly-developed residential area. It would not have the potential to result in any socioeconomic changes that could, in turn, result in urban decay or other physical environmental changes. Therefore the project would not have significant impacts to social or economic conditions.

VII. MANDATORY FINDINGS OF SIGNIFICANCE. Pursuant to Section 15065 of the State CEQA Guidelines, a project shall be found to have a significant effect on the environment if any of the following are true:

		Yes	No	Maybe
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? *As described in Section V of this Initial Study, any potential environmental impacts from the proposed project would be mitigated to a level of insignificance.*	[ ]	[X]	[ ]

		Yes	No	Maybe
b)	Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? *As described in Section V of this Initial Study, any potential environmental impacts from the proposed project would be mitigated to a level of insignificance.*	[ ]	[X]	[ ]

	Yes	No	Maybe
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	[ ]	[X]	[ ]

A review of the County's current projects under Environmental review indicates no projects are proposed near the proposed Project site or that would result in cumulative impacts in combination with the proposed Project[6]. Similarly, the City of San Rafael has no nearby pending or approved projects with impacts that may overlap those of the Project[7]. Cumulative air quality impacts of the Project are already considered in the BAAQMD's Air Quality Plan. The project would not contribute to any other cumulative impacts. As described in Section V of this Initial Study, any potential environmental impacts from the proposed project would be mitigated to a level of insignificance.

	Yes	No	Maybe
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	[ ]	[X]	[ ]

As described in Section V of this Initial Study, any potential environmental impacts from the proposed project would be mitigated to a level of insignificance.

[6] https://www.marincounty.org/depts/cd/divisions/environmental-review, accessed October 29, 2018.
[7] https://www.cityofsanrafael.org/major-planning-projects/, accessed November 5, 2018.

VIII. REPORT PREPARERS

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IX. PROJECT SPONSOR'S INCORPORATION OF MITIGATION MEASURES:

Acting on behalf of the project sponsor or the authorized agent of the project sponsor, I (undersigned) have reviewed the Initial Study for the Albion Monolith Master Plan and Tentative Map and have particularly reviewed the mitigation measures and monitoring programs identified herein. I accept the findings of the Initial Study, including the recommended mitigation measures, and hereby agree to modify the proposed project applications now on file with Marin County to include and incorporate all mitigation measures and monitoring programs set out in this Initial Study.

HAYES SHAIR, AS MANAGER OF ALBION MONOLITH, LLC
(Project Sponsor's Name or Representative)

6/13/2019
Date

(Project Sponsor's Name or Representative)

Date

(Project Sponsor's Signature)

6/13/2019
Date

(Project Sponsor's Signature)

Date

ALBION MONOLITH MASTER PLAN
DOCUMENTS INCORPORATED BY REFERENCE

The following is a list of relevant information sources that have been incorporated by reference into the foregoing Initial Study pursuant to Section 15150 of the State CEQA Guidelines. The number assigned to each information source corresponds to the number listed in parenthesis following the incorporating topical question of the Initial Study checklist. These documents are both a matter of public record and available for public inspection either online or at the Planning Division office of the Marin County Community Development Agency (CDA), Suite 308, 3501 Civic Center Drive, San Rafael. The information incorporated from these documents shall be considered to be set forth fully in the Initial Study.

1. Wood Rogers, Master Plan, Albion Street, Marin County, CA, January 24, 2018, as revised April 2019.

2. Marin Countywide Plan, CDA - Planning Division (2007)

3. Marin County Development Code, Title 22, CDA - Planning Division

4. Marin County Development Standards, Title 24, Marin County Department of Public Works - Land Use & Water Resources Division

5. Marin County Zoning and Property Information, https://www.marincounty.org/depts/cd/divisions/planning/zoning-and-general-plan-lookup Accessed October 15,2018.

6. California Department of Conservation (MarinMap, 2018).

7. California Department of Finance, Demographic Research Unit, 2017. Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2017, with 2010 Benchmark. Released: May 1, 2017. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/

8. California Geological Survey (CGS) 1976. [formerly the California Department of Conservation, Division of Mines and Geology (CDMG)]. *Geology for Planning: Central and Southeast Marin County*, CDMG Open File Report 76-2.

9. GEOCON, Inc. 2015. Geotechnical Investigation, Albion Townhomes, 33 and 37 Albion Street, San Rafael, CA. January 2015.

10. United States Geological Survey (USGS), 2000. *Geologic Map and Map Database of Parts of Marin, San Francisco, Alameda, Contra Costa, and Sonoma Counties, California,* Miscellaneous Field Studies MF 2337 Online Version: https://pubs.usgs.gov/mf/2000/2337/mf2337f.pdf

11. United States Geological Survey (USGS), 2015. UCERF3: A New Earthquake Forecast for California's Complex Fault System, Fact Sheet 2015 – 3009. Online Version: https://pubs.usgs.gov/fs/2015/3009/pdf/fs2015-3009.pdf

12. California Department of Conservation, (CDC), 2014. Marin County Tsunami Inundation Maps, available online: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Marin/Pages/Marin.aspx.

13. GEOCON, Inc. 2018. Letter from Shane Rodacker, GE, to Hayes Shair. June 6, 2018.

14. Wood Rodgers, Inc. 2018. Hydrology and Hydraulic Calculations, Albion Street, Marin County, CA. June 6, 2018.

15. Wood Rodgers, Inc., 2018. Stormwater Control Plan, Albion Street, Marin County, CA. June 2018.

16. Bay Area Stormwater Management Agencies Association, 2014. BASMAA Post Construction Manual Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, and Solano Counties. July 14, 2014.

17. Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map, Marin County, CA. Panel No. 06041C0459F. March 16, 2016.

18. RMC, 2016. Marin Municipal Water District Urban Water Management Plan. 2015 Update. June, 2016.

19. RMC, 2017. Marin Municipal Water District Water Resources Plan 2040. March, 2017.

20. Bay Area Air Quality Management District (BAAQMD). *California Environmental Quality Act Air Quality Guidelines*. May 2017.

21. BAAQMD. Air Quality Standards and Attainment Status. http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status

22. BAAQMD. Air Quality Summary Reports. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

23. California Air Resources Board (CARB). Summary: Diesel Particulate Matter Health Impacts. https://ww2.arb.ca.gov/index.php/resources/summary-diesel-particulate-matter-health-impacts

24. California Air Pollution Control Officers Association (CAPCOA). *California Emissions Estimator Model (CalEEMod) User's Guide*. http://www.caleemod.com/

25. Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February 2015.

26. BAAQMD. Recommended Methods for Screening and Modeling Local Risks and Hazards. May 2012.

27. Lakes Environmental, SCREEN *View User's Guide*. https://www.weblakes.com/products/screen/resources/lakes_screen_view_user_guide.pdf

28. BAAQMD. Stationary Source Screening Analysis Tool. http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools

29. BAAQMD. Highway Screening Analysis Tool. http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools

30. BAAQMD. Spare the Air, Cool the Climate. April 2017.

31. Marin County. Marin County Climate Action Plan 2015 Update. July 2015.

32. Wood Rogers, Inc. Albion Street Master Plan, Marin County, CA, Transportation Impact Study, Draft Report. April 2019.

33. Pang Ho Associates, Transportation Consultants. Letter to Richard Grassetti, Grassetti Environmental Consulting, October 25, 2018.

34. Email from Robert Goralka to Tammy Taylor, April 30, 2019.

35. Inter-office Memorandum from Cara Zichelli, Department of Public Works, to Tammy Taylor, Planning Department, May 2, 2019.

36. Alber, Scott, Fire Marshall, Marin County Fire Department. Email to Katie Caradec, Wood Rogers, September 18, 2017.

37. Wood Rogers, Inc. Fire Access Exhibit, Albion Street, San Rafael, CA, August 2017.

38. ArborScience. 2018. Tree-Protection Plan, Albion Street Project, San Rafael, California (APSs: 018-087-13. -14). June 3. 2018.

39. California Department of Fish and Wildlife (CDFW). 2018. California Natural Diversity Database (CNDDB) (October updates). California Department of Fish and Wildlife.

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Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society, Sacramento, CA. Website available (as of October 2918) at: http://rareplants.cnps.org/

41. LSA. 2018. Albion Street Master Plan, Biological Site Assessment for 33/37 Albion Street, San Rafael, Marin County. July 11, 2018.

42. U.S. Department of Agriculture Natural Resources Conservation Service (USDA). 2018. Web Soil Survey.

43. Marin County Community Development Agency, 2016. Green Building Requirements Fact Sheet.

44. https://www.marincounty.org/~/media/files/departments/cd/planning/sustainability/green-building/2016_standards_for_compliance_county-of-marin.pdf?la=en

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46. California Department of Toxic Substances Control (DTSC). 2018. EnviroStor on-line database. Accessed: October 19, 2018. https://www.envirostor.dtsc.ca.gov/public/

47. California State Water Resources Control Board (SWRCB). 2018. GeoTracker on-line database. Accessed October 19, 2018. http://geotracker.waterboards.ca.gov/

48. Marin County Wildlands Urban Interface Map, www.firesafemarin.org, accessed October 19, 2018.

49. Federal Highway Administration (FHWA), *Roadway Construction Noise Model User's Guide*, January 2006.

50. Federal Transit Agency (FTA), Transit Noise and Vibration Impact Assessment, May 2006.

51. Marin County, *Marin Countywide Plan* (Noise, Chapter 3.10), November 2007.

52. Marin County, Code of Ordinances, (Chapter 6.70 – Loud and Unnecessary Noises), https://library.municode.com/ca/marin_county/codes/code_of_ordinances?nodeId=TIT6PUPESAMO_CH6.70LOUNNO

53. Snyder, Nina, 2018. Personal communication (telephone): Lt. Nina Snyder, Marin County Sheriff's Office, with Nate Berls, GECo, November 19, 2018.

54. Alber, Scott, Fire Marshall, Marin County Fire Department. Email to Katie Caradec, Wood Rogers, September 18, 2017.

55. San Rafael Fire Department, 2018. Web. City of San Rafael Fire Station Information. Accessed November 11, 2018. https://www.cityofsanrafael.org/fire-stations/

56. Marin Map, 2018. Web. Map Viewer with HTML5, on-line GIS Database. Accessed November 6, 2018. https://www.marinmap.org/Html5Viewer/Index.html?viewer=smmdataviewer

57. San Rafael City Schools, 2018. Web: About Us. Accessed November 6, 2008. http://www.srcs.org/ourschools

58. Clelia Lucero, Administrative Secretary, Student Enrollment & Family Center, San Rafael City Schools, with Nate Berls, GECo, November 19, 2018.

59. Estrada, Christopher, 2018. Personal Communication (Phone), PG&E Renovation and Construction Center, with Nate Berls, November 7, 2018.

60. Reed, Matt, 2018. Personal Communication (Phone), Marin Municipal Water District, with Nate Berls, November 13, 2018.

61. Hernandez, Cindy, 2018. Personal Communication (Email), City of San Rafael Sanitation District, with Nate Berls, November 14, 2018.

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