Public Draft Initial Study/Proposed Mitigated Negative Declaration for the

Bridgeway Commons Residential Condominiums Project

Prepared for:

City of Sausalito Community Development Department

March 2025

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Prepared for:

City of Sausalito Community Development Department
420 Litho Street
Sausalito, CA 94965

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March 2025

20240142.01

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LIST OF ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
ABAG	Association of Bay Area Governments
BAAQMD	Bay Area Air Quality Management District
Basin Plan	San Francisco Bay Basin
BMP	Best Management Practices
CAAQS	California ambient air quality standards
CALGreen	California Green Building Standards Code
California MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CAP	climate action plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CCA	community choice aggregate
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
City	City of Sausalito
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNRA	California Natural Resources Agency's
CO	Carbon monoxide
CO_2	carbon dioxide
CRHR	California Register of Historic Resources
dB	decibel
DTSC	California Department of Toxic Substances Control's
EOP	Emergency Operations Plan
ESA	Endangered Species Act
EV	electric vehicle

FHSZ	Fire Hazard Severity Zones
FICON	Federal Interagency Committee on Noise
FTA	Federal Transit Administration
GGNRA	Golden Gate National Recreation Area
GWh	gigawatt-hours
GWP	global warming potential
Handbook	Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity
HLB	Historic Landmarks Borad's
HPC	Historic Preservation Commission
HRE	Historic Resource Evaluations
IM	Industrial-Marinship
IPaC	Information for Planning and Consultation
IS	Initial Study
LBP	lead-based paint
L_{dn}	Day-Night Level
L_{eq}	Equivalent Continuous Sound Level
L_{max}	Maximum Sound Level
LRA	local responsibility area
LUST	leaking underground storage tanks
MCE	Marin Clean Energy
MG	million gallons
mgd	million gallons per day
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MMWD	Marin Municipal Water District
MND	Mitigated Negative Declaration
mph	miles per hour
MTC	Metropolitan Transportation Commission
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NOI	Notice of Intent to Adopt a Mitigated Negative Declaration
NO_X	nitrogen oxides
NWIC	Northwest Information Center
OPR	California Governor's Office of Planning and Research
PG&E	Pacific Gas and Electric Company

PM_{10}	particular matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$	fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
PPV	Peak Particle Velocity
PRC	Public Resources Code
Project	Bridgeway Commons Residential Condominiums Project
R-3	Multiple Family Residential
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SMCSD	Sausalito-Marin City Sanitary District
SMFPD	Southern Marin Fire Protection District
SO_2	sulfur dioxide
SPD	Sausalito Police Department
SRA	state responsibility area
SWRCB	State Water Resources Control Board's
TAC	toxic air contaminants
TAMDM	Transportation Authority of Marin Demand Model
TAZ	transportation analysis zone
VdB	Vibration Decibels
VMT	vehicle miles traveled
WUI	Wildland Urban Interface

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1 INTRODUCTION

This Initial Study/Proposed Mitigation Negative Declaration (IS/Proposed MND) has been prepared for the City of Sausalito to evaluate potential environmental effects resulting from the Bridgeway Commons Residential Condominiums Project (project).

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when: (a) The Initial Study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.1 PROJECT HISTORY

A Draft IS/MND was prepared in 2016 for the project (Application 2014-021) and was posted on the City's website for public review and consideration. In December 2016, the Bridgeway Commons Residential Condominiums Project IS/MND and a *Notice of Intent to Adopt a Mitigated Negative Declaration* (NOI) were prepared. Pursuant to Sections 15072 and 15072 of the State CEQA Guidelines, the Draft IS/MND and NOI were distributed for a 30-day public review period from December 7, 2016 through January 9, 2017. A public meeting to summarize the findings of the Draft IS/MND was held at 6:30 p.m. on December 15, 2016 in the City of Sausalito Council Chambers at 420 Litho Street, Sausalito, California 94965.

Prio to adoption of the 2016 IS/MND and approval of 2016 project, the project applicant withdrew the Application 2014-021. In November 2018, the project applicant filed a new application for development on the same project site as the 2016 project (Application 2018-00413). Due to complications created by the COVID-19 pandemic, the project was placed on hold by the City and applicant until 2023. The project described in the Application 2018-00413 is the subject of this IS/proposed MND.

1.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

The City is the CEQA lead agency responsible for the review and approval of the project. Based on the findings of the IS for the project, the City has determined that an MND is the appropriate environmental document to prepare in compliance with CEQA (California Public Resources Code Section 21000 et seq.). As stated in CEQA Section 21064.5, an MND may be prepared for a project subject to CEQA when an IS has identified no potentially significant effects on the environment. This MND has been prepared for the City and complies with Section 15070(a) of the CEQA Guidelines (14 CCR 15000 et seq.). The purpose of the MND and the Initial Study Checklist (see Chapter 3 of this IS) is to determine any potentially significant impacts associated with the project and to incorporate mitigation measures, as necessary, to reduce or eliminate the significant or potentially significant effects of the project.

1.3 PUBLIC REVIEW PROCESS

A *Notice of Intent to Adopt a Mitigated Negative Declaration* (NOI) was mailed to the State Clearinghouse and affected responsible and trustee agencies and interested organizations and individuals, and it is on file at the Marin County Clerk's Office. A summary of the NOI was published in the Marin Independent Journal on March 15, 2025 to announce the public review period. The IS/Proposed MND and associated technical reports are available online at https://www.sausalito.gov/city-government/hot-topics/housing-element-update-2023-2031. Hard copies are available for public review during business hours at420 Litho Street, Sausalito. There will be a 30-day public review period for the IS/Proposed MND, meeting and exceeding the requirements of Section 15073 of the State CEQA Guidelines. In reviewing the IS/Proposed MND, the reviewer should focus on the sufficiency of the document in identifying and analyzing the potential impacts on the environment and ways in which the potentially significant effects of the project are avoided or lessened. Comments or questions on this IS/Proposed MND must be postmarked by 5:00 p.m. on April 14, 2025 and can be sent in writing to the address below. Please include "Bridgeway Commons Residential Condominiums Project" in the subject line.

Kristin Teiche, Principal Planner
420 Litho Street
Sausalito, CA 94965

E-mail comments may be addressed to: kteiche@sausalito.gov

If you have questions regarding the IS/Proposed MND, please call Kristin Teiche at: (415) 289-4134. If you wish to send written comments (including via e-mail), they must be postmarked by April 14, 2025.

After comments are received from the public and reviewing agencies, the Planning Commission may (1) adopt the MND and approve the project; (2) undertake additional environmental studies; or (3) deny the project. If the project is approved and funded, the project proponent may proceed with the project.

1.4 DOCUMENT ORGANIZATION

This IS/Proposed MND is organized into the following chapters:

- Chapter 1, "Introduction," provides an introduction to the IS/Proposed MND and the environmental review process; and provides an outline of the IS/Proposed MND organization.
- Chapter 2, "Project Description," provides a detailed description of the project.
- Chapter 3, "Environmental Checklist," presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.
- Chapter 4, "References," lists the references used in preparation of this IS/Proposed MND.
- Chapter 5, "List of Preparers," identifies report preparers.

2 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The approximately 0.58-acre (25,264 square feet) project site is located at 1751-1757 Bridgeway Boulevard and 160 Filbert Avenue in the City of Sausalito, California (Figure 1). The project site consists of two parcels, Accessor's Parcel Numbers 064-151-02 and 064-151-03, and is located within the northwestern street block that is bounded by Bridgeway Boulevard to the northeast, Filbert Avenue to the southwest, Easterby Street to the northwest, and Napa Street to the southwest (Figure 2). Vehicular access to the project site is provided via Bridgeway Boulevard.

2.2 EXISTING SETTING

2.2.1 General Plan Designation

The project site is designated as High Density Residential in the 2021 City of Sausalito General Plan Land Use Element (City of Sausalito 2021). The High Density Residential designation envisions a mix of single-family residences, condominiums, or apartments. The maximum building density allowed under this designation is 29 dwelling units per acre (1 dwelling unit per 1,500 square feet). Based on the square footage of the lot, the maximum density allowed on the project site would be 16 units.

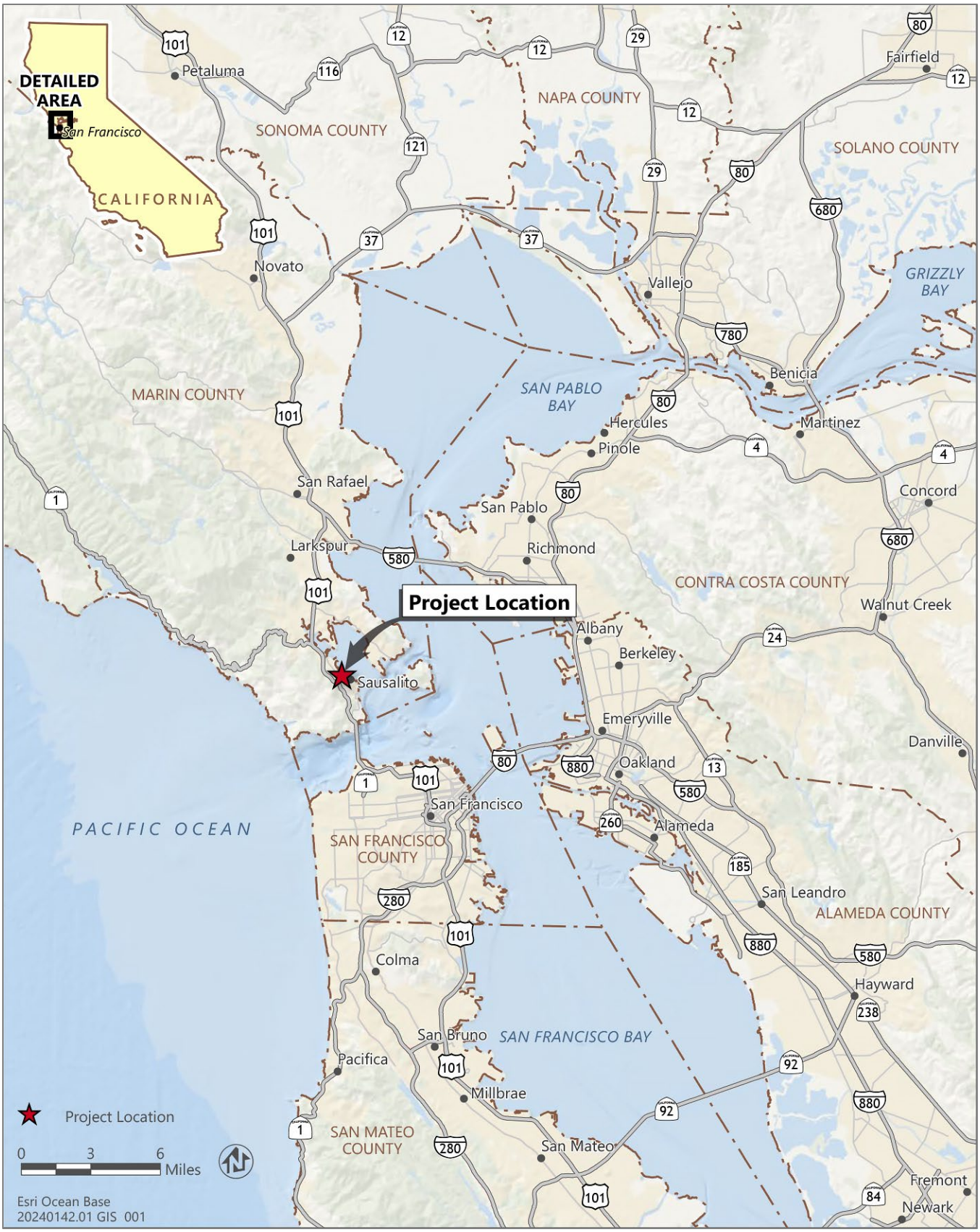
2.2.2 Zoning

The project site is in the Multiple Family Residential (R-3) zoning district. The R-3 zoning district has a maximum floor area ratio limit of 0.8. The height limit is 32 feet measured on an average of the highest and lowest points of contact with the natural grade of the site. No building shall exceed 50 feet when measured from roofline to the grade directly below it. In addition, building height within the first 15 feet from the front lot line is limited to 40 feet above street elevation when the lot runs uphill from the street, and 24 feet above street elevation when a lot runs downhill from the street.

2.2.3 Site Conditions and Surrounding Land Uses

The project site consists of four residential structures: 1745 Bridgeway (built in 1894), 1751 Bridgeway (built in 1917), 1757 Bridgeway (built in 1879), and 160 Filbert Avenue (built in 1909). The buildings were recommended not eligible for listing in the California Register of Historical Resources, and in October 2019 the City's Historic Preservation Commission concurred with this finding (City of Sausalito 2019). Additionally, in May 2015 the City's Historic Landmark Board concluded that none of the buildings were eligible for listing on the Sausalito Local Register (City of Sausalito 2015). The City's Historic Landmark Board also requested that documentation pursuant to the Historic American Building Survey guidelines be completed as a Condition of Approval for the project (City of Sausalito 2015). All of the existing buildings on the project site have been vacant for several years and are in a deteriorating condition.

The surrounding land uses on the southwest side of Bridgeway Boulevard include single-family and multi-family residences. The immediate neighborhood includes a mix of architectural styles, including older single-family homes dating from the late 19th and early 20th centuries and modern apartment buildings constructed in the 1950s and 1960s. Property on the Richardson's Bay side of Bridgeway Boulevard across from the project site is within the Industrial zone and within the Marinship Overlay district. The Industrial zone and Marinship Overlay district allow for a mixture of light-industrial, commercial and marine-related uses.



Source: Adapted by Ascent Environmental in 2024.

Figure 1 Regional Location

Source: Adapted by Ascent Environmental in 2024.

Figure 2 Aerial View of Project Site

2.3 DESCRIPTION OF PROJECT

The project would include removal of all trees on-site, demolition of the exiting residential structures, and construction of two separate four-level buildings. Each building would have three residential levels over a partially underground level for parking (Figure 3). Building 1 would front Bridgeway Boulevard with 13 residential units, and Building 2 would front Filbert Avenue with six residential units for a total of 19 units—three units more than the maximum number of units (16 units) allowed under existing General Plan land use designation.

The project would set aside 21 percent of the units for moderate-income households (i.e., 4 affordable housing units), which under California Density Bonus Law (Government Code Section 65915) allows for 3 bonus units in addition to the 16 base units allowed by current Geneal Plan land use designation. This equates to four affordable housing units and 15 market rate units.

Vehicular access to the property would be provided via a 24-foot-wide driveway on Bridgeway Boulevard that would provide right-turn ingress and right-turn egress to and from the ground floor parking area (Car Garden). Driveway and landscaping improvements are proposed within the public right-of-way along Bridgeway Boulevard. Although the project site also has frontage along Filbert Avenue, vehicle access is provided from Bridgeway Boulevard only. Two pedestrian stairways would be provided from Filbert Avenue.

The project would require relocation of a sewer line and connection to electricity infrastructure. Electricity service to the project site would be through either construction of a new pole or connection to the existing pole to the south of the site. If construction of a new pole is required to accommodate the project energy demand, this would be completed by PG&E. The new power pole, if required, would have a minimum height of 45 feet (39 feet above grade). The project would provide on-site drainage improvements, including construction of five bio-retention basins and storm drainpipes throughout the project site (Figure 4).

The project would feature all electric design. Mechanical equipment (e.g., heating, ventilation, and air conditioning systems) would be located on the roofs of each building, setback from the building edge, and include a physical barrier (Figure 5). The project would also include landscape and street improvements in the areas facing Bridgeway and Filbert Avenue (see Figure 5).

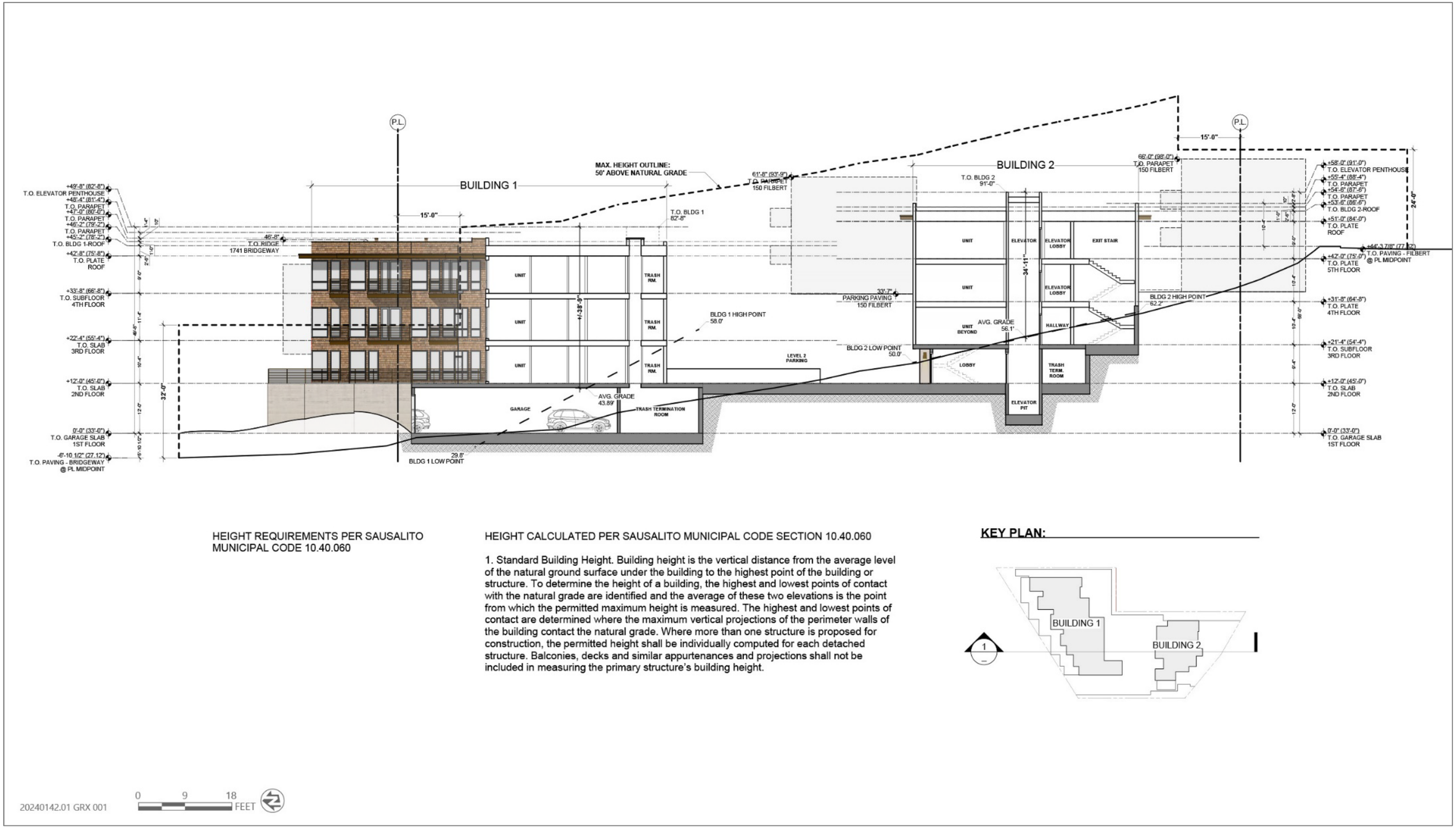
The project would provide 35 parking spaces through a mix of common parking garages, private garages, and at-grade parking spaces. A total of 24 long-term bicycle parking spaces would be included in the parking garages. The building height limit and floor area ratio in the R-3 zoning district are 32 feet and 0.8, respectively. The project would include maximum building heights of 38 feet 9 inches for Building 1 and 34 feet 11 inches for Building 2. The floor area ratio of the project is approximately 1.0. The project would use two density bonus concessions to request modification in development standard related to heigh and floor area ratio, as discussed below.

2.3.1 Request for Incentives and Concessions

After requested waivers/reductions have been granted to accommodate the density bonus units, the applicant may request concessions/incentives, or modified development standards consistent with Section 65915(k) of the Government Code. Per Government Code Section 65915(d)(1), the City shall grant a concession or incentive unless it is able to make the finding that "the concession or incentive does not result in identifiable and actual cost reductions" or "would have a specific, adverse impact… upon public health and safety or the physical environment." Projects are entitled to 1, 2, or 3 concessions/incentives, according to the criteria outlined in Section 65915(d)(2).

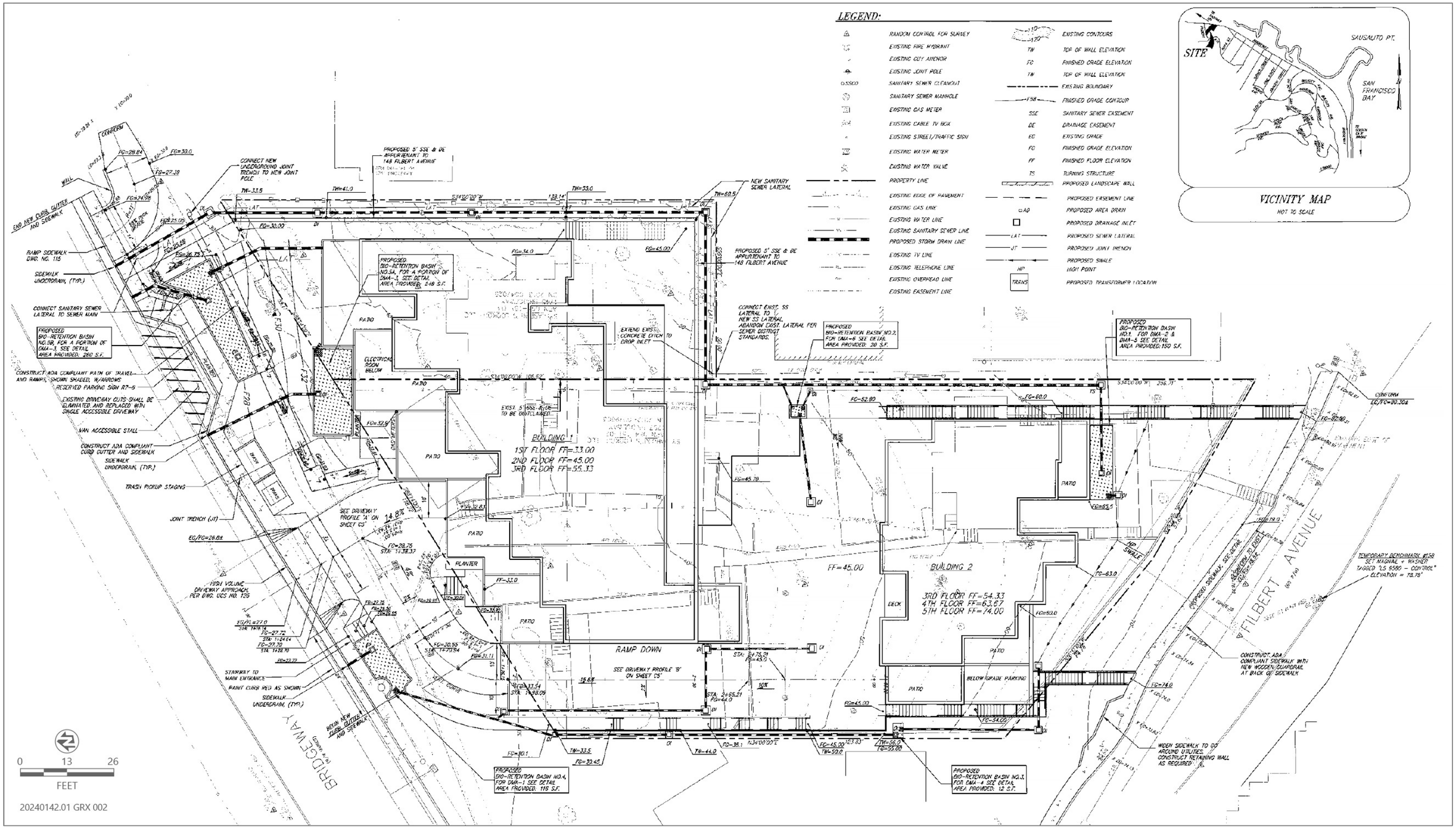
Under Government Code Section 65915(d)(2), because the project would provide more than 20 percent of the units for affordable households, the project is eligible for two incentives or concessions. Incentives and concessions may include a reduction in site development standards or a modification of zoning code requirements or architectural design requirements. Requested concessions of City development standards necessary to accommodate the density bonus include:

- Increase uphill height limit for Building 1 to 38 feet 9 inches and for Building 2 to 34 feet 11 inches from the maximum allowed 32 feet.
- Increase floor area ratio to 1.0 from the maximum allowed 0.8.



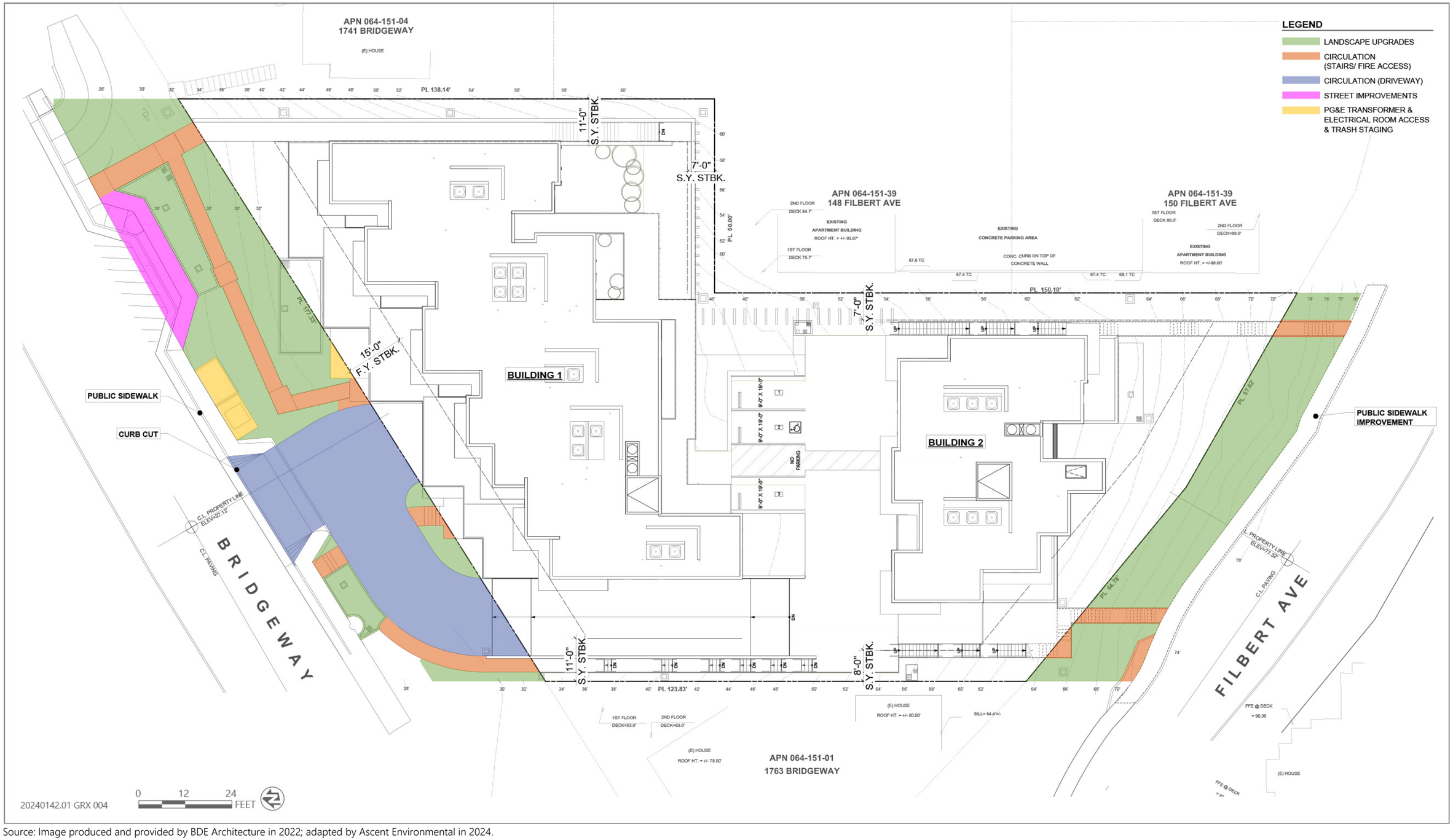
Source: Image produced and provided by BDE Architecture in 2022; adapted by Ascent Environmental in 2024.

Figure 3 Buildings Elevation



Source: Image produced and provided by BDE Architecture in 2022; adapted by Ascent Environmental in 2024.

Figure 4 Grading and Drainage Plan



Source: Image produced and provided by BDE Architecture in 2022; adapted by Ascent Environmental in 2024.

Figure 5 Encroachment Plan

2.4 REQUIRED ACTIONS

The City of Sausalito Planning Commission is the lead agency. The Planning Commission will hold a public hearing to consider the adoption of the IS/MND and approval of the project.

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3 ENVIRONMENTAL CHECKLIST

3.1 PROJECT INFORMATION

1. Project Title:
   Bridgeway Commons Residential Condominiums

2. Lead Agency Name and Address:
   City of Sausalito
   420 Litho Street, Sausalito, CA94965

3. Contact Person and Phone Number
   Kristin Teiche, Principal Planner
   415.289.4134

4. Project Location:
   1755 Bridgeway
   Sausalito, CA 94920
   Assessor's Parcel Numbers 064-151-02 & -03

5. Project Sponsor's Name and Address:
   Sy Jardin's Lookout LLC, Property Owner
   2673 Martinez Drive, Burlingame, CA 94010

   Miles Berger, Architect/Applicant
   14 Raccoon Lane, Tiburon, CA 94920

6. General Plan Designation:
   High Density Residential

7. Zoning:
   R-3 Multiple Family Residential

8. Description of Project:
   See Chapter 2, "Project Description," for detailed information.

9. Surrounding Land Uses and Setting:
   See Chapter 2, "Project Description," for detailed information.

10. Other public agencies whose approval is required:
    Marin Municipal Water District (MMWD) and Southern Marin Fire Protection District (SMFPD)

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
    See Section 3.18, "Tribal Cultural Resources," for detailed information regarding tribal consultation.

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. Where noted below with a "Y" for yes, the topic with a potentially significant impact will be addressed in an environmental impact report.

- ☐ Aesthetics
- ☐ Agriculture and Forest Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Energy
- ☐ Geology / Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards / Hazardous Materials
- ☐ Hydrology / Water Quality
- ☐ Land Use / Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population / Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation
- ☐ Tribal Cultural Resources
- ☐ Utilities / Service Systems
- ☐ Wildfire
- ☐ Mandatory Findings of Significance
- ☐ None
- ☒ None with Mitigation Incorporated

DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all 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.

Signature_____ Date_____

Printed Name _____ Title _____

Agency_____

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" 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 "No Impact" answer should be explained 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).
2. All answers must take account of the whole 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.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.2 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

3.2.1 Environmental Setting

The City of Sausalito General Plan does not designate scenic vistas. Sausalito Municipal Code Section 11.12.020(V) defines "View" as a vista of San Francisco-Richardson Bay, neighboring communities, surrounding hills or a nearby or distant wooded area from the primary living areas of the home. "Views" include, but are not limited to, skylines, bridges, distant cities, geologic features, hillside terrains and wooded canyons or ridges. The term "view" does not mean an unobstructed panorama of all or any of the views defined in Section 11.12.020(V).

In addition, Section 10.88 of the Sausalito Municipal Code provides the following definitions related to views:

- "Views" – any view of the Sausalito Waterfront, San Francisco Bay, Mt. Tam, Strawberry Point, Tiburon, Belvedere, Angel Island, East Bay, and/or the City of San Francisco or any view greater than 300 feet distance and/or including significant aesthetic, cultural, natural, or historical features. The term "view" does not mean an unobstructed panorama of all or any of the above.
- "View, primary" – any view distance from primary viewing areas of a dwelling such as the living room, dining room, kitchen, master bedroom, and deck or patio spaces serving such living areas. A secondary view shall be any view from bathrooms, accessory bedrooms, passageways and utility areas.
- "View, public" – any view from a public right-of-way, including from a public road, street, sidewalk, pedestrian lane or stair, trail, or pathway.
- "View, shed" – the area within view from a defined observation point.

The project site is located at 1751-1757 Bridgeway and 160 Filbert Avenue in the City of Sausalito, California. The project site is located within the northwestern street block that is bounded by Bridgeway to the northeast, Filbert Avenue to the southwest, Easterby Street to the northwest, and Napa Street to the southwest. The site consists of four residential structures that have been vacant for several years and are in a deteriorated condition. Surrounding

land uses on the southwest side of Bridgeway include single-family and multi-family residences. The immediate neighborhood includes a mix of architectural styles, including older single-family homes dating from the late 19th and early 20th centuries and modern apartment buildings constructed in the 1950s and 1960s. Properties on the northeast side of Bridgeway across from the project site are within the Industrial zone and the Marinship Overlay district, which allow for a mixture of light-industrial, commercial and marine-related uses.

No officially designated state scenic highway is located in the vicinity of the project site. The nearest officially designated state scenic highway to the project site is a segment of Interstate 580, which is located approximately 10 miles southeast of the project site. The nearest eligible state scenic highway is Highway 101, which runs through the city and is located approximately 0.4 mile southwest of the project site (Caltrans 2024).

The project vicinity includes levels of lighting that are characteristic of an urban environment. Existing light sources in the project vicinity include the interior and exterior lighting from buildings and residences near the project site as well as lighting from nearby streetlights, traffic lights, and vehicle headlights.

3.2.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less-than-significant impact. Scenic vistas generally refer to views of expansive open space areas or other natural features, such as mountains, undeveloped hillsides, large natural water bodies, or coastlines. Although the City of Sausalito General Plan does not designate scenic vista, the Sausalito Municipal Code defines a “View” as a vista of San Francisco-Richardson Bay, neighborhood communities, surrounding hills or a nearby or distance wooded area from the primary living areas of the home. The Sausalito Municipal Code defines views as "any view of the Sausalito Waterfront, San Francisco Bay, Mount Tamalpais, Strawberry Point, Tiburon, Belvedere, Angel Island, East Bay, and/or the City of San Francisco or any view greater than 300 feet distance and/or including significant aesthetic, cultural, natural, or historical features." The project site is located at the bottom of a hill overlooking San Francisco-Richardson Bay and the Sausalito Waterfront. The project would result in adverse effects on a scenic vista if it would substantially and adversely affect existing views that are defined by the Sausalito Municipal Code.

The project would replace the existing vacant and deteriorated residential buildings with two new residential buildings. If required, a new power pole would be constructed in front of the project site on Bridgeway with a minimum height of 39 feet above grade. The project applicant has requested a concession of City development standard for building height to accommodate the density bonus. As a result, the project would result in building heights of 38 feet 9 inches (Building 1) and 34 feet 11 inches (Building 2), which would exceed the maximum allowed 32 feet. The sloped elevation of Filbert Avenue varies from 74 feet to 82 feet. The first floors of the residences on Filbert Avenue adjacent to the project site are at elevations of 93 feet, 102 feet, and 102 feet (Miles Berger 2015). The top of the proposed Building 2 (the tallest point of the proposed development including the proposed mechanical equipment and elevator) would be at an elevation of 91 feet (Figure 3), which would be below the lowest floor elevation of the homes along Filbert Avenue. Therefore, although the new buildings would exceed the allowable height limit, the new buildings would not block views to San Francisco-Richardson Bay and the Sausalito Waterfront from Filbert Avenue and the residences above the project site. Bridgeway Boulevard is located between the project site and the San Francisco-Richardson Bay and the Sausalito Waterfront. The project site is to the southwest of the Bridgeway Boulevard while the San Francisco-Richardson Bay and the Sausalito Waterfront are to the northeast. The project would not block the view of the San Francisco-Richardson Bay and the Sausalito Waterfront from Bridgeway Boulevard. The power pole, if required, would also be below the lowest floor elevation of the homes along Filbert Avenue and would not obstruct views of the waterfront. In addition, the project would be required to comply with the City of Sausalito General Plan policies related to maintaining and enhancing views of the scenic resources within the city. For example, Policy CD-3.2 (Public Views) requires that new and significantly remodeled structures and other private and public improvements be located and designed with consideration for their impact on significant public views and view corridors. Program CD-3.2.1 (Design Review of Public View Impacts) requires the City to analyze

project submittals for new and significantly remodeled structures and landscaping for their impact on views from major public vantage points through the design review process.

Furthermore, the Sausalito Municipal Code contains rules and regulations to maintain the natural environment, as well as development and design standards to ensure that new development is consistent and compatible with the established character and preserves views. The project would undergo the design review process as detailed in Chapter 10.54 of the Sausalito Municipal Code. Project impacts would be evaluated by City Planning staff and reviewed by the Planning Commission as part of the application review process. Under Section 10.54.050 of the Sausalito Municipal Code, for the Planning Commission to approve a Design Review Permit, the Planning Commission must make a finding that the obstruction of public views and primary views from private property has been minimized. In addition, the tallest point of the proposed development and potential power pole would be below the lowest floor elevation of the homes along Filbert Avenue. Therefore, the proposed development would not obstruct views from Filbert Avenue and the residences above the project site. Compliance with existing regulations would ensure that impacts associated with scenic vista would be less than significant, and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No impact. The project site is approximately 0.4 mile northeast of Highway 101, the nearest eligible state scenic highway, and approximately 10 miles northwest of Interstate 580, the nearest officially designated state scenic highway (Caltrans 2024). The project site is not within the viewshed of Interstate 580 due to the distance of the site from the interstate as well as the intervening topography and urban development in the project vicinity. Although the project site is located 0.4 mile from Highway 101, the project site is not visible from this highway due to the topography and urban development surrounding the site. All project development would occur within the project site and would not encroach onto a state scenic highway or damage scenic resources. Therefore, the project would not damage scenic resources within a state scenic highway. No impact would occur, and no mitigation is required.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. The project site is within an urbanized area in the City of Sausalito. The project would replace the existing vacant and deteriorated residential buildings with two new buildings. As discussed in Section 2.3, the project applicant has requested two concessions (increase height limit and floor area ratio) to modify development standards consistent with Government Code Section 65915(d)(2). The project would be consistent with the City's development standards with approval of the requested concessions.

As discussed in Impact a), implementation of the project would comply with City of Sausalito General Plan policies and Sausalito Municipal Code related to scenic resources protection. In addition, the City Planning Commission would review and approve project plans prior to construction to ensure that the project complies with City standards governing scenic quality, including standards related to design, landscaping, and lighting. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality. The impact would be less than significant, and no mitigation is required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than significant with mitigation incorporated. The project site is in a lit area, characteristic of a typical urban environment. Existing light sources within the project vicinity include streetlights along roadways, interior and exterior lights on nearby residential and commercial buildings, and surface parking lot lighting. Existing sources of glare include the windows of neighboring residential and commercial buildings and vehicles in the project vicinity.

Under Subsection 12.16.140 of the Sausalito Municipal Code, construction activities would be limited to the hours of 8:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. and 5:00 p.m. on Saturdays. Thus, no construction would occur at nighttime, Sundays, or officially recognized holidays, and artificial light sources would not be required during construction activities. Temporary fencing would be installed around the construction site, which would obscure views of construction activities at ground level and reduce the amount of daytime glare reflected onto adjacent land uses from construction equipment and vehicles. Therefore, construction activities would not create new sources of light or glare that would adversely affect views in the surrounding area.

The project would be required to comply with the California Building Code (CBC) Title 24, which requires external building surfaces to be non-reflective to reduce glare. Exterior lighting would be provided on the proposed residential structures for security, vehicular access, egress, landscape accents, and building exterior illumination during operation. The project would be required to comply with the maximum requirements for outdoor lighting power allowances and mandatory lighting controls specified in the California Energy Code and California Green Building Standards Code (CALGreen). However, exterior lighting would have the potential to result in adverse effects to nighttime views in the area if not installed appropriately. This would be a potentially significant impact.

Mitigation Measure AES-1: Exterior Lighting Control

All exterior lighting shall be designed downward facing and shielded, and subject to review and approval by the City of Sausalito Building Department.

Significance after Mitigation

Implementation of Mitigation Measure AES-1 would ensure that all exterior lighting would be installed downward facing and shielded to minimize visual impacts related to nighttime view and would minimize visual impacts to adjacent properties and the general public. The impact would be less than significant with mitigation incorporated.

3.3 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.3.1 Environmental Setting

The project site is categorized as urban and built-up land by the California Department of Conservation's Farmland Mapping and Monitoring Program (DOC 2024a). The project site does not contain any land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmland). The project site is in an urban area surrounded by development and no agricultural land uses or operations are located on or adjacent to the project site. Also, no portion of the project site or adjacent parcels are held under Williamson Act contracts (DOC 2024b).

The project site is designated High Density Residential in the City's General Plan and is zoned as Multiple Family Residential (R-3) (City of Sausalito 2021; Marin County 2024). There are no areas either within or adjacent to the project site that are zoned for agricultural use, forest land, or timberland production (City of Sausalito 2003).

3.3.2 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No impact. No agricultural resources or operations are present within the project site or on adjacent parcels. The project site is mapped as urban and built-up land and does not contain any land designated as Important Farmland (DOC 2024a). Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur, and no mitigation is required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No impact. The project site is zoned as Multiple Family Residential (R-3) and is not zoned for agricultural uses (Marin County 2024). In addition, no portion of the project site or adjacent parcels are held under Williamson Act contracts (DOC 2024b). Therefore, the project would not conflict with existing agricultural zoning or a Williamson Act contract. No impact would occur, and no mitigation is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No impact. The project site is zoned as Multiple Family Residential (R-3) and is not zoned for forestland, timberland, or Timberland Production (Marin County 2024). The project site is in an urban area surrounded by development and no forest land or timberland resources are present on the project site or adjacent parcels. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. No impact would occur, and no mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. The project site is in an urban area surrounded by development and no forest land or timberland resources are present on the project site or adjacent parcels. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur, and no mitigation is required.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. As discussed above, no agricultural, forest, or timberland resources are present on the project site or adjacent parcels. Therefore, the project would not result in changes in the existing environment that could result in the conversion of Important Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur, and no mitigation is required.

3.4 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations. Are significance criteria established by the applicable air district available to rely on for significance determinations? Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.4.1 Environmental Setting

This section addresses the types and quantities of air pollutant emissions that would be generated by the construction and operation of the project and the regulatory context.

CRITERIA POLLUTANTS

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by the federal Clean Air Act and California Clean Air Act. Air pollutants are categorized as primary and/or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_X), sulfur dioxide (SO_2), respirable particular matter with an aerodynamic resistance diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, all except for ROGs are "criteria air pollutants," which means that ambient air quality standards have been established for them. The national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

On April 19, 2017, the Bay Area Air Quality Management District (BAAQMD) adopted the updated 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 Clean Air Plan). Like the 2010 Clean Air Plan, the 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. The 2017 Clean Air Plan updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health & Safety Code. To fulfill state ozone planning requirements, the 2017 control strategy (enumerated in the 2017 Clean Air Plan) includes all feasible measures to reduce emissions of ozone precursors—ROG and NO_x—and reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Clean Air Plan builds on the BAAQMD's efforts to reduce emissions of fine particulate matter and toxic air contaminants (TACs).

TOXIC AIR CONTAMINANTS

In addition to criteria air pollutants, both the State and federal government regulate the release of TACs. The California Health and Safety Code define a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the Federal Clean Air Act (42 United States Code §7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (Cal EPA), acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

Where available, the significance criteria established by BAAQMD may be relied upon to make the following CEQA determinations.

AIR QUALITY PLANNING

BAAQMD is responsible for assuring that the NAAQS and CAAQS are attained and maintained in the San Francisco Bay Aare Air Basin. BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities.

BAAQMD's *2022 CEQA Air Quality Guidelines (*BAAQMD CEQA Guidelines) includes preliminary screening criteria that provide a conservative indication of whether implementing a proposed project could potentially result in the generation of construction-related criteria air pollutants or precursors that exceed the thresholds of significance. If all the following screening criteria are met, the construction of a proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors (BAAQMD 2022):

- The project size is at or below the applicable screening level size shown in Table 4-1 of the BAAQMD CEQA Guidelines.
- All best management practices (see Table 5-2 in Chapter 5, "Project-Level Air Quality Impacts," of the BAAQMD CEQA Guidelines) are included in the project design and implemented during construction.
- Construction-related activities would not overlap with operational activities.
- Construction-related activities would not include:
    - demolition,
    - simultaneous occurrence of two or more construction phases (e.g., paving and building construction would occur simultaneously),
    - extensive site preparation (e.g., grading, cut and fill, or earth movement),
    - extensive material transport (e.g., soil import and export requiring a considerable amount of haul truck activity), and
    - stationary sources (e.g., backup generators) subject to air district rules and regulations.

The BAAQMD CEQA Guidelines include screening criteria to determine if a project requires further analysis of potential impacts related to operational criteria pollutants. According to the BAAQMD CEQA Guidelines, if all the following screening criteria are met, the operation of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors (BAAQMD 2022):

- The project size is at or below the applicable operational screening level size shown in Table 4-1 of the BAAQMD CEQA Guidelines.

- Operational activities would not include stationary engines (e.g., backup generators) and industrial sources subject to Air District rules and regulations.
- Operational activities would not overlap with construction-related activities.

3.4.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant with mitigation incorporated. Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of BAAQMD's 2017 Clean Air Plan. Projects that involve major new transit lines, highway expansions, large-scale roadway improvements, and land use development that could significantly affect transportation patterns within the region would require an Intergovernmental Review by Metropolitan Transportation Commission (MTC). The project would result in the development of 19 residential units on-site and would not involve major roadway improvements. As discussed in Section 3.18, "Transportation," the project would not exceed the vehicle miles traveled (VMT) threshold of significancy. Therefore, the project is not considered a regionally significant project that would affect regional VMT and warrant Intergovernmental Review by MTC pursuant to the State CEQA Guidelines Section 15206. In addition, the project would result in the construction of a total of 19 residential units in the R-3 zoning district, as three more units are allowed under California's Density Bonus Law (Government Code Section 65915) in addition to the 16 project units allowed under current zoning on the site. The project site has been identified as an inventory site for development of 19 units under the 2023-2031 Housing Element. Therefore, the project would be consistent with the land use and density policies contained in the City of Sausalito General Plan. The project would not exceed the level of population or housing foreseen in City or regional planning efforts and, therefore, would not have the potential to substantially affect housing, employment, and population projections within the region, which is the basis of the 2017 Clean Air Plan projections. However, as detailed in under impact (b) below, fugitive dust emissions from construction activities would have the potential to exceed BAAQMD thresholds, resulting in a potentially significant impact. Therefore, Mitigation Measure AQ-1 would be required. Mitigation Measure AQ-1 requires that the project's construction contractor comply with BAAQMD Best Management Practices (BMPs) for reducing construction emissions of PM_{10} and $PM_{2.5}$. The implementation of Mitigation Measure AQ-1 would be effective in reducing construction-related fugitive dust emissions below BAAQMD thresholds. These thresholds are established to identify projects that have the potential to generate a substantial amount of criteria air pollutants. Because the project would not exceed these thresholds with implementation of mitigation, the project would not be considered by the BAAQMD to be a substantial emitter of criteria air pollutants. The impact would be less than significant with mitigation incorporated.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-than-significant with mitigation incorporated. BAAQMD has identified thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including average daily emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. With respect to construction emissions, BAAQMD has established numerical thresholds for PM_{10} and $PM_{2.5}$ exhaust. Development projects below the significance thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Construction Emissions

Construction activities would involve the use of equipment that would result in emissions of NO_x, exhaust PM_{10} and $PM_{2.5}$, and ROG due to the combustion of fossil fuels, such as the operation of on-site heavy-duty construction vehicles, hauling trips bringing materials to and from the site, and use of on-road motor vehicles transporting the construction crew. Site preparation activities would produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from demolition and soil-disturbing activities, such as grading and excavation. ROG emissions would also be generated from the application of architectural coatings. Air pollutant emissions from construction activities would vary daily as

construction activity levels change. Construction of the project would last for 24 to 30 months. As a conservative estimation, this analysis assumes that construction would last for 24 months, which would result in a higher emission concentration per day compared to a 30-month construction period.

The project would involve demolition of all existing on-site structures. According to BAAQMD's screening criteria for project-related construction emissions, a project which includes a demolition phase as part of its construction has the potential to result in significant impacts related to criteria air pollutants and precursors and thus requires a more detailed analysis of the project's construction-generated emissions. Therefore, criteria pollutants emissions related to construction of the project were estimated and compared to BAAQMD's numerical criteria pollutant thresholds. A summary of the estimated construction-related emissions and BAAQMD's numerical thresholds for construction emissions are provided in Table 3.3-1 below.

Table 3.3-1 Average Daily Construction Emissions Summary

Construction Phase	ROG (lb/day)	NO_X (lb/day)	CO (lb/day)	PM_{10} Exhaust (lb/day)	PM2.5 Exhaust (lb/day)
2025	<1	4	5	<1	<1
2026	1	3	5	<1	<1
Maximum	**1**	**4**	**5**	**<1**	**<1**
BAAQMD Construction Threshold	**54**	**54**	**N/A**	**82**	**54**
Exceeds Threshold?	**No**	**No**	**-**	**No**	**No**

Notes: ROG = reactive organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; lb/day = pounds per day. See Appendix B for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2024.

As shown in Table 3.3-1 above, project construction activities would not result in criteria pollutant emissions exceeding BAAQMD's construction thresholds. Ground disturbing activities could generate fugitive dust. Fugitive dust emissions are considered to be significant unless the project implements the BAAQMD's BMPs for fugitive dust control during construction. PM_{10} is typically the most significant source of air pollution from the dust generated from construction. The amount of dust generated during construction would be highly variable and is dependent on the amount of material being demolished, type of material, moisture content, and meteorological conditions. If uncontrolled, levels of fugitive dust emissions of PM_{10} and $PM_{2.5}$ could possibly exceed state standards. Consequently, because the project does not include provisions to implement BAAQMD's BMPs as a component of the project's design, construction-related criteria pollutant emissions are potentially significant. Particulate matter levels downwind of disturbed areas during project construction activities could possibly exceed state standards. This would be a potentially significant impact associated with construction-related criteria pollutant emissions.

Mitigation Measure AQ-1: Implement Bay Area Air Quality Management District Best Management Practices

The project's construction contractor shall comply with the following BAAQMD Best Management Practices for reducing construction emissions of PM_{10} and $PM_{2.5}$:

a. Water all active construction areas at least twice daily, or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour (mph). Reclaimed water should be used whenever possible.

b. Pave, apply water twice daily or as often as necessary to control dust, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.

c. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e. the minimum required space between the top of the load and the top of the trailer).

d. Sweep daily (with water sweepers using reclaimed water if possible), or as often as needed, all paved access roads, parking areas and staging areas at the construction site to control dust.

e. Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the Project site, or as often as needed, to keep streets free of visible soil material.

f. Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.

g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).

h. Limit vehicle traffic speeds on unpaved roads to 15 mph.

i. Replant vegetation in disturbed areas as quickly as possible.

j. Install sandbags or other erosion control measures to prevent silt runoff from public roadways.

Significance after Mitigation

Mitigation Measure AQ-1 requires implementation of BAAQMD's BMPs, including watering exposed surfaces, covering trucks hauling loose materials, sweeping streets with water sweepers, and limiting vehicle traffic speeds. Implementation of Mitigation Measure AQ-1 would further reduce the fugitive dust emissions (e.g., $PM_{2.5}$ and PM_{10}) identified in Table 3.3-1. As required by the BAAQMD CEQA Guidelines, a project must implement all BAAQMD's BMPs to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emission. Therefore, implementation of Mitigation Measures AQ-1 would reduce this potentially significant impact related to construction emissions to a less-than-significant level by requiring compliance with the BAAQMD's BMPs for reducing construction emissions of PM_{10} and $PM_{2.5}$.

Operational Emissions

Long-term air pollution impacts are not expected as a result of the proposed 19-unit development, consistent with the use envisioned in the City of Sausalito General Plan, but result in 3 units more than what is allowed under existing zoning. The project would increase the density of development on the project site through California's Density Bonus Law (Government Code Section 65915) as discussed in Section 2.3, "Description of Project." As stated above, the BAAQMD CEQA Guidelines states that if all project-level operational screening criteria are met, the operation of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors. The project would include 19 residential units, which would be below the applicable operational screening level size shown in Table 4-1 of the BAAQMD CEQA Guidelines (the operational screening threshold in Table 4-1 of the BAAQMD CEQA Guidelines for the "apartment" land use type is 638 dwelling units). The project proposes a 19-unit multifamily housing land use and would therefore not include stationary engines (e.g., backup generators) or any industrial sources subject to BAAQMD rules and regulations. Lastly, the project's operational activities would not overlap with construction-related activities, as operational activities would commence following the cessation of the construction phase. Because the project fulfills the screening criteria requirements set forth in the BAAQMD CEQA Guidelines, project-related operational impacts would be less than significant.

Summary

The project proposes a use and density that are consistent with the City of Sausalito General Plan and meets all screening criteria for operational criteria pollutant emissions outlined in the BAAQMD CEQA Guidelines, and, with implementation of Mitigation Measure AQ-1, the project would not result in substantial net increases of any criteria pollutant. Impacts would be less than significant with mitigation incorporated.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. The following discussion addresses the impacts related to pollutant concentrations.

Toxic Air Contaminants

Sensitive receptors are facilities or land uses that include members of the population, which are particularly sensitive to the effects of air pollutants, such as children, the elderly, and persons with illnesses. The closest sensitive receptors are the residences immediately adjacent to the project site as well as a church approximately 200 feet southeast of the project site. In addition, the project site is located within an existing residential neighborhood that likely contains children and the elderly.

Diesel PM is the focus of the TAC analysis. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, methylene chloride), they are primarily associated with industrial operations and the project would not include any industrial sources. TACs from diesel PM are of particular importance because the potential cancer risk from inhalation of diesel PM outweighs the risk for all other health impacts (i.e., noncancer chronic risk, short-term acute risk) and health impacts from other TACs (OEHHA 2003).

Construction

Construction-related activities would result in temporary, intermittent emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, clearing, grading); paving; on-road truck travel; and other miscellaneous activities. On-road diesel-powered haul trucks traveling to and from the construction areas to deliver materials and equipment are less of a concern because they would not stay on the site for long periods of time.

With regards to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to guidance from the California Office of Environmental Health Hazard Assessment's *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, a 30-year exposure duration is used for estimating cancer risk at residential land uses (OEHHA 2015).

Residential receptors are typically of primary concern when discussing TAC exposure, as they would generally be exposed to project-generated TACs for extended periods of time. As stated above, the nearest sensitive receptors are existing residential units surrounding the project site as well as a church 200 feet southeast of the project site. Construction would occur intermittently over an approximately 24- to 30-month period and construction activities would not be unusually intense relative to similarly sized multi-family land use projects. In addition, the use of diesel equipment would primarily occur during demolition, clearing, and grading activities not throughout the entire construction period. Thus, given the temporary and intermittent nature (compared to a 30-year exposure duration) of construction activities within the project area and the expected low intensity of construction activities due to the land use type and size, the dose of diesel PM of any one receptor would be limited.

Operations

As described in further detail below, the project would result in an increase in vehicle trips compared to existing conditions. Compared to the existing conditions, there would be an increase in vehicle trips and associated TAC emissions, but these trips would be dispersed throughout the project site and public roadways. Emissions would be generated by vehicle trips within the region with only a small portion of these trips occurring within the project area near sensitive receptors. As a result, the actual concentration near sensitive land uses associated with implementation of the project would be minimal, and implementation of the project would not result in exposure of new or existing sensitive receptors to TACs from regular and frequent vehicle trips.

Considering the highly dispersive properties of mobile-source TACs (i.e., diesel PM) and the relatively low dose of diesel PM emissions that would be generated at any single place during the operation of the project, operations-related TACs are not anticipated to result in the exposure of sensitive receptors to substantial pollutant concentrations.

Carbon Monoxide Hotspots

BAAQMD offers guidance regarding mobile source CO impacts. BAAQMD's CEQA Guidelines provides preliminary screening criteria to aid lead agencies in assessing whether implementing a project could result in CO emissions that exceed the thresholds of significance. BAAQMD's CEQA Guidelines' screening threshold states that project-generated traffic that would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour would potentially result in a CO impact and would therefore require further analysis. The implementation of the project would introduce new vehicle trips to the project site. Based on the results of the circulation study conducted for the

project (Parametrix 2024), the project would result in approximately 128 new trips per weekday. Specifically, the circulation study showed that the project would result in approximately 8 AM peak-hour trips and approximately 10 PM peak-hour trips. There are approximately 39,000 average traffic trips per weekday and 2,900 PM peak-hour trips in the city (Parisi Transportation Consulting and M-Group 2020). Therefore, the number of vehicles traveling through intersections in the city at any given time would be less than 44,000 vehicles per hour. An addition of 128 vehicle trips per weekday as a result of the project would not result in more than 44,000 vehicles per hour traveling through intersections given the PM peak-hour traffic volume in the city is approximately 2,900 trips. Therefore, the number of vehicles traveling through intersections at any given time would be far fewer than 44,000 vehicles per hour. A CO hotspot would not result from project implementation. Moreover, CO emissions have historically decreased due to the advent of catalytic converters and progressively more stringent fuel economy standards.

Summary

Considering the relatively low levels of diesel PM emissions that would be generated by construction due to the project type and small project size, the relatively short duration of diesel PM-emitting construction activities, and the highly dispersive properties of diesel PM, construction-related TAC emissions would not expose sensitive receptors to substantial pollutant concentrations that would result in an incremental increase in cancer risk. Project operations would result in increased vehicle activity in the project area compared to existing conditions; however, the emissions would be distributed throughout the region and would not result in substantial concentrations for nearby sensitive receptors. Thus, construction and operation-related TAC emissions would not result in substantial pollutant concentrations or an incremental increase in cancer risk at nearby sensitive receptors. Regarding impacts related to CO hotspots, because the project would not meet the applicable screening criteria of 44,000 vehicles per hour through an intersection, the project would not result in a CO hotspot. This impact would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-significant impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the affected receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generate citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose a substantial number of people to objectionable odors would be deemed to have a significant impact.

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants. This is a residential development project that would result in the construction of 19 residential units and would not include any land uses typically associated with the generation of odors.

Odors emitted in the exhaust of on-site engines during construction, particularly diesel-fueled engines, may be considered offensive to some individuals. The generation of these odorous emissions would vary on a day-to-day basis depending on the type of on-site activities taking place. However, the types of diesel-fueled equipment would be similar to the diesel-powered equipment used in other development projects in the area. Such emissions would be intermittent in nature and only occur during operation of the equipment and would dissipate rapidly with increasing distance from the source. Odors generated during construction would not all concentrate at the same location for the entire duration of the construction period. Further, construction activities would be subject to BAAQMD Regulation 8, Rule 3, Architectural Coatings, and Rule 15, Emulsified Asphalt, which reduce odors from volatile organic compound. Operation of the project would be similar to the exiting residences in the surrounding areas and would not involve typical odor sources of concern as described above. For these reasons, the project would not result in the exposure of a substantial number of people to objectionable odors. This impact would be less than significant.

3.5 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.5.1 Environmental Setting

To determine the biological resources that may be subject to project impacts, the following data sources were reviewed:

- The Arborist Report for Bridgeway Apartments Development (Urban Forestry Associates, Inc. 2018),
- California Natural Diversity Database (CNDDB) (CNDDB 2024),
- California Native Plant Society Inventory of Rare and Endangered Plants of California (CNPS 2024),
- U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) list of species that may be affected by projects in the City of Sausalito (USFWS 2024), and
- aerial photographs of the project site and surrounding areas.

The project site supports previously developed urban habitat cover, containing existing residential structures, trees, and ornamental vegetation. Trees on and near the property include two native trees: a coast live oak (*Quercus agrifolia*), and a toyon (*Heteromeles arbutifolia*). In addition, there is a deodar cedar (*Cedrus deodara*) located adjacent to the road on 1745 Bridgeway Avenue. While deodar cedar is not native, it is protected by the Sausalito Tree Ordinance. Other trees on-site include blackwood acacia (*Acacia melanoxylon*) and Monterey cypress (*Hesperocyparis macrocarpa*), and various unidentified fruit trees (e.g., *Pittosporum* sp).

RIPARIAN HABITAT AND SENSITIVE NATURAL COMMUNITIES

Sensitive natural communities are those native plant communities defined by California Department of Fish and Wildlife (CDFW) as having limited distribution statewide or within a county or region and that are often vulnerable to environmental effects of projects (CDFW 2018). CDFW designates sensitive natural communities based on their state rarity and threat ranking using NatureServe's Heritage Methodology. Natural communities with rarity ranks of S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable, are considered sensitive natural communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2018).

Sensitive natural communities are generally identified at the alliance level of vegetation classification hierarchy using the Manual of California Vegetation (Sawyer et al. 2009). There are no natural communities on the project site that meet the membership rules of any sensitive natural communities recognized in the Manual of California Vegetation. Six sensitive natural communities were identified within the US Geological Survey quadrangles including and surrounding the project site through a query of CNDDB: coastal terrace prairie, serpentine bunchgrass, valley needlegrass grassland, coastal brackish marsh, northern coastal salt marsh, and northern maritime chaparral (CNDDB 2024). None of these sensitive natural communities are present on the project site.

There are no streams or associated riparian habitat on the project site. Runoff from the site would drain into Richardson's Bay, which hosts a variety of sensitive natural communities.

COMMON WILDLIFE SPECIES

There are common wildlife species that use developed areas, including the project site and surrounding area, for foraging, roosting, and nesting. These species include native animals that have adapted well to living close to humans, such as red-shouldered hawk (*Buteo lineatus*), mourning dove (*Zenaida macroura*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), western fence lizard (*Sceleroporus occidentalis*), and house finch (*Haemorhous mexicanus*), as well as nonnative species, such as house sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*). Due to the nature and location of the project site and surrounding area, it is likely that common native and nonnative wildlife species adapted to human disturbed environments use the project site for breeding and moving through the area on a regular basis while foraging.

SPECIAL-STATUS SPECIES

Special-status species are plants and animals that are legally protected under the federal Endangered Species Act (ESA), California Endangered Species Act (CESA), California Fish and Game Code, or local plans, policies, and regulations or that are otherwise considered sensitive by federal, state, or local resource conservation agencies. For the purposes of this IS/MND, special-status species are defined as:

- species listed or proposed for listing as threatened or endangered under the ESA;
- species designated as candidates for listing as threatened or endangered under the ESA;
- species listed, proposed for listing, or candidates for listing as threatened or endangered under CESA;
- species listed as fully protected under the California Fish and Game Code;
- animals identified by CDFW as species of special concern;

- plants considered by CDFW to be "rare, threatened or endangered in California" and assigned a California Rare Plant Rank of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California but more common elsewhere; and 2B, considered rare or endangered in California but more common elsewhere;
- species considered locally significant—that is, species that are not rare from a statewide perspective but are rare or uncommon in a local context, such as in a county or region (CEQA Section 15125[c]), or that are so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines Appendix G); and
- taxa (i.e., taxonomic categories or groups) that meet the criteria for listing even if they are not currently included on any list, as described in CCR Section 15380 of the State CEQA Guidelines.

A total of 81 plant species and 45 wildlife species were reviewed as having potential to occur on the project site. Based on further evaluation of species ranges and habitat requirements and conditions on the project site, this list was ultimately pared down to two special-status wildlife species that have potential to occur on or near the project site (Table 3.3-1; CNDDB 2024; CNPS 2024; USFWS 2024) (Appendix C). Other species evaluated during the desktop review were determined to not have potential to occur because they are restricted to habitat types that are not present within the project site (e.g., wetlands, sand dunes, salt marsh, conifer forest), they require areas further from human disturbance than the project site, or the project site is outside of the species' known range. All special-status plants were eliminated from further evaluation because habitats on the project site are too highly altered to support these species.

Table 3.3-1 Special-status Plant and Wildlife Species with Potential to Occur in the Vicinity of the Project Site

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Project Area
Mammals					
Pallid bat *Antrozous pallidus*	–	SSC	–	Most common in open, dry habitats with rocky areas for roosting. Tree roosting has also been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**May occur.** Pallid bat may be found roosting in large diameter trees on site or in abandoned structures.
Townsend's big-eared bat *Corynorhinus townsendii*	–	SSC	–	Throughout California in a wide variety of habitats. Most common in mesic sites. Requires large cavities for roosting, which may include abandoned buildings and mines, caves, and basal cavities of trees. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**May occur.** Townsend's big-eared bat may be found roosting in large diameter trees or in abandoned structures.

General references: Unless otherwise noted all habitat and distribution data provided by CNDDB.

1 Legal Status Definitions

Federal:

FE Endangered (legally protected)

State:

SSC Species of special concern (no formal protection other than CEQA consideration)

Source: CNDDB 2024; USFWS 2024

3.5.2 Discussion

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than significant with mitigation incorporated. Construction of the project would involve demolition of the existing structures on-site, vegetation removal, excavation, grading, and paving of the proposed construction areas as well as landscaping and revegetation. Demolition, vegetation removal, excavation, and grading activities have the potential to affect special-status species if they occupy the project site.

Two special-status bat species have the potential to occur in the project site: pallid bat and Townsend's big-eared bat (see Table 3.3-1). The vacant structures on the project site, as well as large trees with cavities and hollows, could provide day roosts, maternity colony roosts, and/or hibernation roosts for sensitive bat species. If bats are present, demolition of buildings, removal of roosting trees, or other construction activities that cause noise, vibration, or physical disturbance to these structures, could affect the survival of adult or young bats within the structures or trees identified for removal at the time of the activity. Loss of a colony of special-status bats would be a potentially significant impact.

Mitigation Measure BIO-1: Conduct Special-status Bat Surveys

Surveys for roosting bats shall be conducted in accessible portions of the existing structures within 30 days prior to tree removal and demolition. Surveys shall consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. The type of survey shall depend on the condition of the buildings and specific trees to be removed. If no bat roosts are found, then no further study shall be required. If evidence of bat use is observed, the number and species of bats using the roost shall be determined.

If a roost of bats is determined to be present at the project site, then it shall not be disturbed between April 15 and August 31 (maternity season) or between October 15 and March 1 (hibernation season). During hibernation and maternity season, disturbance to sensitive bat species may result in mortality of disturbed bats or loss of bat pups. If a colony of bats is present in onsite structures, they shall be excluded by installing devices that allow bats to exit and not return. A program addressing compensation, exclusion methods, and roost removal procedures shall be developed in consultation with CDFW before implementation of bat exclusion. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) shall be replaced in consultation with CDFW and may include construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement shall be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the structures may be removed or sealed. Roost exclusion shall be done by a contractor that has previous experience excluding bats from structures. It is recommended that the project sponsor survey several months prior to demolition to allow exclusion of bats if they have colonized the property prior to breeding or hibernating.

Significance after Mitigation

Mitigation Measure BIO-1 would require that surveys are conducted for roosting bats in the existing structures and trees within 30 days prior to tree removal and demolition. If bat roosts are detected, they would be avoided during sensitive periods including the maternity roosting season (April 15 to August 31) to avoid impacts to bat pups, and the overwintering period (October 15 to March 15) to avoid impacts to hibernating bats. If bats are present in structures that must be demolished, bat exclusion devices and roost removal procedures would be developed and implemented

in consultation with CDFW. The impact to special-status bat species would be less than significant with mitigation incorporated.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than significant with mitigation incorporated. The project site does not contain riparian habitat or sensitive natural communities. Richardson's Bay is located approximately 600 feet northwest of the project site, and runoff from the project site would drain into Richardson's Bay via a 12-inch water main that runs generally east-west along Bridgeway immediately north of the project site (City of Sausalito 2021). The bay provides a variety of sensitive marine communities. If runoff containing hazardous materials or silt enters Richardson's Bay, the impacts to sensitive marine communities would be potentially significant. Impacts related to runoff are addressed under Section 3.10, "Hydrology and Water Quality." A project-specific erosion control plan has been prepared to prevent runoff during construction. The erosion control plan identifies erosion and sediment control measures, including installation of file rolls throughout the site to prevent runoff. The project would include on-site stormwater bio-retention basins and a storm drain system to retain and treat stormwater runoff during operation. Mitigation Measure HYDRO-1 requires that a hydrology-hydraulics study be submitted and approved by the City prior to the issuance of a grading or building permit which demonstrates that the project 's on-site storm drain system is designed such that no increase in peak flow rate in stormwater runoff would result from the project. Implementation of the project-specific erosion control plan and Mitigation Measure HYDRO-1 would ensure that stormwater runoff from the project would not significantly impact Richardson's Bay. The adverse effect on sensitive natural communities associated with Richardson's Bay would be less than significant with mitigation incorporated.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. The project site is developed and surrounded by existing development. No state or federally protected wetlands are located on or near the project site. No impact to wetlands from the project would occur, no mitigation is required.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-significant impact. The project site does not provide wildlife migratory or nursery habitat for native resident or migratory fish or wildlife species. The project does not fall within areas mapped by CDFW's California Essential Habitat Connectivity Program as either Essential Connectivity Areas or a Natural Landscape Block (CDFW 2014). The project is bordered on all sides by development including Bridgeway to the northwest, a busy road that serves as a barrier to wildlife dispersal. Common bird or bat species adapted to developed areas may incidentally pass through the project site, but no major migration routes are in the area and the project does not serve as a migratory wildlife corridor. There is no aquatic habitat suitable for common fish, amphibians, or other aquatic species on the project site. Wildlife associated with the project site is generally adapted to disturbed urban sites and would not be substantially affected by the project. Implementation of the project would not destroy, impede the use of, or otherwise modify native wildlife nursery sites. Therefore, implementation of the project would not substantially interfere with the movement of native or migratory wildlife species, or adversely affect native residents or migratory wildlife corridors or native wildlife nursery sites. The impacts would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant with mitigation incorporated. The project is located in the City of Sausalito. Therefore, the City of Sausalito General Plan and ordinances related to biological resources would be applicable to the project. Applicable General Plan policies and programs including the following (City of Sausalito 2021):

- **Policy EQ-1.1 Preservation Strategy.** Utilize the development review process to protect natural areas in private ownership.
    - **Program EQ-1.2.2 Tree Ordinance.** Continue to implement the Tree Ordinance and provide support for the maintenance and protection of appropriate vegetation in order to protect desired trees, remove undesired trees, and balance tree maintenance with fire safety, views, and privacy.

The City's Tree and View Ordinance requires a tree permit for the removal of any protected tree. As a component of the overall project, the Planning Commission will review the requested tree permit. As stated in Tree and View Ordinance Section 11.12.030.B.1, to approve the requested tree permit, the Commission must determine that the tree removal is necessary to accomplish any one of the following objectives:

a. To ensure public safety as it relates to the health of the tree, potential hazard to life or property, proximity to existing or proposed structures, or interference with utilities or sewers;

b. To allow the reasonable enjoyment of the property, including sunlight, and the right to develop the property;

c. To take reasonable advantage of views; and

d. To pursue good, professional practices of forestry or landscape design.

The City of Sausalito's Tree and View Ordinance defines a protected tree as being any tree on privately owned undeveloped property with a diameter at breast height (DBH) of greater than 4 inches, and any Heritage or Dedicated tree. The project site is considered an "undeveloped property" by the definition contained in the Tree and View Ordinance because the existing structures on the site are proposed to be demolished.

An arborist report prepared by Urban Forestry Associates, Inc in September 2018 includes a survey of all Protected Trees on the project site (Urban Forestry Associates, Inc. 2018). The report identifies two significant native trees on the project site: a coast live oak and a toyon. The report also notes that there is a single deodar cedar adjacent to the road on 1745 Bridgeway. Although this species is not native to California, it is protected by the Sausalito Tree Ordinance. Several tree species present on the property are exempt from the tree ordinance, including blackwood acacia (*Acacia melanoxylon*) and Monterey cypress (*Hesperocyparis macrocarpa)*.

The survey identifies 23 trees and shrubs with a trunk diameter of 4 inches or greater located on the project site. Most are fruit trees in the genus *Pittosporum*, and there are a few ornamental trees. The only significant native trees on the project site are a coast live oak (Tree #1) and a toyon (Tree #2), both located adjacent to Filbert Avenue.

The project applicant has applied for a Tree Permit to allow the removal of the 23 trees identified in the arborist report. The permit would be considered by the Sausalito Planning Commission. Section 11.12.030.B.2 of the Tree and View Ordinance states that for approval of the requested Tree Permit, one of the following conditions must be satisfied:

a. The tree to be removed will be replaced by desirable trees; or

b. The project applicant is required to pay a tree replacement fee in the amount established by City Council resolution; or

c. The Planning Commission must waive this replacement requirement based on information provided by the applicant.

Tree and View Ordinance Section 11.12.020 defines a desirable tree as "a tree that has been approved for the specific location by the Tree Committee or City Arborist." Removal of the 23 trees identified in the arborist report without meeting the conditions identified in Section 11.12.030.B.2 of the Tree and View Ordinance would result in a significant impact related to conflict with a tree preservation ordinance.

Mitigation Measure BIO-2: Comply with Tree Permit Conditions

The project applicant shall comply with the conditions identified in the Tree Permit approved by the Sausalito Planning Commission.

Significance after Mitigation

Implementation of Mitigation Measures BIO-2 would ensure that the project would be in compliance with Tree and View Ordinance. Therefore, the impact would be less than significant with mitigation incorporated.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No impact. The project site is not located within the jurisdiction of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other local conservation plan. Therefore, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact would occur.

3.6 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Substantially disturb human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.6.1 Environmental Setting

In July 2024, a California Historical Resources Information System records search was conducted by the Northwest Information Center (NWIC) on the campus of California State University, Sonoma to determine whether precontact archaeological, historic-period archaeological, or built-environment historical resources have been previously recorded within the project area, the extent to which the project area has been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the project area (NWIC File No. 23-1828). The results indicated that there are no previously recorded resources or surveys within the project area. However, within the 0.25-mile radius, two resources and five survey reports have been recorded. The previously recorded resources consist of one historic-era structure and one precontact isolate. An archaeological field survey was completed by Alta Archaeological Consulting (ALTA), and a Federated Indians of the Graton Rancheria (FIGR) Tribal Monitor on November 15, 2024. No archaeological resources were identified within the project site during the survey. The field methods and the results of archaeological field survey are documented in the Archaeological Survey Report (Appendix D).

Four buildings are located on the project site: 1745 Bridgeway (built in 1894); 1751 Bridgeway (built in 1917); 1757 Bridgeway (built in 1879); and 160 Filbert Avenue (built in 1909). Two Historic Resource Evaluations (HREs) have been prepared for the four buildings located on the project site. Carey & Co. Inc. prepared an HRE for 1751 and 1757 Bridgeway and 160 Filbert Avenue in August in 2006 (2006 HRE) and concluded that structures on 1751 and 1757 Bridgeway and 160 Filbert Avenue do not retain a level of historic significance to be eligible for listing on the California Register of Historic Resources (CRHR) (Carey & Co. Inc. 2006). In February 2007, Carey & Co. Inc. prepared a memorandum (2007 Memo) to provide comments on Sausalito Historic Landmarks Borad's (HLB's) review of the 2005 HRE and concluded that due to the fact that no official method exists to assess local level of significance of the subject buildings and would defer the determination of local significance to the HLB (Carey & Co. Inc. 2007).

Page & Turnbull prepared an HRE for 1745 Bridgeway in 2015 (2015 HRE) and concluded that the subject building is not eligible for listing on the CRHR but appears to be eligible for listing on the local historic registers (Page & Turnbull 2015).

On May 27, 2015, HLB reviewed the 2007 Memo and 2015 HRE to evaluate the historic significance of the four existing structures. The HLB found no significance under the following criteria (City of Sausalito 2015):

- Is the structure associated with events that have made a significant contribution to the broad patterns of the history, culture, or heritage of Sausalito, California, or the United States?

- Is this structure associated with the life or lives of one or more people important in our past?
- Does the structure embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values?
- Has the structure yielded, or may it be likely to yield, information important in prehistory or history?

The HLB concluded their review by stating that based upon the information available and presented, the structures on the project site are not considered to be a significant local historic resource. The HLB also requested that documentation pursuant to the Historic American Building Survey guidelines be completed as a Condition of Approval (as described in Chapter 2, "Project Description"). Therefore, none of the buildings were eligible for listing in the Sausalito Local Register based on HLB's review of the 2007 Memo and 2015 HRE.

Due to the length of time that elapsed from the 2015 HLB determination, the Historic Preservation Commission (HPC) held a second public hearing on October 24, 2019 to re-confirm the historic status of the existing buildings on the project site. The HPC considered the 2006 HRE prepared by Carey & Co. Inc., the 2015 HRE Page & Turnbull, and a supplemental Historic Resource Determination Information Packet for the project site. The project site is not within a Historic Overlay District and does not contain any Designated Historic Structures. During the public hearing, no public comments were received. The HBL, based on the review of the HREs and supplemental packet, determined that the existing buildings on the project site do not qualify as historical resources according to the criteria contained in Public Resources Code Section 21084.1 and Title 14, California Code of Regulations, Section 15064.5. Therefore, the on-site buildings are not eligible for listing in the CRHR based on HPC's review of the existing HREs.

3.6.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No impact. The buildings at 1745 Bridgeway, 1751 Bridgeway, 1757 Bridgeway, and 160 Filbert Avenue have been recommended not eligible for listing in the California Register of Historical Resources. The City's Historic Preservation Commission concurred with this finding and the City's Historic Landmark Board concluded that none of the buildings were eligible for local listing. Therefore, there are no historical resources, as defined in Section 15064.5 of the CEQA Guidelines, present on the project site. Therefore, demolition of these structures would not result in a significant environmental impact as defined by CEQA Guidelines. No impact would occur, and no mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant with mitigation incorporated. The records search revealed no previously recorded precontact or historic-era archaeological resources within the project site. ALTA staff archaeologist and FIGR Tribal Monitor conducted an archaeological field survey of the project site on November 15, 2024. Shell fragments were found on the ground surface within two garden areas. The source of the shell appeared to be abalone and clam embedded in concrete retaining walls and related to modern occupation of the project site. These items were likely brought into the area during modern times and do not represent archaeological material. Therefore, no archaeological resources were identified within the project site. However, the project would involve ground disturbing activities (e.g., excavation and grading) during site preparation and building construction. In addition, the project would include relocation of a sewer line and connection to electricity infrastructure. The proposed utility connections would involve excavation activities and would occur within the project site and on existing public rights-of-way. Archaeological deposits may be uncovered during ground disturbing activities within the project site and public rights-of-way. These activities could damage or destroy previously undiscovered unique archaeological resources pursuant to Section 15064.5. Impacts would be potentially significant.

Mitigation Measure CR-1: Worker Cultural Resources Training

Prior to any ground-disturbing activity, an initial sensitivity session shall be provided by a Secretary of the Interior-qualified professional archaeologist to all project employees, contractors, subcontractors, and other professionals prior to their involvement in any ground-disturbing activities, with subsequent training sessions occurring on as-needed basis to accommodate new personnel becoming involved in the project. The qualified professional archaeologist shall invite FIGR to participate in and present Native American perspectives during the training sessions if they so choose. The sensitivity training shall address: the cultural (Native American and archaeological) sensitivity of the project site and a tutorial providing information on how to identify these types of resources; appropriate behavior; worker access routes and restrictions; work area cleanliness; safety procedures when working with monitors; and consequences in the event of noncompliance.

Mitigation Measure CR-2: Tribal Monitoring

A minimum of three weeks prior to ground disturbance the project applicant shall retain and compensate for the services of a FIGR Tribal Monitor; construction activities shall proceed if no response is received from FIGR 48 hours prior to ground disturbing activities. Ground disturbing activities may include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Monitor has indicated that the site has a low potential for impacting tribal cultural resources.

Mitigation Measure CR-3: Unanticipated Discovery of Archaeological Resources

In the event that a historic-period archaeological resource (such as concentrated deposits of bottles or bricks with makers marks, amethyst glass, ceramic or metal pipes, or other historic refuse) or a precontact archaeological resource (such as lithic scatters, midden soils), is uncovered during grading or other construction activities, all ground-disturbing activity within 50 feet of the discovery shall be halted until a qualified archaeologist who meets the Secretary of the Interior's Professional Standard for archaeology can assess the significance of the find. The City of Sausalito will be notified of the potential find and a qualified archeologist shall be retained to investigate its significance. If the find is suspected to be Native American in origin, the culturally and geographically affiliated Native American tribe shall be contacted for their input on the preferred treatment of the find. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria. If the archaeologist determines that the find does not meet the California Register of Historical Resources standards of significance for cultural resources, construction may proceed. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the City of Sausalito to follow accepted professional standards such as further testing for evaluation or data recovery, as necessary. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results.

Significance after Mitigation

Implementation of Mitigation Measures CR-1 to CR-3 would reduce potential impacts to less than significant by requiring worker cultural resources training, tribal monitoring, the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant archaeological resources. Therefore, the impact would be less than significant with mitigation incorporated.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less-than-significant impact. Based on documented research, no evidence suggests that any precontact or historic era marked or unmarked human interments are present within or in the immediate vicinity of the project site. However, grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown grave sites and Native American remains could be present within the project site and could be uncovered by project-related construction activities. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and Public Resources Code (PRC) Section 5097. These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities within a 50-foot radius shall be halted immediately, and the appropriate County Coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, Native American Heritage Commission (NAHC) shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant, and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94. Compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, this impact would be less than significant.

3.7 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.7.1 Environmental Setting

ENERGY FACILITIES AND SERVICES IN THE PROJECT AREA

Electricity and natural gas are supplied to the project area by Pacific Gas and Electric Company (PG&E). Marin Clean Energy (MCE), a public, not-for-profit community choice aggregate (CCA), is the primary electric generation provider in the project area. California State legislation requires that community choice programs like MCE operate as the primary electric generation service provider through an automatic enrollment process. Accounts are automatically enrolled with MCE's Light Green 60 percent renewable energy service unless the account holder opts out (MCE n.d.). CCAs in the San Francisco Bay Area, including MCE, utilize PG&E infrastructure to deliver low-carbon electricity to their customers. The project site is not currently enrolled in MCE. See Table 3.6-1 below for a summary of PG&E's power content label and Table 3.6-2 for MCE's power content label. The proportion of electricity generated from eligible renewable energy sources is anticipated to increase over time to comply with the goals of Senate Bill 1020, which requires that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent by December 31, 2040, 100 percent by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

Table 3.6-1 Pacific Gas and Electric Power Content Label (2022)

Energy Resource	Percent (%) of Total
Eligible Renewable (biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind)	38%
Coal	0%
Large hydroelectric	8%
Natural Gas	5%
Nuclear	49%
Other	0%
Unspecified Power[1]	0%
Total	**100%**

[1] Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

Source: CEC 2023a.

Table 3.6-2 Marin Clean Energy Power Content Label (2022)

Energy Resource	Percent (%) of Total
Eligible Renewable (biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind)	60%
Coal	0%
Large hydroelectric	40%
Natural Gas	0%
Nuclear	<1%
Other	0%
Unspecified Power[1]	1%
Total	**100%**

Notes: Totals may not sum due to rounding.

[1] Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

Source: CEC 2023b.

Energy Types and Sources

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas.

In 2022, total utility-scale electric generation for California was 287,220 gigawatt-hours (GWh), up 3.4 percent (9,456 GWh) from 2021. Utility-scale renewable generation increased 10.2 percent (9,520 GWh) in 2022 to 102,853 GWh from 93,333 GWh in 2021, solar generation increased 24.1 percent (9,492 GWh) to 48,950 GWh in 2022 from 39,458 GWh in 2021. Renewable and non-greenhouse gas (-GHG) (nuclear and large hydroelectric) resources accounted for 54.2 percent of total energy generation, compared to 52.1 percent in 2021 and, overall, all hydroelectric generation including imports accounted for 10.4 percent (29,758 GWh) of total system electric generation in 2022 (CEC 2023c).

Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuel. The use of these fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, Assembly Bill 32 Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- biodiesel,
- electricity,
- ethanol (E-10 and E-85),
- hydrogen,
- natural gas (methane in the form of compressed and liquefied natural gas),
- propane,
- renewable diesel (including biomass-to-liquid),
- synthetic fuels, and
- gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of California Energy Commission (CEC), CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of December 2023, California contained over 50,335 alternative fueling stations (AFDC 2023).

ENERGY USE FOR TRANSPORTATION

In 2021, the transportation sector comprised the largest end-use sector of energy in California totaling 37.8 percent, followed by the industrial sector totaling 23.2 percent, the residential sector at 20.0 percent, and the commercial sector at 19.0 percent (EIA 2023). On-road vehicle use comprises about 90 percent of the petroleum consumed in California.

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of GHG production and the project's impacts on climate change, refer to Section 3.8, "Greenhouse Gas Emissions."

3.7.2 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-significant impact. Energy would be required to construct, operate, and maintain construction equipment and to produce and transport construction materials associated with construction of the project. The project would be constructed over an approximately 24- to 30-month period. The one-time energy expenditure required to construct the parking lot and infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from the operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks transporting materials to and from the project site. The project would increase energy consumption for temporary construction activities related to vehicle use and material transport. However, construction activities would be temporary. Energy and fuel consumption would cease once construction activities are complete and would not require long-term energy or fuel demand. Construction activities would follow standard practices related to energy consumption. Energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction activities in the region. In addition, on-road gasoline and diesel fuel consumption associated with construction activities would decrease every year as the vehicle fleet becomes more fuel-efficient over time. There is no basis to conclude that construction would be wasteful of fuel or other energy resources; therefore, it is expected that only the necessary amount of fuel would be consumed to complete construction of the project.

Operation of the project would result in the consumption of electricity for lighting. No natural gas would be consumed, and all power needs would be met through electrical connections. Operation of the project would also result in the consumption of fossil fuels from vehicle trips. State and federal regulations regarding fuel efficiency standards for vehicles in California are designed to reduce wasteful, inefficient and unnecessary use of energy for transportation. Over time, these regulations and efficiency standards would reduce fuel consumption from fossil fuels.

Once operational, the project would increase transportation and building energy; however, the project would not consume natural gas. The project site is located within 0.5 mile of existing transit stops and would include improved bicycle and pedestrian amenities. These factors could increase the use of alternative modes of transportation and promote the reduction of single-occupancy vehicle trips and thus could further reduce VMT and, therefore, fuel consumption. According to Appendix F of the State CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall per capita energy consumption, decreasing reliance on oil, and increasing reliance on renewable energy sources. As stated above, the project would be all-electric contribute to reducing countywide VMT per capita and include electric vehicle (EV)-ready and EV-capable parking spaces, meeting the mandatory requirements of the CalGreen code, to promote the use of EVs. The project would not develop uses or involve activities that would conflict with goals of decreasing per capita energy consumption, reliance on oil (petroleum), or increasing uses of renewable energy sources, or that would result in wasteful, inefficient, or unnecessary consumption of energy. The impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less-than-significant impact. See Impact a) in Section 3.8, "Greenhouse Gas Emissions," for an in-depth analysis of the project's consistency with the 2022 Scoping Plan. As determined by the analysis in Section 3.8, the project would be consistent with the priority areas identified in Appendix D, "Local Actions," of the 2022 Scoping Plan. Therefore, the impact would be less than significant.

3.8 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.8.1 Environmental Setting

The site slopes uphill in a southerly direction, from about 30 feet in elevation along Bridgeway to between 66 and 73 feet in elevation along Filbert Avenue. A Geotechnical Engineering Study has been prepared for the project by Earth Systems Pacific in 2018 (Earth Systems Pacific 2018). The Geotechnical Engineering Study uses data derived from field reconnaissance, evaluation of the general geology and seismicity of the site, sampling of the subsurface soils of the site, and laboratory testing of the boring samples obtained. The Geotechnical Engineering Study is provided in Appendix E.

The project site is not within the Alquist-Priolo earthquake fault zone. The major fault lines nearest to the project site include the San Andreas Fault (located approximately 7.2 miles to the southwest) and the Hayward Fault (11.7 miles to the northeast) (Earth Systems Pacific 2018). Neither of these fault zones run through the City of Sausalito or underneath the project site. The project site is located within the San Francisco Bay Area, which is considered to be an active seismic region. Although the project site is not within an active fault zone, the project site is located within an active seismic region that may cause strong seismic ground shaking in the event of an earthquake. The result of subsurface exploration by Earth Systems Pacific in 2018 indicated that the project site is underlain by clayey soils and bedrock, which are generally not susceptible to seismic related ground failure or liquefaction (Earth Systems Pacific 2018). The test boring samples analyzed in the geotechnical report indicate the presence of soil with moderately high expansive potential on the project site (Earth Systems Pacific 2018).

As indicated in the City of Sausalito General Plan much of Sausalito consists of hilly terrain, and hillside slipping, including landslides, are sources of great risk in the city (City of Sausalito 2021). The project site is located at the bottom of a hill and the Geotechnical Engineering Study indicated the presence of sloping-soil conditions on the project site (Earth Systems Pacific 2018).

3.8.2 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No impact. As discussed under Section 3.8.1, the major fault lines nearest to the project site include the San Andreas Fault and the Hayward Fault, which are approximately 7.2 miles to the southwest and 11.7 miles to the northeast, respectively. The project site is not within the Alquist-Priolo earthquake fault zone. Therefore, implementation of the project would not adversely affect persons or property due to the rupture of a known earthquake fault. No impact from rupture of a known earthquake fault would occur.

ii) Strong seismic ground shaking?

Less-than-significant impact. The project would replace the existing vacant residential buildings with 19 residential units in two new buildings. The project site is located within the San Francisco Bay Area, which is considered to be an active seismic region. The project design would be subject to seismic standards and codes, including Title 24 of the CBC. The City would review and approve the project plans to ensure compliance with the latest version of the CBC. Compliance with the CBC and review and approval by the City would ensure that the project is designed, constructed, and operated to reduce damage and minimize loss of life associated with strong seismic ground shaking. Therefore, the proposed project would not cause substantial adverse effects from strong seismic ground shaking. This impact would be less than significant, and no mitigation is required.

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

Less than significant with mitigation incorporated. Liquefaction refers to the liquefied condition and subsequent softening that can occur in soils when they are subjected to cyclic strains, such as those generated during a seismic event. Saturated soil conditions, low soil density, grain sizes within a certain range, and a sufficiently strong earthquake, in combination, create potential for liquefaction. The result of subsurface exploration summarized in the

project-specific geotechnical study indicated that the project site is underlain by clayey soils and bedrock, which are generally not susceptible to seismic-related ground failure or liquefaction (Earth Systems Pacific 2018).

Slope failure or land sliding most frequently occurs under non-seismic conditions, typically during the winter or spring as a result of rainfall but can be triggered or accelerated by ground shaking. In southern Marin County, the potential for seismically induced land sliding depends upon a number of factors, including the nature of bedrock, nature and depth of soils, angle and direction of the slope, and moisture content. The most common type of earthquake-induced ground failures are small sloughs or rockslides on steep cut slopes. Movement can also occur in pre-existing landslides. The project site is located at the bottom of a hill and the project-specific geotechnical study indicated the presence of sloping soil conditions on the project site. The impacts from landslides would be potentially significant.

Mitigation Measure GEO-1: Implement Geotechnical Recommendations

To minimize potential impacts from seismic events and the presence of adverse soil conditions, the geotechnical design recommendations identified in the Geotechnical Engineering Study prepared by Earth Systems Pacific on November 6, 2018 shall be incorporated into the design of the buildings and construction specifications, including but not limited to recommendations for site preparation, soil compaction, native or import fill materials, foundation design, and construction methods.

Significance after Mitigation

Mitigation Measure GEO-1 would require implementation of geotechnical recommendations to minimize potential impacts from seismic events. Geotechnical recommendations include recommendations for site preparation, grading, fill placement, building foundations, and retaining walls. Implementation of the recommendations contained in the project-specific geotechnical study would reduce risks associated with seismic events to a less-than-significant level. The impacts related to seismic ground failure, including liquefaction and landslides, would be less than significant with mitigation incorporated.

b) Result in substantial soil erosion or the loss of topsoil?

Less-than-significant impact. The project would replace the existing vacant residential buildings with 19 residential units in two buildings. Following demolition, soil underneath the project site would be exposed and would be particularly prone to erosion during excavation and site development activities, especially if construction was to coincide with heavy rains. As discussed further in Section 3.10, "Hydrology and Water Quality," the potential for erosion would be minimized through implementation of BMPs for stormwater, such as temporary catchment basins and/or sandbags, which would control runoff and contain sediment transport within the project site during construction. Therefore, substantial sedimentation and erosion would not occur during construction. During project operation, the onsite buildings, pavement, landscaping, and appropriate drainage infrastructure would minimize the potential for on-site erosion. Therefore, the project would not result in substantial soil erosion or the loss of topsoil. The impact would be less than significant, and no mitigation is required.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than significant with mitigation incorporated. The project site contains soil with moderately high expansive potential as indicated in the test boring samples analysis included in the project-specific geotechnical study (Earth Systems Pacific 2018). Soils with high expansive potential are considered unstable because structures built on such soil are at greater risk of incurring damage if not properly designed. In effect, the project would be subject to CBC requirements and review and approval by the City, which would ensure that the project would be designed, constructed, and operated to minimize risks associated with geologic hazards. In addition, the project would implement Mitigation Measure GEO-1, which would require incorporating the recommendations outlined in the project-specific geotechnical study. Geotechnical recommendations include recommendations for site preparation, grading, fill placement, building foundations, and retaining walls. Implementation of the Mitigation Measure GEO-1

would require incorporation of geotechnical recommendations for foundation design, soil compaction, and fill materials requirements into project design to ensure that the impacts related to unstable soils would be less than significant. Therefore, the impact would be less than significant with mitigation incorporated.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less than significant with mitigation incorporated. As described in Section 3.8.1, the test boring samples analyzed in the geotechnical report indicate the presence of soil with moderately high expansive potential on the project site (Earth Systems Pacific 2018). The project would implement Mitigation Measure GEO-1, which requires incorporating the recommendations outlined in the Geotechnical Engineering Study. Geotechnical recommendations include recommendations for site preparation, grading, fill placement, building foundations, and retaining walls. Implementation of Mitigation Measure GEO-1 would require incorporation of geotechnical recommendations for foundation design, soil compaction, and fill materials requirements into project design to ensure that the impact associated with expansive soils would be less than significant. Therefore, the impact would be less than significant with mitigation incorporated.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No impact. The project would tie into the existing sewer system and would not use a septic tank system or other alternative wastewater disposal system. Therefore, there would be no impact, and no mitigation is required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant with mitigation incorporated. No known or unknown paleontological resources are expected to be present on the project site, and there is no evidence that the project site is sensitive to paleontological resources because of the location, local geology, and level of disturbance of the project area. However, it is possible that paleontological resources could be uncovered during construction. Impacts would be potentially significant.

Mitigation Measure GEO-2: Unanticipated Discovery of Paleontological Resources

If paleontological resources are discovered during earthmoving activities, the construction supervisor shall immediately cease work in the vicinity of the find and notify the City. A qualified paleontologist shall be retained to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the lead agency to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Significance after Mitigation

Mitigation Measure GEO-2 would require stop work and preparation of recovery plan if paleontological resources are discovered during construction. The impact to unique paleontological resources would be less than significant with mitigation incorporated.

3.9 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

3.9.1 Environmental Setting

GREENHOUSE GAS EMISSION SOURCES

Statewide

GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2021 was 381 million metric tons of carbon dioxide (CO_2) equivalent ($MMTCO_2e$) (CARB 2023). Emissions of CO_2 are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from non-metallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. NO_X is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing CO_2 from the atmosphere. Table 3.8-1 summarizes the statewide GHG inventory for California by economic sections, which shows that transportation, industry, and electricity generation are the largest GHG emission sectors.

Table 3.8-1 Statewide GHG Emissions by Economic Sector

Scoping Plan Sector	2021 Emissions ($MMTCO_2e$)	Percentage
Transportation	145.6	38%
Industrial	73.9	19%
Electricity	62.4	16%
Residential & Commercial	38.8	10%
Agriculture	30.9	8%
High GWP	21.3	6%
Waste	8.4	2%

Notes: $MMTCO_2e$ = million metric tons of carbon dioxide equivalent; GWP = global warming potential.

[1] Total emissions are approximate value based on 2019 total California emissions. Totals may not equal the sum of the numbers because of independent rounding.

Source: CARB 2023.

City of Sausalito

The *City of Sausalito Community Greenhouse Gas Emissions Inventory for the Year 2022* (2022 GHG Inventory) provides a GHG emissions inventory for the year 2022. Table 3.8-2 summarizes Sausalito's community GHG emissions

by sources for 2022. Transportation and Built Environment – Natural Gas are the two largest GHG emissions sources in Sausalito. Natural gas is used in residential, commercial, and industrial buildings to provide space and water heating and power appliances (Marin Climate and Energy Partnership 2024).

Table 3.8-2 Sausalito Community GHG Emissions by Sources

Source	Total Emissions ($MTCO_2e$)	Percent of Total
Built Environment – Electricity	1,270	2.5%
Built Environment – Natural Gas	16,080	31%
Transportation	32,500	62.8%
Waste	1,166	2.3%
Off-Road	0	0%
Water	136	<1%
Wastewater	616	1.2%
Total	**51,768**	**100%**

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent.

Source: Marin Climate and Energy Partnership 2024.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 3.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014: 10). According to CEC, temperatures in California will warm up by approximately 2.7°F above 2000 averages by 2050 and by 4.1°F to 8.6°F by 2100, depending on emission levels (CEC 2012: 2).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and the resulting rise in global average temperature. In recent years, California has been marked by extreme weather and its effects. According to California Natural Resources Agency's (CNRA) *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018: 55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016-2017 water year (CNRA 2018: 64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the amount of precipitation falls as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018: 190–192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline could rise up to 10 feet by 2100, which is approximately 30–40 times faster than the sea-level rise experienced over the last century (CNRA 2017: 102). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure and crop production (CNRA 2018: 64, 116–117, 127).

2022 BAAQMD JUSTIFICATION REPORT

BAAQMD released its 2022 Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans, which contains recommended thresholds of significance for use in determining whether a project will have a significant impact on climate change. BAAQMD recommends that the thresholds of significance identified in the 2022 BAAQMD Justification Report be used by public agencies for CEQA compliance. In

its analysis, BAAQMD found that a new land use development project proposed today should incorporate design elements to do its "fair share" of implementing the goal of carbon neutrality by 2045. If a project is designed and built to incorporate the design elements identified in the 2022 Justification Report, then the project will contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project will not make a cumulatively considerable contribution to global climate change. The thresholds for land use projects include two options, either option "A" or option "B." Option "A" requires that projects incorporate building design elements (such as excluding natural gas appliances or natural gas plumbing, in both residential and nonresidential development; and avoiding any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines) and transportation design elements (such as achieving a reduction in project-generated VMT for residential projects at 15 percent below the existing VMT per capita; and achieving compliance with off-street EV requirements in the most recently adopted version of CALGreen Voluntary Tier 2 standard). Option "B" requires projects be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

PLAN BAY AREA 2050: STRATEGY FOR A SUSTAINABLE REGION

On October 21, 20121, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) adopted Plan Bay Area 2050, an integrated transportation and land-use strategy through 2050 that serves as the region's long-range plan to meet the requirements of SB 375. Working in collaboration with cities and counties, Plan Bay Area 2050 advances initiatives to expand housing and transportation choices, create healthier communities, and build a stronger regional economy. Plan Bay Area 2050 is expected to reduce emissions from transportation significantly in the years leading up to 2035, representing a 20 percent decrease in per capita emissions when compared to 2005 (meeting the state mandate of a 19 percent reduction by that year) — if all plan strategies are implemented (ABAG and MTC 2021).

3.9.2 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant with mitigation incorporated. Construction of the project would result in GHG emissions from activities such as the operation of construction equipment, material hauling, and worker commutes. According to the BAAQMD CEQA Guidelines, because construction emissions are temporary and variable, the BAAQMD has not developed a quantitative threshold of significance for construction-related GHG emissions (BAAQMD 2022). Regarding operations, the BAAQMD CEQA Guidelines states that a project must contribute its portion of what is necessary to achieve California's long-term climate goals to reach a less-than-significant impact related to climate change. According to BAAQMD CEQA Guidelines, a project contributes its "fair share" by complying with option "A" or option "B" as described in Section 3.8.1. While the City of Sausalito has an adopted climate action plan (CAP), the CAP did not undergo the CEQA review process and is therefore not applicable to this analysis. Therefore, project impacts are analyzed based on consistency with option "A." The project would feature all electric design but would not feature CalGreen Tier 2-compliant EV chargers as required under option "A." As described in Section 3.17, "Transportation," the project would not exceed the VMT threshold of 13.4 (i.e., 15 percent below existing Countywide VMT per resident). Additionally, as discussed in Section 3.6, "Energy," the project would not result in the wasteful, inefficient, or unnecessary consumption of energy. However, because the project would not meet the Tier 2 Voluntary Standards for EV charging of the CalGreen code, the project would not comply with option "A" to demonstrate that it is contributing its "fair share" to achieve California's long-term climate goals.

As stated in its Justification Report, BAAQMD's thresholds were designed to ensure that local governments do their "fair share" to contribute to the statewide goal of achieving carbon neutrality by 2045, as codified in AB 1279 (BAAQMD 2022). Additionally, the requirements for option "A" are similar to the direction provided in Appendix D,

"Local Actions," of the 2022 Scoping Plan which identifies building decarbonization, VMT reductions, and the electrification of the mobile source sector as key priority areas that local jurisdictions can target to do their "fair share" in assisting the state in meeting its long-term goal of carbon neutrality by 2045 (CARB 2022). The 2022 Scoping Plan explains that, "[a]bsent consistency with an adequate, geographically specific GHG reduction plan such as a CEQA-qualified CAP… the first approach the State recommends for determining whether a proposed residential or mixed-use residential development would align with the State's climate goals is to examine whether the project includes key project attributes that reduce operational GHG emissions while simultaneously advancing fair housing" (CARB 2022). Because the project as currently designed does not include Tier 2 EV chargers, the project would not meet the criteria for option "A" and would therefore not be considered consistent with the priority areas identified in the 2022 Scoping Plan. Therefore, the project would not be consistent with the 2022 Scoping Plan and would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with state GHG reduction goals.

Mitigation Measure GHG-1: Install CalGreen Tier 2-Compliant On-site Electric Vehicle Charging Infrastructure

Prior to the issuance of construction permits, the project applicant shall incorporate the appropriate number of EV charging equipment to meet the Tier 2 requirements of Part 11 of the Title 24 California Building Code (CalGreen code) in effect at the time of project construction. Requirements are as follows for residential land uses:

- **Residential Parking:** For each dwelling unit, a dedicated 208/240-volt branch circuit shall be installed in the raceway (i.e., the enclosed conduit that forms the physical pathway for electrical wiring to protect it from damage) required by Section A4.106.4.1 of the CalGreen Code. The branch circuit and associated overcurrent protective device shall be rated at 40 amperes minimum. Other electrical components, including a receptacle or blank cover, related to this section shall be installed in accordance with the California Electrical Code.

Significance after Mitigation

Implementation of Mitigation Measure GHG-1 would require that the project comply with the Tier 2 EV charging requirements outlined in the CalGreen code and would therefore contribute its "fair share" to achieving California GHG reduction goals as outlined under option "A" by including Tier 2 EV charging, featuring all-electric design, and achieving at least a 15 percent reduction in VMT compared to the countywide average. Furthermore, because BAAQMD's GHG thresholds were developed to reflect the priority reduction areas outlined in Appendix D of the 2022 Scoping Plan, consistency with the requirements of option "A" would also mean that the project is consistent with the 2022 Scoping Plan's GHG reduction goals. The impact would be less than significant with mitigation incorporated.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant with mitigation incorporated. The 2022 Scoping Plan is the applicable plan adopted for the purpose of reducing GHG emissions. As discussed in Impact a) above, the project would not be consistent with the 2022 Scoping Plan. Implementation of Mitigation Measure GHG-1 would require the project to install Tier 2 EV charging infrastructure as required by the CalGreen code and would therefore contribute its "fair share" to achieving California GHG reduction goals as outlined under option "A" in Section 3.8.1 of the BAAQMD CEQA Guidelines. Consistency with the requirements of option "A" would also mean that the project is consistent with the 2022 Scoping Plan's GHG reduction goals. Therefore, the impact would be less than significant with mitigation incorporated.

3.10 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.10.1 Environmental Setting

The State Water Resources Control Board's (SWRCB) GeoTracker database along with the California Department of Toxic Substances Control's (DTSC's) Envirostor database provide a comprehensive list of the facilities and sites identified as meeting the "Cortese List" requirements pursuant to Government Code section 65962.5. The SWRCB GeoTracker database provides data relating to leaking underground storage tanks (LUST) and other types of soil and groundwater contamination, along with associated cleanup activities. In addition, the DTSC Envirostor database provides data related to hazardous materials spills and cleanups.

According to the GeoTracker database, no active hazardous materials sites are located within 0.5 mile of the project site (SWRCB 2024). Six hazardous material sites in the vicinity of the project site have been closed: a LUST cleanup site located at 414 Turney Street, a LUST cleanup site located at 10 Liberty Ship Way, a LUST cleanup site located at 30

Liberty Ship Way, a military UST site located at 2100 Bridgeway Boulevard, a military cleanup site located at 25 Liberty Ship Way, and a program cleanup site located at 2340 Marinship Way. The DTSC Envirostor database, however, shows that two active hazardous materials sites are located within 0.5 mile of the project site, including the Galilee Harbel Parcel 1 at 300 Napa Street and the South Pacific Division Laboratory at 25 Liberty Ship Way. Galilee Harbel Parcel 1 is listed as a voluntary cleanup site while the South Pacific Division Laboratory is listed as a state response site (DTSC 2024).

The closest school is the Bayside Martin Luther King Junior Academy Nevada Campus, which is located approximately 0.6 mile northwest of the project site. The nearest airport, the Marin County Airport, is located approximately 12 miles to the north. The project site is not within the boundaries of an airport land use plan area.

The Marin County Operation Area Emergency Operations Plan (EOP) addresses Marin County's planned response to emergency and disaster situations associated with natural and human-caused disasters. The EOP contains an evacuation plan for all areas of the County, which identifies evacuation routes within each County jurisdiction including the City of Sausalito. The routes that would be used in the event of an evacuation in the city include Bridgeway, Spencer Avenue, Alexander Avenue, Highway 101, Donahue Street, and Shoreline Highway. For people who have access to boats, evacuation could be potentially taken via Richardson's Bay. Other main thoroughfares in the city could also be used in the event of an evacuation.

The project site is within a local responsibility area (LRA) but is outside designated moderate, high, or very high Fire Hazard Severity Zones (FHSZs) in the LRAs (CAL FIRE 2024). The project site is located within one mile of a state responsibility area (SRA) designated as a very high FHSZ. The project site is also located within the Wildland Urban Interface (WUI) Zone as determined by SMFPD (SMFPD 2020).

3.10.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-significant impact. Commonly used hazardous substances associated with heavy construction equipment such as gasoline, diesel fuel, lubricating oil, grease, and solvents would be utilized during construction of the project. These materials are not considered acutely hazardous and are used routinely throughout urban environments for similar types of construction projects. These materials would be transported, used, disposed of, and handled in accordance with all applicable laws and regulations concerning the management, use and transport of hazardous materials. Applicable regulations include but are not limited to the federal Resource Conservation and Recovery Act, which includes requirements for hazardous solid waste management; and the DTSC Environmental Health Standards for the Management of Hazardous Waste (California Code of Regulations Title 22, Division 4.5), which include standards for generators and transporters of hazardous waste. Use of common hazardous substances for their intended purpose during construction would not pose a significant risk to the public or environment.

During project operations, hazardous materials that would be used for the maintenance of the residential structures and landscaped areas include chemical reagents, solvents, fuels, paints, cleansers, pesticides, and fertilizers. These materials would be similar to those currently used on the existing residential structures and on structures in other areas of the project vicinity. The management, use, storage, and transportation of such hazardous materials are subject to applicable laws and regulations.

Adherence to applicable laws, regulations, and plans would minimize risks associated with the routine transport, use, and disposal of hazardous materials. In addition, the Marin County Area Operations EOP outlines procedures to address evacuation, clean up, and communication protocols to protect community members in the event of a hazardous materials spill. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The impact would be less than significant, and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than significant with mitigation incorporated. The project would involve demolishing all existing on-site structures. The existing on-site structures were constructed prior to the late 1980's, and therefore, may contain lead-based paint (LBP) and/or asbestos-containing materials. Demolition of these structures may have the potential to release lead particles and asbestos fibers into the air, where they could potentially pose a health risk to construction workers and the general public. Impacts would be potentially significant.

Mitigation Measure HAZ-1. Conduct Lead-Based Paint Survey

Prior to demolition of structures that may contain LBP, a comprehensive US Environmental Protection Agency or US Department of Housing and Urban Development level Lead-based Paint Survey shall be conducted. If any lead-based paint is identified, it shall be removed from the site in accordance with all applicable regulations, including Occupational Safety and Health Administration guidelines.

Mitigation Measure HAZ-2. Conduct Asbestos Survey

Prior to demolition, a complete Asbestos Hazard Emergency Response Act-level pre-demolition Asbestos Survey shall be conducted. A licensed asbestos abatement contractor shall be retained to abate identified asbestos-containing material in accordance with all applicable regulations.

Significance after Mitigation

Mitigation Measures HAZ-1 and HAZ-2 would require conducting an LBP survey and an asbestos survey prior to demolition. If LBP and asbestos materials are required to be removed in accordance with applicable regulation if they are identified during surveys, the implementation of Mitigation Measures HAZ-1 and HAZ-2 would reduce the impacts related to release of hazardous materials into the environment to a less-than-significant level. Therefore, the impact would be less than significant with mitigation incorporated.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The nearest school, the Bayside Martin Luther King Junior Academy Nevada Campus, is located approximately 0.6 mile northwest of the project site. No existing or proposed schools are within one-quarter mile of the project site. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur, and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-significant impact. As discussed in Section 3.9.1, review of the GeoTracker and Envirostor databases determined that two active hazardous materials sites are located on or within 0.5 mile of the project site. These include Galilee Harbel Parcel 1 at 300 Napa Street and the South Pacific Division Laboratory at 25 Liberty Ship Way. Galilee Harbel Parcel 1 is listed as a voluntary cleanup site while the South Pacific Division Laboratory is listed as a state response site (DTSC 2024). The project would replace the existing vacant buildings with two new multi-family buildings, and all activities related to the construction and operation of the project would take place within the project site. Therefore, the project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5. In addition, implementation of the project would not exacerbate conditions at the Galilee Harbor Parcel 1 or South Pacific Division Laboratory sites. The impact would be less than significant, and no mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No impact. The nearest airport to the project site is the Marin County Airport, which is located approximately 12 miles north of the project site. The project site is not within the area covered by the Marin County Airport Land Use Compatibility Plan and is located outside the 65 Community Noise Equivalent Level (CNEL) airport noise contour of this airport. In addition, the project site is not located within 2 miles of a public airport or in the vicinity of a known private airstrip. Therefore, the project would not result in airport safety hazards or excessive noise for people working in the project area. No impact would occur, and no mitigation is required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-significant impact. The project site would be served by the City of Sausalito Police Department and SMFPD, both of which are equipped to respond to an emergency on the site should the need occur. There are limited routes of access to and from the city; however, the project would not result in any temporary or permanent closures or other modifications of local roadways. The project would not obstruct evacuation routes during construction or operation. The impact would be less than significant, and no mitigation is required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less-than-significant impact. The project is located in a WUI Zone, and the nearest SRA FHSZ is within one mile of the project site. Due to the project location within a WUI Zone, SMFPD has identified conditions of approval applicable to the project. SMFPD conditions of approval related to fire prevention include but not limited to the use of construction materials consistent with CBC and California Residential Code, preparation of a vegetation management plan, provision of a hydrant within 100 feet of the new structures, provision of fire sprinkler systems, provision of fire detection system, provision of fire lanes according to California Fire Code (CFC), and provision of defensible space in accordance with CFC and Local Ordinance Section 109.3.2. Compliance with SMFPD's conditions of approval would ensure that the project structures or residents would not be exposed to a significant risk of loss, injury, or death involving wildland fires. The impact would be less than significant, and no mitigation is required.

3.11 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.11.1 Environmental Setting

SURFACE WATER

The City of Sausalito and the project site are located within the Richardson Bay Watershed. A watershed is the geographic area draining into a river system, ocean, or other body of water and includes the receiving waters. Watersheds are usually bordered and separated from other watersheds by mountain ridges or other naturally elevated areas. The creeks and streams in Richardson Bay Watershed drain to Richardson Bay, a shallow, protected, biologically rich wildlife preserve. Richardson Bay is considered one of the most pristine estuaries on the Pacific Coast despite its urbanized periphery.

STORMWATER DRAINAGE

Drainage at the project site currently occurs via overland flow. Based on the site topography, stormwater drains primarily to the north and east toward Bridgeway Boulevard. The City of Sausalito Department of Public Works maintains a storm drain along Bridgeway Boulevard that expands to 30 inches in diameter prior to discharge via an outfall at the corner of the project site.

GROUNDWATER

The City of Sausalito and the project site are not located within a designated groundwater basin (DWR 2024). Marin Municipal Water District (MMWD) provides potable water to the City of Sausalito via local Marin reservoirs and the Russian River. Groundwater is not used as a primary water source in the city.

According to the geotechnical report prepared for the project, groundwater was encountered at depths ranging from 3 to 15 feet below ground surface (Earth Systems Pacific 2018). Fluctuations in groundwater levels may occur due to variations in rainfall and possibly due to the condition of the underground storm and sewer system. Groundwater likely would be encountered during construction and dewatering activities may be required.

FLOOD, TSUNAMI, AND SEICHE

According to the Federal Emergency Management Agency Flood Insurance Rate Map No. 06041C0526E, no portion of the project site is within the FEMA 100-year floodplain (FEMA 2016). The project site is not within the area susceptible to sea level rise (BCDC 2024). The project site is not within a tsunami hazard area (CGS 2024). In addition, the project site is not in proximity to an enclosed body of water that is susceptible to seiche.

3.11.2 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less-than-significant impact. Construction activities could potentially violate applicable water quality standards by introducing pollutants to stormwater runoff. There are two primary ways that construction activities could adversely affect water quality: ground disturbance and pollutant spills or leaks. Ground disturbance such as vegetation removal, compaction, grading, and temporary soil stockpiling could potentially increase sediment levels in stormwater runoff by eroding soils that have been loosened or newly exposed by construction activity. Materials that could spill or leak during construction include diesel fuel, gasoline, lubrication oil, cement slurry, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and construction-related trash and debris. The use of these materials would be limited to the minimum necessary to fuel vehicles, power equipment, and complete activities. Improper management of hazardous materials could result in accidental spills or leaks, which could locally contaminate stormwater runoff.

The project would involve approximately 0.58 acre of ground disturbance. Projects that disturb one or more acres are required to comply with the NPDES General Construction Permit and prepare a SWPPP that incorporates BMPs to control sedimentation, erosion, and contaminated runoff during construction. Since the project is approximately 0.58 acre in size, it would not be subject to this requirement. However, an erosion control plan has been prepared for the project pursuant to Chapter 11.17 of the Sausalito Municipal Code (Sheet C2 of Appendix A). The erosion control plan identifies the locations for fiber roll installation around the project site. The erosion control plan also provides details on the size and placement of fiber rolls to ensure that they are installed properly to prevent soil erosion and sediment discharge and prevent stormwater runoff. Although construction activities have the potential to adversely affect water quality, implementation of the project erosion control plan would ensure that potential construction-related impacts on water quality are avoided or substantially minimized.

The operation of the project is subject to the requirements of the Waste Discharge Requirements (WDRs) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (Phase II Permit). To meet the requirements of the Phase II Permit, the project must implement post-construction stormwater management controls for new development and redevelopment projects. The project would include installation of five bio-retention basins on-site to retain and treat stormwater and would include installation of storm drain lines that would tie into existing City storm drain infrastructure (see Sheet C1 of Appendix A). Implementation of the project erosion control plan and post-construction stormwater management controls would ensure that the project would not violate water quality standards or waste discharge requirements. The impact would be less than significant, and no mitigation is required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No impact. The project site is not located within a designated groundwater basin, and MMWD, which provides potable water to the City of Sausalito, obtains its water supply from local reservoirs and the Russian River. Groundwater is not used for potable water supply in the city. Therefore, the project would not affect groundwater resource supply and/or recharge. There would be no impact, and no mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less-than-significant impact. No streams or rivers are located in the vicinity of the project site. Therefore, the project would not alter the existing drainage pattern through alteration of the course of a stream or river. During project construction, drainage patterns on the project site would be temporarily altered due to grading activities. As discussed in Impact a) above, a project-specific erosion control plan has been prepared and would be implemented during construction, which would reduce the potential for construction-related erosion and siltation during project construction.

During operation, the project would result in an increase in impervious surfaces creating higher runoff volume, which could alter drainage pattern on-site. The project would be required to implement post-construction stormwater management controls, including installation and operation of a stormwater collection and treatment systems to erosion control and site stabilization measures. Specifically, the project would include installation of five bio-retention basins throughout the project site to ensure that sediment would be retained on-site during and after rain events (see Sheet C-1 of Appendix A). Therefore, substantial erosion and siltation would not occur during operations.

The project would not substantially alter the existing drainage pattern of the project site in a manner that would result in substantial erosion or siltation. This impact would be less than significant, and no mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; and

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Less than significant with mitigation incorporated. During construction, the existing structures would be demolished and removed. Following grading, additional excavation would be required to prepare the site for foundation and building construction. The site would be graded to establish appropriate building footing and establish site grade to direct runoff into existing stormwater systems. Project construction would not increase impervious surfaces on-site that would increase runoff or significantly increase stormwater flows to existing stormwater systems. The impacts associated with construction would be less than significant.

Once constructed, the project would result in an increase in impervious surfaces on-site and therefore has the potential to generate increased runoff. Rapid transport of runoff over impermeable surfaces could result in elevated peak flows, which could result in flooding on- or off-site and could exceed the capacity of storm drain. The impacts associated with operation would be potentially significant.

Mitigation Measure HYDRO-1. Conduct Hydrology-Hydraulics Study

Prior to the issuance of a grading or building permit, a hydrology hydraulics study shall be submitted to the City for review and approval. The hydrology-hydraulics study shall demonstrate that the proposed on-site bio-retention and storm drain system is designed such that there shall be no increase in peak flow rate in stormwater runoff when compared with the pre-project condition.

Significance after Mitigation

Mitigation Measure HYDRO-1 requires that a hydrology-hydraulics study be submitted and approved by the City prior to the issuance of a grading or building permit which demonstrates that the project 's on-site storm drain system is designed such that no increase in peak flow rate in stormwater runoff will result from the project when compared with the pre-project condition. The impact to the storm drainage system would be less than significant with mitigation incorporated.

iv) Impede or redirect flood flows?

No impact. As discussed in Section 3.10.1, the project site is outside of FEMA 100-year floodplain (FEMA 2016). The project is also not located in an area at risk from sea level rise (BCDC 2024). The project would not place new structures within a flood hazard area. Therefore, the project would have no impact related to impeding or redirecting flood flows, and no mitigation is required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No impact. The project site is not within a flood or tsunami hazard area and is not in proximity to an enclosed waterbody that could generate a seiche (FEMA 2016, CGS 2024). Also, the project is not in an area at risk from sea level rise (BCDC 2024, FEMA 2016). Therefore, the project would have no impact related to the release of pollutants due to project inundation, and no mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-significant impact. The project site is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) contains the region's water quality regulations and programs for implementing these regulations. As discussed in Impact a) above, the project would not substantially degrade water quality with the implementation of the project-specific erosion control plan, installation of bio-retention basins, and connection of proposed storm drain lines to the existing City storm drain infrastructure. Therefore, the project would not conflict with the Basin Plan.

The project site is not within the boundaries of a groundwater basin mapped by the California Department of Water Resources. Therefore, there are no sustainable groundwater management plans applicable to the project site. Also, the City of Sausalito does not use groundwater as a primary water source. Thus, the project would not substantially decrease groundwater supplies or interfere with groundwater recharge.

In summary, the project would not conflict with or obstruct implementation of the Basin Plan because the project would comply with all applicable permits and regulations governing the protection of water quality. Additionally, the project would not result in the unsustainable consumption of groundwater resources or otherwise interfere with groundwater recharge. Based on the above discussion, the proposed project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. The impact would be less than significant, and no mitigation is required.

3.12 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.12.1 Environmental Setting

The project site encompasses approximately 0.58 acre at 1751-1757 Bridgeway Boulevard and 160 Filbert Avenue in the City of Sausalito, California. The site consists of four residential structures that have been vacant for several years and are in a deteriorated condition. The site is designated for High Density Residential uses in the City's General Plan and is zoned as Multiple Family Residential (R-3) (City of Sausalito 2021; Marin County 2024).

3.12.2 Discussion

a) Physically divide an established community?

No impact. The project would replace the existing vacant residential buildings with 19 residential units in two buildings. Construction and operation of the project would be confined to the project site. The project would not involve features such as new roadways, new easements through established neighborhoods, or permanent street or sidewalk closures that would physically divide the surrounding established community. Therefore, the project would not physically divide an established community. No impact would occur, and no mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-significant impact. The project site is designated for High Density Residential uses in the City's General Plan and is zoned as Multiple Family Residential (R-3) (City of Sausalito 2021; Marin County 2024). As such, the project is consistent with residential use permitted under the zoning and land use designations for the site. The building height and FAR limits in the R-3 zoning district are 32 feet and 0.8, respectively. The project would include maximum building heights of 38 feet 9 inches for Building 1 and 34 feet 11 inches for Building 2. The FAR of the project would be approximately 1.0. As discussed in Section 2.3, because the project would provide more than 20 percent of its housing units for affordable households, the project is eligible for two incentives or concessions under Government Code Section 65915(d)(2). Incentives and concessions may include a reduction in site development standards or a modification of zoning code requirements or architectural design requirements. Concessions of City development standards necessary to accommodate the density bonus for the project include increasing the building height limit (from 32 feet to 38 feet 9 inches and 34 feet 11 inches) and FAR (from 0.8 to 1.0). Although the building heights and FAR of the project would exceed the maximum building height and FAR permitted in the R-3 zoning district, the project would use two density bonus concessions to request modification in development standards related to height and FAR. With the adoption of these concessions, the project would be consistent with the City's development standards for the project site. Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The impact would be less than significant, and no mitigation is required.

3.13 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.13.1 Environmental Setting

Eight sites in Marin County have been "designated" by the California State Department of Conservation Division of Mines and Geology as having significant mineral resources for the North Bay region; however, none of these sites are located within the City of Sausalito (Marin County 2005). The City of Sausalito General Plan does not identify locally important mineral resource sites (City of Sausalito 2021).

3.13.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No impact. The City of Sausalito does not contain a known mineral resource that is significant in the region or locally important (Marin County 2005; City of Sausalito 2021). No impact to mineral resources would occur, and no mitigation is required.

3.14 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Noise. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
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?	☐	☐	☒	☐

3.14.1 Environmental Setting

Prior to discussing the environmental setting and applicable noise standards, the following definitions of technical noise terms referenced throughout this section are provided.

- **Equivalent Continuous Sound Level (L_{eq}):** L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013: 2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq}, is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by the Caltrans and Federal Transit Administration (FTA) (Caltrans 2013:2-47; FTA 2018).
- **Maximum Sound Level (L_{max}):** L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013: 2-48; FTA 2018).
- **Day-Night Level (L_{dn}):** L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-decibel (dB) "penalty" applied to sound levels occurring during nighttime hours between 10:00 p.m. and 7:00 a.m. (Caltrans 2013: 2-48; FTA 2018).
- **Community Noise Equivalent Level (CNEL):** CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10:00 p.m. and 7:00 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7:00 p.m. and 10:00 p.m. (Caltrans 2013: 2-48).
- **Vibration Decibels (VdB):** VdB is the vibration velocity level in decibel scale (FTA 2018: Table 5-1).
- **Peak Particle Velocity (PPV):** PPV is the peak signal value of an oscillating vibration waveform. Usually expressed in inches/second (FTA 2018: Table 5-1).

EXISTING CONDITIONS

The area surrounding the project site is developed with residential, commercial, and public land uses. Office land uses, including the Southern Marin Fire District building, are located north of the project site across from Bridgeway and commercial land uses including a restaurant and convenience store are located approximately 1,000 feet west of the project site. Residential land uses are located to the east, south, and west of the project site. The project site and surrounding area experience noise associated with these surrounding land uses as well as noise from traffic on local roadways and the distant Highway 101. Based on a review of aerial photography, the predominant source of noise in the vicinity of the project site is traffic on Bridgeway. The northern frontage of the project site is located adjacent to Bridgeway, a four-lane divided major arterial roadway with posted speeds of 30 miles per hour within the vicinity of the project site. According to the City of Sausalito General Plan, the project site is located within the 60 dBA CNEL noise contour for Bridgeway (City of Sausalito 2021: HS-24).

Existing nearby sensitive receptors include the residences surrounding the project site. Three nearby sensitive receptors were identified for this analysis. The first identified receptor is a multi-family residence located at 150 Filbert Avenue, approximately 10 feet east of the project site. The second identified receptor is a residential building located at 1763 Bridgeway, approximately 10 feet west of the project site. The third identified receptor is a single-family residence located at 1741 Bridgeway, approximately 12 feet east of the project site.

APPLICABLE NOISE STANDARDS

Federal Transit Administration

FTA Division of Environmental Analysis developed the *Transit Noise and Vibration Impact Assessment Manual*, which provides guidance to engineers, planners, and consultants in assessing vibration from construction, operation, and maintenance of projects. To address the human response to ground vibration, FTA has set guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.13-1. FTA has also established construction vibration damage criteria, shown in Table 3.13-2.

Table 3.13-1 Groundborne Vibration Impact Criteria for General Assessment for Human Response

Land Use Category	GVB Impact Levels (VdB re 1 micro-inch/second) Frequent Events[1]	GVB Impact Levels (VdB re 1 micro-inch/second) Occasional Events[2]	GVB Impact Levels (VdB re 1 micro-inch/second) Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65[4]	65[4]	65[4]
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB re I microinch/second = vibration referenced to 1 microinch/second and based on the root mean square (RMS) velocity amplitude.

[1] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[2] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[3] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[4] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2018: 123-126.

Table 3.13-2 FTA Construction Damage Vibration Criteria

Land Use Category	PPV, in/sec
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Notes: PPV in/sec = peak particle velocity inches per second

Source: FTA 2018.

In addition to vibration criteria, FTA has also established construction noise criteria based on the land use type affected by noise and depending on whether construction would occur during the daytime or nighttime. The FTA criteria are as follows:

- Residential: 90 dBA L_{eq} (day) and 80 dBA L_{eq} (night)
- Commercial/Industrial: 100 dBA L_{eq} (day and night)

Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) established criteria for the impact of increases in ambient noise levels. Specifically, a noise level increase of 5.0 dB or greater, would typically be considered to result in increased levels of annoyance where existing ambient noise levels are less than 60 dB. Within areas where the ambient noise level ranges from 60 to 65 dB, increased levels of annoyance would be anticipated at increases of 3 dB, or greater. Increases of 1.5 dB, or greater, could result in increased levels of annoyance in areas where the ambient noise level exceeds 65 dB. The rationale for the FICON recommended criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause a significant increase in response to noise (FICON 1992).

California Building Code Sound Transmission Standards

Noise within habitable units that is attributable to external sources is regulated by the California Building Standards codified in CCR, Title 24, Part 2, Section 1207. These standards are enforceable at the time of construction or during occupancy and apply to habitable units with common interior walls, partitions, and ceilings or those adjacent to public areas such as halls, corridors, stairways, and service areas. Under these standards the interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metrics used to measure these levels can be L_{dn}) or CNEL, consistent with the local general plan. Under California PRC Section 25402.1(g), all cities and counties in the state are required to enforce the adopted California Building Code, including these standards for noise in interior environments.

City of Sausalito General Plan

The Health and Safety Element of the City of Sausalito General Plan sets forth policies to assess and control environmental noise. The Health and Safety Element includes a noise and land use compatibility table to identify appropriate land uses at various levels of noise exposure. Ambient noise levels of up to approximately 55 dBA L_{dn} or CNEL are considered normally acceptable for residential areas and ambient noise levels between approximately 60 and 70 dBA L_{dn} or CNEL are considered conditionally acceptable (City of Sausalito 2021: Table 7-4). The City has also established interior noise guidelines for various land uses. For residential uses the maximum interior noise level is 45 dBA L_{dn} or CNEL. New development is required to incorporate design elements and sound insulation features to meet acceptable interior noise levels.

City of Sausalito Municipal Code

Chapter 12.16, Noise Control, of the Sausalito Municipal Code regulates noise within the city. The following sections of Chapter 12.16 are applicable to the project.

Section 12.16.040 Ambient Base Noise Level

Section 12.16.040 establishes daytime and nighttime ambient base noise levels for different zones. For R3 zones, between 10:00 p.m. and 7:00 a.m., the ambient base noise level is 50 dBA CNEL and between 7:00 a.m. to 10:00 p.m., the ambient base noise level is 55 dBA CNEL. However, as detailed above, the project site is located within the Bridgeway 60 dBA CNEL noise contour; thus, 60 dBA CNEL is used as the ambient base noise level in this analysis.

Section 12.16.050 Noise Regulations Generally

Section 12.16.050 of the Municipal Code establishes standards that should be considered when determining whether a violation of the provisions of Chapter 12.16 exists. These standards include:

- time of the day or night the noise occurs
- duration of the noise
- level of the noise
- intensity of the noise
- whether the nature of the noise is usual or unusual
- whether the origin of the noise is natural or unnatural
- level and intensity of the background noise if any
- proximity of the noise to residential sleeping facilities
- nature and zoning of the area within which the noise emanates
- density of the inhabitation of the area within which the noise emanates
- whether the noise is recurrent, intermittent, or constant
- whether the noise is produced by a commercial or noncommercial activity

Section 12.16.130 Machinery, Equipment, Fans, and Air Conditioning

Section 12.16.130 of the Municipal Code prohibits the operation of any machinery, equipment, air conditioning apparatus, or similar mechanical device that would cause the noise level at the property line of any property to exceed the ambient base noise level by more than 5 dB.

Section 12.16.140 Time Restrictions on Operating Construction Devices in Residential Zones

Section 12.16.140 establishes time restrictions on construction equipment. Specifically, the operation of construction, demolition, excavation, alteration, or repair devices and equipment shall only take place Monday through Friday between 8:00 a.m. and 6:00 p.m. and Saturdays between 9:00 a.m. and 5:00 p.m. Construction on Sundays and holidays recognized by the City of Sausalito is prohibited.

3.14.2 Discussion

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?

Less-than-significant impact. This discussion includes an analysis of short-term construction noise and long-term operational noise. Because noise standards are often regulated differently, depending on the source (e.g., stationary source, transportation source), it follows that each source would be evaluated using the appropriate adopted noise source and associated methodology to analysis. Thus, significance is concluded for this resource topic based on the type of noise impact (temporary or permanent) that could occur from project implementation.

Construction Noise (Temporary)

To assess potential short-term (construction-related) noise impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise levels were determined based on methodologies, reference emission levels, and usage factors from the FTA *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics. The City of Sausalito has not adopted noise limits for construction activities, thus the FTA residential daytime construction noise threshold of 90 dBA L_{eq} would be applicable in this analysis.

Construction is typically a temporary activity and noise from construction ceases once construction is complete. Construction noise levels vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the noise source and receiver. Construction of the project would include the demolition of the existing residential structures, relocation of a sewer line, and construction of two separate four-level buildings. In accordance with Section 12.16.140 of the Sausalito Municipal Code, construction activity would only take place Monday through Friday between 8:00 a.m. and 6:00 p.m. and Saturdays between 9:00 a.m. and 5:00 p.m.

Construction noise levels are influenced by many variables including the specific equipment types, size of equipment used, percentage of time each piece is in operation, and number of pieces that would operate on the project site. Construction activities associated with the project would not require blasting or pile driving. Typical heavy equipment that could be used during project construction, such as a dozer, can generate maximum noise levels of 85 dBA L_{max} at 50 feet (FTA 2018: 176). Specific timing of each construction phase and activity is not currently available, and therefore this analysis conservatively assumed that three of the noisiest pieces of equipment (i.e., one grader, one dozer, and one excavator) could operate simultaneously near each other during the site preparation/grading phase.

This analysis is based on the concept that construction equipment moves about a construction site, with some pieces operating closer to the property edge—and subsequently nearer to sensitive receivers—while others are operating on another portion of the site, further from the same receiver. Propagating noise levels from the center of the construction site is appropriate in the field of acoustics, especially when evaluating construction noise, to account for the random pattern of noise-generating equipment moving about the site that generates different noise levels throughout the day. Thus, to better estimate noise exposure from the construction site at offsite receivers, construction noise levels at receivers are calculated based on the distance from the center of construction activities (i.e., the acoustical center). Noise levels estimated from the center of the activities would account for the random movement of equipment and that the movement would generate different noise levels throughout the day. Noise levels were estimated to be as high as 84.2 dBA L_{eq} and 88.2 dBA L_{max} at the nearest sensitive receptors, approximately 60 feet from the center of construction activity. See Appendix F for modeling details. Thus, estimated worst-case construction noise levels would be below FTA-recommended levels of 90 dBA L_{eq} at nearby residential receptors.

Construction activities would temporarily increase the ambient noise environment at nearby receptors, especially during demolition, site preparation/grading, and trenching. After these phases are completed, subsequent construction phases would require less heavy-duty equipment and would tend to generate lower noise levels than during the demolition, preparation, grading, and trenching phases. Subsequent building construction would not involve the use of heavy earthmoving equipment. Sporadic noise from the use of compressors, pumps, and hand tools may be heard, but it is anticipated that it would not result in substantial noise level increase to nearby homes during the building construction phase. Furthermore, in accordance with Section 12.16.140 of the Municipal Code, construction activity would occur during the daytime when people are less likely to be disturbed or awakened. Because the substantial noise increases related to construction would be short-term and temporary and because project construction would comply with the hours specified in the Sausalito Municipal Code, noise impacts during construction would be less than significant, and no mitigation is required.

Operational Noise (Permanent)

The project would result in long-term operational stationary source noise associated with residential land uses (e.g., heating ventilation and cooling [HVAC] systems) and mobile source noise associated with project-generated vehicle trips, as discussed separately below.

Stationary Noise

The project would include the implementation of mechanical equipment (i.e., HVAC units) which is a characteristic noise source of residential areas. Detailed information regarding the stationary equipment models to be installed is not currently available. Noise levels from HVAC equipment vary depending on the unit efficiency, size, and location, but generally range from 60 to 70 dBA L_{eq} at 3 feet (Carrier 2022). As shown in Figure 5 in Chapter 2, "Project Description," mechanical equipment would be located on the roofs of each building, setback from the building edge, and include a physical barrier that would break the line-of-sight between the source and the receptor. Location of the source in proximity to a receptor is a primary consideration as noise attenuates at a rate of 6 dB per doubling of distance from the source; thus, locating a noise source further away from a receptor substantially reduces noise levels. In addition, physical barriers (e.g., roof parapets, equipment enclosure) that break the line-of-sight between the source and the receptor can achieve at least a 5 dB noise reduction (FTA 2018: 16). Additionally, in accordance with Section 12.16.130 of the Sausalito Municipal Code, the operation of any mechanical equipment that would increase the ambient base noise level at the property line by more than 5 dB would be prohibited. For these reasons, noise from mechanical equipment would not result in a substantial noise increase over existing conditions.

Traffic Noise

Vehicle trips associated with the project would include trips generated by new residents and potential visitors. These trips would increase average daily trips and thus increase traffic noise levels along affected roadways. According to the circulation study prepared by Parametrix, the project would generate 128 daily trips (Parametrix 2024). The project site is located within the Bridgeway 60 dBA CNEL noise contour (City of Sausalito 2021: Table 7-3). Thus, in accordance with FICON noise criteria, a traffic noise increase of 3 dB or greater would be considered substantial. Generally, a doubling of a noise source (e.g., twice as much traffic) is required to result in an increase of 3 dB (Caltrans 2013). According to the City of Sausalito General Plan environmental impact report, Bridgeway experiences ADT volumes of 26,500 (City of Sausalito 2020: 8). Therefore, project-generated trips would be negligible in comparison with the existing traffic on study area roads and would not result in a substantial increase (i.e., +3 dB) in traffic noise.

Summary

As detailed above, noise levels from construction activities would be as high as 84.2 dBA L_{eq} and 88.2 dBA L_{max} at the nearest sensitive receptors, and thus, would not exceed the FTA residential daytime construction noise standard of 90 dBA L_{eq}. Additionally, all construction activity would comply with Section 12.16.140 of the Municipal Code, which would ensure that construction activity would occur during the daytime when people are less likely to be disturbed or awakened. Therefore, construction noise would not result in a substantial increase in noise during sensitive times of day that would permanently adversely affect sensitive receptors. Regarding operational noise, HVAC operations would not result in an increase in noise at off-site receptors due to distance and barriers in the line-of-sight between the equipment and nearby receptors. Finally, the project would not result in a doubling of traffic along Bridgeway, and thus would not result in a substantial increase (i.e., +3 dBA) in traffic noise. For these reasons, this impact would be less than significant, and no mitigation is required.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant with mitigation incorporated. Vibration levels generated by construction activities would vary depending on distance from the source, soil conditions, construction methods, and the equipment used. Project construction would not involve the use of ground vibration-intensive activities such as pile driving or blasting. The pieces of construction equipment that would be used during project construction, such as dozers and graders, do not generate substantial levels of ground vibration that could result in structural damage, except at extremely close distances (i.e., within at least 10 feet of activity). Construction activity would take place during daytime hours (i.e., Monday through Friday between 8:00 a.m. and 6:00 p.m. and Saturdays between 9:00 a.m. and 5:00 p.m.) in accordance with the Sausalito Municipal Code. Thus, any vibration activity that would result from project construction would not occur during evening or nighttime hours, thereby reducing potential vibration impacts (i.e., annoyance) to nearby receptors during more sensitive hours of the day.

Vibration Annoyance

To address the human response (i.e., human annoyance) to ground vibration, the FTA has established guidelines for maximum-acceptable vibration impact criteria for different types of land uses. As shown in Table 3.13-1, the FTA recommends a maximum acceptable level of 80 VdB with respect to human response for residential uses for infrequent events (FTA 2018: 126). The most vibration-intensive piece of equipment that could be used during project construction is a vibratory roller. Based on FTA's recommended procedure for applying propagation adjustments, vibration levels from the use of a vibratory roller could exceed the FTA threshold of 80 VdB within 73 feet of a residence. The nearest residences are located along Bridgeway approximately 10 feet east and west of the project site. Therefore, the FTA threshold for human response would be exceeded at these residences.

The FTA guidance for maximum acceptable VdB levels is primarily concerned with sleep disturbance in residential areas, which can be avoided by keeping exposures at or below 80 VdB during typical sleeping hours. As described above, construction vibration activity would occur during typical daytime hours (i.e., between 8:00 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday), when people are generally awake and would be less sensitive to vibration impacts. Thus, vibration activity would not occur during nighttime hours, thereby reducing potential vibration impacts to nearby sensitive receptors. Impacts would be less than significant; no mitigation is required.

Structural Damage

The FTA threshold for structural damage to non-engineered timber and masonry buildings is 0.20 in/sec PPV (Table 3.13-2). Based on the FTA recommended procedure for applying a propagation adjustment to the reference levels, vibration from the use of a vibratory roller would exceed the threshold of significance of 0.20 in/sec for structural damage within 26 feet of construction vibratory roller equipment. As detailed above, the nearest structures are residences located approximately 10 feet from the project site. Therefore, construction vibration would result in the potential for structural damage. Impacts would be potentially significant.

Mitigation Measure NOI-1: Reduce Construction-Related Vibration

Prior to commencing construction activities, the project applicant shall retain an acoustic professional to prepare a vibration control plan that incorporates, at a minimum, the following best practices into the construction scope of work and specifications to reduce the impact of temporary construction-related vibration on nearby vibration-sensitive land uses:

- Avoid the use of vibratory rollers, jackhammers, or any other impulsive/vibratory equipment within 100 feet of residential uses or any occupied structure; or use alternative equipment/construction methods that generate less vibration.
- Select construction methods that do not involve impact and impulsive equipment, where possible.
- Operate earthmoving equipment on the construction site as far away from vibration sensitive uses as possible
- Phase demolition, earthmoving, and ground-impacting operations so as not to occur concurrently, and in no circumstance shall heavy-duty impact and impulsive equipment be used during nighttime hours, established by the City of Sausalito Municipal Code.
- In all cases, regardless of the construction methods and equipment used and construction scheduling and phasing, the vibration control plan shall be implemented by the construction contractor, and the plan, based on finalized construction work plans, shall be verified by the acoustic professional either through on-the-ground vibration monitoring during construction activities, or based on the construction work plan and specific equipment/methods to be used. At any time that FTA vibration standards are exceeded (e.g., 80 VdB or 0.2 PPV in/sec) at nearby structures, construction activity must be halted until alternative methods that would reduce vibration levels are implemented.

The vibration control plan shall be approved by the City and implemented by the construction contractor during project construction.

Significance after Mitigation

Implementation of Mitigation Measure NOI-1 would require alternative construction activities to reduce vibration impacts and a vibration control plan that would ensure excessive vibration would not occur at nearby receivers and structures. Therefore, impacts would be less than significant with mitigation incorporated.

Operational Vibration

Implementation of the project would not introduce any major sources of long-term or permanent ground vibration. Additionally, no major stationary sources of groundborne vibration (e.g., railroad lines) are located within the vicinity of the project site. For these reasons, the project would not result in long-term operational vibration impacts. Impacts would be less than significant; no mitigation is required.

Summary

Based on the discussion above, implementation of the project would not result in significant impacts related to vibration annoyance and operational vibration. However, based on the reference vibration levels and the vibration modeling conducted, construction activity that includes the use of a vibratory roller would exceed recommended vibration levels at several nearby structures. Vibration impacts to structures would be reduced to a less-than-significant level through implementation of Mitigation Measure NOI-1. Therefore, the impacts would be less than significant with mitigation incorporated.

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?

Less-than-significant impact. The project site is not located within 2 miles of a public airport or public use airport. The Marin County Airport[1] is located approximately 12 miles north of the project site, and the nearest major airports are San Francisco International Airport and Oakland International Airport, located approximately 17 miles from the project site. Therefore, the project site is not located within two miles of a public airport and would not expose residents to excessive noise levels due to aircraft operations. There is a helipad and seaplane facility located on Redwood Highway Frontage Road, approximately 1.6 miles northwest of the project site. Although aircraft overflights associated with this facility could occasionally be heard, the project site is not located in an area that would expose residents to excessive noise levels due to aircraft operations. This impact would be less than significant, and no mitigation is required.

[1] The Marin County Airport (Gnoss Field) serves as a reliever airport to the greater San Francisco Bay Area, shifting air traffic congestion away from larger airports with commercial airline flights. Airport users vary from daily flights for business people or flight training, to occasional trips for personal travel or special services of a government agency.

3.15 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1 Environmental Setting

The population of City of Sausalito in 2020 was 7,114 persons, an increase of approximately 0.8 percent or 53 people since 2010. This increase occurred in the first half of 2010 to 2015, with the population increasing from 2010 to 2015 by 4.3 percent to 7,368 persons, then declining to 7,114 in 2020. During the previous decade (2000 and 2010), the City's population declined by 3.7 percent, or 269 people, resulting in an annual change of -0.4 percent (City of Sausalito 2023). Table 3.14-1 summarizes the population statistics in the city between 2000 and 2020.

Table 3.14-1 City of Sausalito Population Statistics (2000 – 2020)

	2000	2010	2015	2020
Population	7,330	7,061	7,368	7,114
Percent (%) Change	-	-3.7%	4.3%	-3.4%
Annual Percent (%) Changer	-	-0.4%	0.9%	-0.7%

Source: City of Sausalito 2023.

The total population of the City of Sausalito was estimated to be 6,856 residents in January 2024. The same year it was also estimated that there were approximately 6,843 households and 4,443 total housing units in the city with approximately 1.71 persons per household on average (DOF 2024). The proposed 19-unit development on the project site is included in the City's 2023-2031 Housing Element (City of Sausalito 2023).

3.15.2 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less-than-significant impact. The project would replace the existing vacant residential buildings with two new buildings consisting of 19 residential units. It was estimated that the average household size in the city was approximately 1.71 persons per household in January 2024 (DOF 2024). When applying the average household size to the project, the project would house approximately 33 residents during operation. The population of Sausalito was estimated at 6,856 in January 2024 (DOF 2024). The addition of new residents from the operation of the project would therefore increase the population of the City of Sausalito to 6,889, which is less than the population in the city between 2000 and 2020 as shown in Table 3.14-1. In addition, the development of 19 units on the project site is

included in the City's 2023-2031 Housing Element. Therefore, development on the project site is planned and would not induce substantial unplanned population growth in the city. The project would not include extension of roads or other infrastructure that would indirectly induce population growth in the city. Therefore, the project would not induce substantial unplanned population growth or increased housing demand in the City of Sausalito. The impact would be less than significant, and no mitigation is required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. The site consists of four residential structures that have been vacant for several years and are in a deteriorated condition. The project site is designated as High Density Residential in the City of Sausalito General Plan Land Use Element. The High Density Residential designation has a maximum development density of 29 dewing units per acre, which would result in a maximum of 16 units on the approximately 0.58-acre project site. However, the project would include development of 19 units, three units more than the maximum units allowed under the existing General Plan land use designation. Therefore, the project would result in increased housing capacity in the city. The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impact would occur, and no mitigation is required.

3.16 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

3.16.1 Environmental Setting

SMFPD provides fire and emergency medical services to the project site. The SMFPD service area includes the City of Sausalito, Tamalpais Valley, Homestead Valley, Almonte, Alto Bowl, Strawberry, a portion of the Town of Tiburon, and the National Park areas of Fort Baker and Marin Headlands. Services provided include fire suppression, rescue, emergency medical services, fire prevention services, vegetation management, public education, emergency preparedness, and trauma support. The SMFPD Sausalito station is located at 333 Johnson Street, approximately 0.5 mile southeast of the project site. Law enforcement services to the project site are provided by the City of Sausalito Police Department (SPD), which is located approximately 0.5 mile southeast of the project site at 29 Caledonia Street.

The project site is located within the boundaries of the Sausalito Marin City School District and the Tamalpais Union High School District. The closest public school is the Bayside Martin Luther King Junior Academy Nevada Campus, approximately 0.6 mile northwest of the project site. Municipal recreational facilities in the project vicinity include Langendorf Park, Dunphy Park, Marinship Park, and Robin Sweeny Park, which are all located within 0.25 mile of the project site. The nearest public library is the Sausalito Public Library, located approximately 0.23 mile southeast of the project site.

3.16.2 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less-than-significant impact. The project site is currently developed and is served by SMFPD. The project would replace the existing vacant residential buildings with two new buildings consisting of 19 residential units. As discussed in Section 3.14, "Population and Housing," development of 19 residential units on the project site is included in the City' 2023-2031 Housing Element. The anticipated population growth from the Housing Element Programs, including the project, would not necessitate the construction of new or expanded fire protection facilities (City of Sausalito 2024). In addition, as discussed in Section 3.9.2, the project would be required to comply with the conditions of approval identified by SMFPD to prevent fire. Conditions of approval would include the use of construction materials consistent with CBC and California Residential Code, preparation of a vegetation management plan, provision of a hydrant within 100 feet of the new structures, provision of fire sprinkler systems, provision of fire detection system, provision of fire lanes according to CFC, and provision of defensible space in accordance with CFC and Local Ordinance Section 109.3.2. Compliance with these conditions would minimize the project demand for fire protection services from the project. The impact would be less than significant; no mitigation is required.

Police protection?

Less-than-significant impact. As discussed above, the project site is developed and is currently served by SPD. The proposed development is included in the City's 2023-2031 Housing Element. The potential increase in SPD staffing required to serve all future development anticipated in the Housing Element would be four new SPD staff potions and no new service stations would be required (City of Sausalito 2024). Development of the project would be consistent with what is anticipated in the City's 2023-2031 Housing Element. No new service station would be required to serve the project. The impact would be less than significant, and no mitigation is required.

Schools?

Less-than-significant impact. The project would replace the existing vacant residential buildings with two new buildings consisting of 19 residential units. The anticipated student population growth from the project would be minimal and would not necessitate the construction of new or expanded school facilities. In addition, the California State Legislature, under SB 50, has determined that payment of school impact fees provides full and complete mitigation for impacts to school facilities. The project would be required to pay the school impact fees adopted by each school district, and this requirement is considered to fully mitigate the impacts of the project on school facilities. The impact would be less than significant, and no mitigation is required.

Parks?

Less-than-significant impact. Impacts related to parks and recreation facilities are discussed in Section 3.16 below.

Other public facilities?

Less-than-significant impact. The library closest to the project site is Sausalito Public Library. Implementation of the project would result in the development of 19 units, which would house approximately 33 residents based on approximately 1.71 persons per household in January 2024 (DOF 2024). The estimated new residents would represent less than 0.1 percent of the existing population of 6,856 (DOF 2024). An additional of 33 new residents would not be expected to result in the need for new or expanded library facilities or services. The impact would be less than significant, and no mitigation is required.

3.17 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.17.1 Environmental Setting

The City of Sausalito has not adopted the Quimby Act ratio of 5 acres parkland per 1,000 residents. The City has a total of 34.95 acres of park and beach facilities (City of Sausalito 2024). Based on a population of 6,856 in January 2024, the City has an existing parkland ratio of 5.09 acres of parkland per 1,000 residents (DOF 2024). Within the City limits, the Golden Gate National Recreation Area (GGNRA) covers approximately 182 acres of open space, while the City owns approximately 17 acres of open space (not associated with GGNRA). Although most of GGNRA and all of Fort Baker are not located within the city, these national parks are adjacent to the city and provide approximately 7,653 additional acres of open space and open space amenities that supplement the City's parks (City of Sausalito 2024).

As discussed in Section 3.15.1, "Public Services," recreation facilities in the vicinity of the project site include Langendorf Park, Dunphy Park, Marinship Park, and Robin Sweeny Park. All these facilities are located within 0.25 mile of the project site.

3.17.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? and

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less-than-significant impact. The proposed project would replace the existing vacant residential buildings with 19 residential units. As discussed in Section 3.14, "Population and Housing," the project would house 33 residents based on the average household size of 1.71 persons per household (DOF 2024). The population of Sausalito was estimated at 6,856 in January 2024 (DOF 2024). The addition of new residents from the operation of the project would therefore increase the population of the City of Sausalito to 6,889. Based on the 34.95 acres of park and beach facilities in the city, implementation of the project would result in a parkland ratio of 5.07 acres of parkland per 1,000 residents. Although the City has not adopted the Quimby Act ratio, implementation of the project would meet the recommended 5 acres parkland per 1,000 residents. In addition, the City owns approximately 17 acres of open space and the GGNRA covers approximately 182 acres of open space within the city. When factoring in the open space areas in the city, there would be sufficient parks and recreational facilities to service the project. The project would not include or require construction or expansion of recreational facilities. Given the small population growth from the project, implementation of the project would not result in a significant acceleration in deterioration of parkland facilities. The impact related to recreation would be less than significant, and no mitigation is required.

3.18 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.18.1 Environmental Setting

The impact analysis presented in this section is based primarily on the *Circulation Study for Bridgeway Commons Project* (Circulation Study) prepared by Parametrix (2024). The Circulation Study, included as Appendix G, provides additional data and information related to the transportation analysis.

ROADWAY NETWORK

The following roadways provide access to the project site:

- **Highway 101** is an eight-lane north-south highway that connects Sausalito to the City and County of San Francisco to the south and the rest of the County of Marin to the north. Highway 101 provides regional access to the project site.
- **Bridgeway** is a major arterial bi-directional four-lane roadway that connects Downtown Sausalito to the northern City limit where it connects to Highway 101. A center raised and landscaped median divides the northbound and southbound lanes. There are sidewalks along both sides of the roadway, Class II bicycle facilities along the northern side of the roadway, and Class III bicycle facilities along the southern side of the roadway.
- **Easterby Stree**t is a bi-directional north-south roadway that intersects with Bridgeway to the north and transitions into Woodward Avenue to the south. There are sidewalks along the east and west sides of the roadway.
- **Filbert Avenue** is a bi-directional two-lane roadway that connects Easterby Street with Napa Street. Filbert Avenue is located southwest of the project site. There are no bicycle or pedestrian facilities along Filbert Avenue in the vicinity of the project site.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle network in the City of Sausalito is composed of bicycle paths, bicycle lanes, and bicycle routes. The California Department of Transportation (Caltrans) classifies bicycle facilities into the following types (Caltrans 2024):

- **Class I Shared-Use Paths**: Paths completely separated from motor vehicle traffic used by people walking and biking, making them comfortable for people of all ages and abilities. Typically located immediately adjacent and parallel to a roadway or in its own independent right-of-way.
- **Class II Bicycle Lanes:** A dedicated lane for bicycle travel adjacent to traffic. A painted white line separates the bicycle lane from motor vehicle traffic.
- **Class III Signed Bicycle Routes:** Streets with signs and/or pavement markings that indicate people biking share the travel lane with motor vehicles.
- **Class IV Bikeways:** A bikeway is for the exclusive use of bicycles and includes a separation between the separated bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible barriers, or on-street parking.

According to the most recently updated City Bicycle Master Plan, as of 2008, the City of Sausalito had 3.63 miles of existing bikeways comprised of 0.85 miles of Class I bicycle facilities, 2 miles of Class II bicycle facilities, and 0.78 miles of Class III bicycle facilities (City of Sausalito 2008: 23). Sidewalks, Class II, and Class III bicycle facilities are present along Bridgeway in the vicinity of the project site.

TRANSIT SYSTEM

The project site is served by both local and regional public transit operators. Local transit to and from the project site is provided by the Marin Transit District and regional transit service is provided by Golden Gate Highway and Transportation District. Marin Access Paratransit provides pre-scheduled door-to-door bus transportation in Marin County for people with disabilities (Marin Transit n.d.). The nearest bus stop is located at the intersection of Bridgeway and Easterby Street, approximately 550 feet west of the project site, and is served by Marin Transit Routes 17 and 61 and Golden Transit Route 130. Marin Transit Route 17 buses travel north to south between Sausalito and San Rafael and operate Monday through Friday between 5:30 a.m. and 9:30 p.m. and on Saturdays and Sundays between 6:30 a.m. and 8:15 p.m. (Marin Transit 2024). Route 61 buses travel west to east from Sausalito to Bolinas. Westbound buses operate Monday through Friday between 8:15 a.m. and 8:00 p.m., and Saturdays and Sundays between 8:00 a.m. and 6:30 p.m. Eastbound buses operate Monday through Friday between approximately 6:45 a.m. and 6:00 p.m. and Saturdays and Sundays between approximately 9:45 a.m. and 8:00 p.m. (Marin Transit n.d.). Golden Gate Transit Route 130 regional buses travel between San Rafael and San Francisco and operate Monday through Sunday between approximately 5:30 a.m. and midnight (Golden Gate Highway and Transportation District 2024). The Golden Gate Bridge Highway and Transportation District also provides ferry service that connects Sausalito to the Ferry Building San Francisco. The Sausalito Ferry Landing is located near the intersection of El Portal and Bridgeway, approximately 1 mile east of the project site. The Blue & Gold Fleet also operates at the ferry landing in Sausalito, providing ferry excursion services to and from Pier 41 in the City and County of San Francisco.

APPLICABLE PLANS AND REGULATIONS

State

California Code of Regulations Section 15064.3

On December 28, 2018, State CEQA Guidelines Section 15064.3 was introduced to address the determination of significance for transportation impacts. This amendment mandates that transportation analyses be based on vehicle miles traveled (VMT) rather than congestion metrics such as level of service. Following approval by the Office of Administrative Law, the updated State CEQA Guidelines took effect statewide on July 1, 2020, implementing the provisions outlined in California Code of Regulations (CCR) Section 15064.3.

In December of 2018, the California Governor's Office of Planning and Research (OPR) published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), which provides guidance for VMT analysis. The Technical Advisory provides guidance related to screening thresholds for projects to indicate when detailed analysis is needed or if a project can be presumed to result in a less-than-significant VMT impact.

California Fire Code

The 2022 California Fire Code, which is codified as Part 9 of Title 24 of the CCR, incorporates by adoption the 2021 International Fire Code and contains regulations related to construction, maintenance, access, and use of buildings. Topics addressed in the California Fire Code include design standards for fire apparatus access (e.g., turning radii, minimum widths), standards for emergency access during construction, provisions intended to protect and assist fire responders, and several other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises.

California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control

The *California Manual on Uniform Traffic Control Devices* (California MUTCD), Part 6: Temporary Traffic Control provides principles and guidance for the implementation of temporary traffic control to ensure the provision of reasonably safe and effective movement of all roadway users (e.g., motorists, bicyclists, pedestrians) through or around temporary traffic control zones while reasonably protecting road users, workers, responders to traffic incidents, and equipment. In addition, this document notes that temporary traffic control plans and devices shall be the responsibility of the public body or official having jurisdiction guiding road users (Caltrans 2024: 1029).

California Air Pollution Control Officers Association Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health Equity

The California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing GHG Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (Handbook) includes measures for reducing GHG emissions within the transportation sector. Measures quantified in the CAPCOA Handbook aim to reduce VMT and encourage mode shifts from single-occupancy vehicles to shared (e.g., transit) or active modes of transportation (e.g., bicycle) (CAPCOA 2021).

Local

City of Sausalito General Plan

The City of Sausalito General Plan serves as a blueprint for growth and development in the city. The Circulation and Parking Element provides a framework for decisions concerning the city's transportation system and establishes objectives, policies, and programs to improve public transit, pedestrian and bicycle facilities, and parking and transportation management programs (City of Sausalito 2021: CP-1). The following General Plan policies are applicable to the project:

- **Policy CP-3.2 Alternative Transportation.** Improve the efficiency of the existing transportation system and reduce the reliance on the private automobile by emphasizing alternative transportation modes.
- **Policy CP-5.1 Bicycle Master Plan.** Plan, design, implement, and maintain bicycle infrastructure in Sausalito according to the Bicycle Master Plan.
- **Policy CP-5.8 Pedestrian Safety.** Provide a safe walking environment along city streets and pathways.
- **Policy CP-5.9 Accessibility.** Ensure city sidewalks and pathways are accessible for people of all abilities.
- **Policy CP-6.1 Development Requirements.** Require developers of new and redevelopment projects to contribute to the cost of needed traffic and transit improvement.
- **Policy LU-7.3 Encroachments.** Manage encroachment on public street rights-of-way by private development.

City of Sausalito Bicycle Master Plan

The City of Sausalito *Bicycle Master Plan* provides an overview of existing bikeways, sets forth goals for future development of city bicycle facilities, and provides recommendations for bicycle facilities and programs (City of Sausalito 2008: 9). The following *Bicycle Master Plan* goals are applicable to the project:

GOAL 1.0: Plan and implement bicycle improvements in Sausalito.

GOAL 3.0: Build upon and enhance the existing bikeway system, programs, and resources in Sausalito.

City of Sausalito Encroachment Permit

The City of Sausalito requires an encroachment permit for any work performed in the public right-of-way. Documents required as part of the encroachment permit application include a traffic control plan in accordance with the California MUTCD and a pedestrian detour plan for construction activities in the sidewalk that cannot keep 4 feet open (City of Sausalito 2024). Additionally, the City of Sausalito has adopted the City of San Francisco's *Regulations for Working in the City Streets* that would be applicable during project construction (City of Sausalito 2024).

City of San Francisco Regulations for Working in San Francisco Streets

As described above, the City of Sausalito has adopted the City of San Francisco *Regulations for Working in San Francisco Streets* manual. The manual establishes rules and guidance so that construction work can be conducted safely and with the least possible interference with pedestrians, bicycle, transit, and vehicular traffic (City and County of San Francisco 2023: 2). Per the manual, all traffic control and warning and guidance devices must conform to the California MUTCD.

Southern Marin Fire Protection District

The Southern Marin Fire Protection District provides fire protection services to the City of Sausalito. The Southern Marin Fire Protection District Ordinance No. 2022/2023-01 adopts the 2022 California Fire Code with amendments supported by local findings (SMFPD 2023).

3.18.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-significant impact. Implementation of the project would not require the construction, re-design, or alteration of any public roadways other than the construction of a new driveway along Bridgeway that would allow access to the project site. Thus, the project would not adversely affect any existing or planned transit, bicycle, or pedestrian facilities. The project would result in residential growth, which could generate additional demand for transit facilities and services. According to the OPR Technical Advisory, when evaluating impacts on multimodal transportation networks, the addition of new transit users should not be treated as an adverse impact (OPR 2018). Even so, any additional ridership generated by the project would be minimal and could be accommodated by the existing transit service.

In addition, as shown in the project encroachment diagram (Figure 5), implementation of the project would include public sidewalk improvements along Filbert Avenue and street improvements along Bridgeway, thus enhancing the surrounding roadway network. The addition of pedestrian improvements within and around the project site would enhance the pedestrian environment in accordance with General Plan Policy CP-5.8, which aims to provide a safe walking environment along city streets. The project would also include the construction of 24 long-term, secure bicycle parking spaces inside one of the proposed buildings. By providing bicycle parking areas, the project is consistent with General Plan Policy CP-3.2 which aims to reduce reliance on private vehicles by emphasizing alternative transportation modes and *Bicycle Master Plan* Goal 1.0 which encourages the implementation of bicycle improvements in the city. For these reasons, the project would not conflict with a program, plan, ordinance, or policy addressing transit, bicycle, and pedestrian facilities. The impact would be less than significant, and no mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less-than-significant impact. The City of Sausalito has yet to adopt guidance and/or thresholds for the analysis of VMT impacts. Therefore, OPR Technical Advisory guidance was used in the VMT analysis herein. The City of Sausalito uses the Transportation Authority of Marin Demand Model (TAMDM) as its VMT model to determine VMT generated by proposed land use projects (City of Sausalito 2021: CP-12). Consistent with the OPR Technical Advisory's

recommended threshold for residential projects, the project would result in a significant impact if project-generated VMT per resident exceeds 15 percent below existing County average home-based VMT per resident. The TAMDM identifies Marin County's average home-based VMT per resident as 15.8 for the year 2015 (Parametrix 2024). Therefore, the threshold of significance would be 13.4 VMT per resident (i.e., 15 percent below existing County average VMT per resident).

In the TAMDM, the project site is in the transportation analysis zone (TAZ) 800.047. According to the TAMDM, the average home-based VMT per resident is 15.0 in 2015 and 16.8 VMT per resident in 2040 in TAZ 800.047 (Parametrix 2024). As detailed in the Circulation Study, the project proposes a residential density of 27 dwelling units per acre as compared to an existing average residential density of eight dwelling units per acre in TAZ 800.047 (Parametrix 2024: 4). According to the CAPCOA Handbook Measure T-1, "Increase Residential Density," could reduce project VMT by up to 30 percent (CAPCOA 2021: 70).

Therefore, to account for reduced VMT from the project's higher density, the Circulation Study calculated and applied a 30 percent VMT reduction to the average TAZ home-based VMT, consistent with Measure T-1 in the CAPCOA Handbook. Table 3.17-1 presents the County average home-based VMT per resident, the threshold of significance, and the average home-based VMT per resident for TAZ 800.047 after the VMT reduction was applied for the project's increased density (i.e., project-generated VMT).

Table 3.17-1 Project-Generated Home-Based VMT per Resident Forecast

Year	County Average Home-Based VMT per Resident	Threshold of Significance (15% below existing County average VMT per Resident)	Project-Generated Home-Based VMT per Resident
2015	15.8	13.4	10.5
2040	15.0	12.8	11.8

Source: Parametrix 2024.

As detailed in Table 3.17-1, the project is anticipated to generate 10.5 home-based VMT per resident in 2015 and 11.8 home-based VMT per resident in 2040. Therefore, the project would not exceed the VMT threshold of 13.4 (i.e., 15 percent below existing Countywide VMT per resident). Additionally, the project site is located within 0.5 mile of existing transit stops, and the project would include improved bicycle and pedestrian amenities. These factors could increase the use of alternative modes of transportation and promote the reduction of single-occupancy vehicle trips and thus could further reduce VMT. For these reasons, implementation of the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). The impact would be less than significant, and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-significant impact. The project's impacts related to transportation hazards during construction and operation are detailed below.

Construction

Project construction would occur over approximately 30 months and include demolition, site preparation, and building construction. Per City Municipal Code Section 8.08.110, an encroachment permit from the City of Sausalito would be required for any work that would occur within the public right-of-way. In accordance with the encroachment permit conditions, a traffic control plan that aligns with the MUTCD would be provided (City of Sausalito n.d.). Per Section 6B.01 of the California MUTCD, adequate warning, delineation, and channelization should be provided to assist in guiding road users (e.g., motorists, bicyclists, and pedestrians) in advance of and through traffic control zones (Caltrans 2024: 1032). Additionally, the project would be required to meet the provisions set forth in the adopted City of San Francisco's *Regulations for Working in City Streets*, which establishes regulations to ensure the safety and least possible interference for pedestrian, bicycle, transit, and vehicular traffic. Furthermore, the project would be subject to review and approval by City staff ensuring safety impacts related to transportation would be minimized. For these reasons, the project is not anticipated to substantially increase transportation hazards during construction activities.

Operation

The project would include the construction of a new 24-foot wide, two-way driveway along Bridgeway that would provide vehicular access to the project site and the proposed parking area (i.e., Car Garden). Entry and exit from the Car Garden would be controlled by an automatic access gate set back approximately 55 feet from the curb along Bridgeway. All new roadway and access improvements would be subject to and designed in accordance with City roadway design standards to allow for the safe movement of all modes of transportation. Additionally, the project site plans would be subject to review by the City to ensure that all applicable standards and regulations are met to minimize transportation hazards during project operations. Further, the types of vehicles accessing the project site during operation (e.g., personal vehicles, bicycles) would be consistent with vehicles in the surrounding neighborhood under existing conditions, as the project is surrounded by residential and commercial land uses. For these reasons, the project would not substantially increase hazards due to a design feature or incompatible uses.

Summary

The project would be subject to and adhere to all City design standards and safety regulations that are intended to reduce transportation hazards. The project applicant would be required to prepare a traffic control plan to minimize potential safety impacts during construction in the public right-of-way. Additionally, the project site plans would be subject to review by City staff to ensure that applicable design standards and specifications are met to minimize transportation hazards during operations. For these reasons, the project would not substantially increase hazards due to a design feature or incompatible use. The impact would be less than significant, and no mitigation is required.

d) Result in inadequate emergency access?

Less-than-significant impact. SMFPD would provide fire protection and emergency response services to the project site. The project would be required to comply with the 2022 CFC, as adopted by reference in the SMFPD Ordinance No. 2022/2023-01. Section 3303.1 of the CFC requires that an owner or authorized agent develop, implement, and maintain an approved written site safety plan at the project site during all phases of construction, repair, alteration, or demolition work. Section 3303.1.1 details the required elements that all site safety plans must have, such as fire department vehicle access routes. Additionally, SMFPD conducted a review of the project application (Application 2018-00413) and associated documents in March 2020. SMFPD has identified conditions of approval applicable to the project. SMFPD conditions of approval related to emergency access include maintaining fire access to the project site and surrounding properties at all times; ensuring serviceable on-site improvements, including water main extension, hydrants and access roads, prior to framing the structure; and ensuring that all security gates installed across a fire apparatus access road can open fully to provide an unobstructed passage width of no less than 16 feet or a minimum of two feet wider than the approved net clear opening of the required all weather roadway or driveway and a minimum net vertical clearance of 15 feet (SMFPD 2020). Compliance with SMFPD conditions of approval would ensure that adequate emergency access would be provided. Therefore, the project would be designed to meet applicable access and design standards, and the project would not result in inadequate emergency access. The impact would be less than significant.

3.19 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources. Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)? 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:				
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)?	☐	☐	☐	☒
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

3.19.1 Environmental Setting

Assembly Bill (AB) 52, signed by Governor Edmund G. Brown, Jr., in September 2014, established a new class of resources under CEQA: "Tribal cultural resources." AB 52, as provided in PRC Sections 21080.3.1, 21080.3.2, and 21082.3, requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the Project is complete, prior to the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration.

On July 18, 2024, the City of Sausalito notified the FIGR, Guidiville Rancheria of California, and Wuksachi Indian Tribe/Eshom Valley Band regarding the project in accordance with AB 52. A response letter from FIGR dated August 9, 2024 was sent to the City via email on August 15, 2024 requesting scoping consultation. The City met with the FIGR representative on September 9, 2024 to discuss the project. The FIGR requested the project applicant to provide pre-construction training, tribal monitoring, and details on the protocols to assess unexpected discovery of resources. No tribal cultural resources were identified as a result of Native American consultation.

On July 12, 2024, a letter from the Native American Heritage Commission indicated that the Sacred Lands File search was positive for the presence of Native American cultural resources in the project vicinity. As discussed in Section 3.5, "Cultural Resources," an archaeological field survey was completed on November 15, 2024, and no tribal cultural resources were identified within the project site during the survey.

3.19.2 Discussion

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)?

No impact. The project area contains no tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. There would be no impact, and no mitigation is required.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant with mitigation incorporated. The FIGR requested consultation pursuant to PRC Section 21074. The City met with the FIGR representative on September 9, 2024 to discuss the project. No tribal cultural resources were identified as a result of Native American consultation. However, FIGR requested the project applicant to provide pre-construction training. tribal monitoring, and details on the protocols to assess unexpected discovery of resources. These requests were incorporated into Mitigation Measures CR-1, CR-2, and CR-3 in Section 3.6, "Cultural Resources."

No tribal cultural resources were identified within the project site as a result of the records search, literature review, Native American outreach, or archaeological field survey. However, project construction would include ground disturbing activities (e.g., excavation and grading). In addition, the proposed utility connections would involve excavation activities and would occur within the project site and on existing public rights-of-way. Tribal cultural resources may be uncovered during ground disturbing activities within the project site and public rights-of-way. This impact is potentially significant. Implementation of Mitigation Measures CR-1 to CR-3 would reduce impacts to tribal cultural resources to a less-than-significant level by requiring pre-construction cultural resources training, tribal monitoring, and appropriate treatment of significant tribal cultural resources, as directed by the culturally and geographically affiliated tribe, in the case of a discovery. Therefore, the impact would be less than significant with mitigation incorporated.

3.20 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems. Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.20.1 Environmental Setting

WATER

MMWD supplies potable water to the entire City of Sausalito, including the project site. MMWD's service area encompasses approximately 147 square miles in eastern Marin County. MMWD's portable and raw water distribution system includes approximately 886 miles of water mains, 94 pump stations, and 121 treated water storage tanks with a total storage capacity of 74.96 million gallons (MG). MMWD teats water at its three treatment plants, the Bon Tempe Treatment Plant (BTTP) near Ross, the San Geronimo Treatment Plant (SGTP) in Woodacre, and the Ignacio treatment facility in Novato. Together, these facilities have a combined design capacity of 71 million gallons per day (mgd). Observed high flows have reached 45 mgd in July 2006; however, the average daily maximum flow is approximately 22.4 mgd over the last 10 years. In 2019, the total production of the three plants averaged 22.8 mgd. In addition to the potable water system, MMWD also owns and operates a recycled water system. MMWD does not pump groundwater, nor does it plan to use groundwater as a water supply source in the future (MMWD 2024).

The *Updated 2020 Urban Water Management Plan* (Updated 2020 UWMP) for MMWD analyzes past, current, and future water demands and the reliability of water supplies within the MMWD's service area. The Updated 2020 UWMP adjusted the projected water demands in accordance with the latest ABAG 2023-2031 Regional Housing

Needs Allocation (RHNA). The Updated 2020 UWMP concludes that MMWD would have sufficient supplies to meet projected demands in normal years, single dry years, and multiple dry years through 2045 (MMWD 2024).

WASTEWATER

Wastewater collection in Sausalito is provided by the City of Sausalito Department of Public Works. Waste water treatment and conveyance services are provided by Sausalito-Marin City Sanitary District (SMCSD). SMSCD operates and maintains a wastewater treatment plant designed to fully treat wastewater under: Primary, Secondary and Tertiary treatment levels up to 1.8 mgd during average dry weather flow. During wet weather flow, the plant is designed to hydraulically handle up to 12 mgd and is capable of treating up to 9 mgd of full secondary treatment and up to 6 mgd of tertiary treatment. The conveyance system consists of 11 sewage pump stations, and approximately 11 miles of pipelines. SMCSD owns and operates 7 pump stations and operates and maintains, under a service agreement, 4 pump stations on behalf of the City of Sausalito (SMCSD 2024). The dry weather flow to the wastewater treatment plant is about 1.1 mgd (SFBRWQCB 2018). The weather flows have been recorded up to 6.6 mgd (City of Sausalito 2024).

ELECTRICITY AND NATURAL GAS

Electricity and natural gas services in the City of Sausalito are provided by Pacific Gas & Electric Company (PG&E). The PG&E electrical power grid consists of both overhead and underground electrical lines located predominantly in the public street rights-of-way and easements. Provision of electricity is through PG&E with the option of purchasing electricity through MCE, which is delivered by PG&E. MCE is a public, nonprofit electricity provider established in 2008 under state legislation permitting the formation of community choice aggregation agencies. MCE's service area includes all of Marin and Napa Counties, along with several cities in the Easy Bay region. MCE customers have the option of receiving 50 to 100 percent of renewable electricity from solar, wind, bioenergy, geothermal, and hydroelectric sources (City of Sausalito 2024).

TELECOMMUNICATIONS

Sausalito residents and businesses have a growing range of telecommunications services and options to choose from today. Landline service is provided by AT&T, ECG, and Pioneer Telephone. Wireless phone service is the most commonly used phone service in Sausalito, largely because of its portability and convenience. Another option is DSL service, which runs via copper lines and makes use of a modem in the home to allow customers to connect to both the internet and a telephone line at the same time. More than 90 percent of Sausalito residents make use of multiple wired providers for telephone, internet, and cable services. Additionally, there are 17 internet providers in Sausalito with nine of them specializing in services for business. Wired broadband services are not uniformly available throughout the City, and it is estimated that approximately six percent of households in the community have limited choice of providers (City of Sausalito 2024).

SOLID WASTE

Bay Cities Refuse is the City of Sausalito's provider of garbage, recycling, and green waste collection services. Bay Cities Refuse transports waste to the Golden Bear Waste Recycling Center in Richmond. The facility has a maximum permitted throughput of 1,000 tons per day (7-day average) and a maximum permitted capacity of 1,400 tons per day, not to exceed 7,000 tons per week (CalRecycle 2024). From the Golden Bear Waste Recycling Center, materials are transferred to the West County Resource Recovery's Central Processing Facility in Richmond, which has a maximum permitted throughput of 1,200 tons per day and a maximum permitted capacity of 1,200 tons per day (CalRecycle 2024). Food waste/green waste is taken to the West Contra Costa County Sanitary Landfill Organic Materials Processing facility in Richmond, where it is processed and turned into compost onsite. The composting facility has a maximum permitted throughput of 1,134 tons per day (CalRecycle 2024).

Any remaining solid waste is then transferred to the Keller Canyon Landfill in Pittsburg, which is the closest landfill to the project site. The landfill has a permitted maximum tonnage of 3,500 tons per day and a maximum permitted capacity of 75,018,280 cubic yards. As of November 16, 2004, the Keller Canyon Landfill had a remaining capacity of 63,408,410 cubic yards. The estimated closure date for this facility is December 31, 2050 (CalRecycle 2024). Another landfill in the region that has capacity is the Potrero Hills Landfill in Suisun City. The Potrero Hills Landfill has a permitted maximum tonnage of 4,330 tons per day and a maximum permitted capacity of 83,100,000 cubic yards. As of January 1, 2006, the Potrero Hills Landfill had a remaining capacity of 13,872,000 cubic yards. The estimated closure date for this facility is February 14, 2048 (CalRecycle 2024).

The Marin Household Hazardous Waste Facility, at 565 Jacoby Street in San Rafael, accepts a wide variety of hazardous materials such as electronic products, batteries, light bulbs, cleaning products, auto care products, and pressurized containers. Hazardous waste may also be taken to the Novato Hazardous Waste Facility at 500 Davidson Street in Novato. There is also a collection bin for batteries in the central hallway on the main floor of the Sausalito City Hall. The City hosts occasional e-waste collection events in the City Hall parking lot and at other locations as appropriate.

3.20.2 Discussion

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant with mitigation incorporated. As discussed in Impact b) below, the proposed 19-unit development is included in the 2023-2031 Housing Element to meet the 2023-2031 RHNA assigned to the City. MMWD's Updated 2020 UWMP adjusted the projected water demands in accordance with the latest ABAG 2023-2031 RHNA. The Updated 2020 UWMP concludes that MMWD would have sufficient supplies to meet projected demands in normal years, single dry years, and multiple dry years through 2045 (MMWD 2024). Therefore, there would be sufficient water supplies to serve the project, and no new or expanded water treatment facilities would be required. The project site is served by SMCSD wastewater treatment plant. As discussed in Impact c), the proposed 19 units would result in approximately 0.0038 mgd of dry weather flows, which is within the approximately 0.7 mdg available capacity of he SMCSD wastewater treatment plant. Therefore, wastewater generated by the project would be within the capacity of the SMCSD wastewater treatment plant and no new or expanded wastewater treatment facilities would be required. Therefore, implementation of the project would not require relocation or construction of new or expanded wastewater treatment facilities. The project would feature all-electric design and would not include natural gas infrastructure. The project site is currently served by telecommunications providers (e.g., AT&T, ECG, and Pioneer Telephone). The project would result in 19 residential units, which would result in a relatively small increase in population that would not substantially increase demand for telecommunications.

Electricity service to the project site would be through either construction of a new pole or connection to the existing pole to the south of the site. Construction of a new power pole, if required, would result in minimal ground disturbance and would be in alignment with the existing power line. Installation of the power pole, if required, would occur on existing developed public right-or-way adjacent to the project site and would not be expected to cause significant environmental effects. No other electric power facilities would be required to accommodate the project. The project would require relocation of a sewer line and construction of on-site drainage improvement. Existing sanitary sewer laterals on the project site are proposed to be abandoned and new sanitary sewer laterals would be required to connect to the City main per the requirements of the California Plumbing Code and City of Sausalito requirements. The project could alter drainage pattern on-site due to an increase in impervious surfaces. However, the project would include on-site stormwater treatment facilities, such as the installation of five bio-retention basins throughout the project site. As discussed in Section 3.10.2 Impact c.iii), an increase in impervious surfaces on-site could create runoff that has the potential to exceed the capacity of storm drain. The project would implement Mitigation Measure HYDRO-1, which requires conducting a hydrology-hydraulics study. The hydrology-hydraulics study should demonstrate that the project's on-site storm drain system is designed such that no increase in peak flow rate in stormwater runoff would

result from the project when compared with the pre-project condition. Implementation of Mitigation Measure HYDRO-1 would ensure that the project's impact on the storm drainage system would be less than significant. No new or expanded infrastructure beyond those proposed as part of the project and within the project site boundaries would be required. This impact would be less than significant with mitigation incorporated.

b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-significant impact. Construction activities would result in a temporary increase in water consumption for cleaning surfaces, mixing with concrete or other materials, suppressing dust, and establishing plants. No element of project construction would require substantial water usage. The total disturbance area that would require dust control would be approximately 0.58 acre. Project elements that require concrete mixing would include foundation, retaining walls, and pedestrian improvement areas. Construction water usage would be minimal and would cease once construction is complete. The relatively minor water supply needed for proposed construction activities would leave sufficient water supplies available for other reasonably foreseeable future development during normal, dry, and multiple dry years.

The Updated 2020 UWMP concludes that MMWD would have sufficient supplies to meet projected demands in normal years, single dry years, and multiple dry years through 2045 (MMWD 2024). The Updated 2020 UWMP adjusted the projected water demands in accordance with the latest ABAG 2023-2031 RHNA. Sausalito received an RHNA of 724 units for the 2023-2031 planning period. The proposed 19-unit development is included in the 2023-2031 Housing Element to meet the 2023-2031 RHNA assigned to the City. Therefore, water supplies to serve the project have been considered in the Updated 2020 UWMP. There would be sufficient water supplies available to serve the project during normal, dry and multiple dry years. The impact would be less than significant, and no mitigation is required.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less-than-significant impact. The project would include development of 19 residential units, which would increase wastewater generation at the project site compared to existing conditions. The project site is served by the SMCSD wastewater treatment plant, which is designed to fully treat wastewater under Primary, Secondary and Tertiary treatment levels up to 1.8 mgd during average dry weather flow. Based on a current dry weather flow of approximately 1.1 mgd (SFBRWQCB 2018), there is approximately 0.7 mgd capacity available of dry weather flow in the SMCSD wastewater treatment plant. SMCSD estimates a generation of 200 gallons per day per equivalent dwelling unit (SMCSD 2016). The proposed 19 units would result in approximately 3,800 gallons per day or 0.0038 mgd of dry weather flows and would be within the total available capacity of the wastewater treatment plant. The wastewater treatment plant would have the capacity to serve the project. The impact would be less than significant, and no mitigation is required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? and

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-significant impact. During construction, the project would generate trash and demolition debris. In accordance with Section 5.408 of the CALGreen Code, the project would implement a Construction Waste Management Plan that would require recycling and/or salvaging a minimum of 65 percent of nonhazardous construction and demolition debris. Project-generated construction and demolition debris would be hauled to the Keller Canyon Landfill, which had a remaining capacity of 63,408,410 cubic yards. It is expected that solid waste generated during construction would represent a negligible percentage of the landfill's remaining capacity. Therefore, the Kelley Canyon Landfill has adequate capacity to accommodate the solid waste generated during project construction.

Once operational, the project would consist of 19 residential units on the project site. As discussed above, the City of Sausalito is served by Bay Cities Refuse, which transports the city's solid waste to the Golden Bear Waste Recycling Center located in Richmond. The facility had a permitted capacity to accept 1,400 tons of material daily. The City's additional solid waste generated from the additional development to accommodate the Housing Element Programs growth would not exceed the existing daily capacity of the Golden Bear Waste Recycling Center (City of Sausalito 2024). Because the proposed 19-unit development is included in the City's 2023-2031 Housing Element, there would be sufficient capacity in the Golden Bear Waste Recycling Center to accommodate the project. The recyclable materials generated from the project would be transferred to the West County Resource Recovery facility in Richmond. The food waste/green waste would be taken to the West Contra Costa County Sanitary Landfill Organic Materials Processing facility in Richmond. Therefore, existing landfills have adequate capacity to accommodate the solid waste generated during project operations.

In accordance with the sustainability and waste management goals and policies of the City and Marin County, the City is actively working towards its goal of achieving zero net waste. Accordingly, it is anticipated that the City's per capita disposal rates would substantially decrease over time. Compliance with sustainability and waste management goals and policies of the City and Marin County would ensure that the proposed project would meet or exceed the requirements of applicable solid waste reduction goals and requirements, which include Assembly Bill (AB) 939 and SB 1322 (California's Integrated Waste Management Act), AB 341 (mandatory commercial recycling requirements), AB 1826 (mandatory commercial organics recycling), SB 1374 (construction and demolition waste materials diversion requirements), and CALGreen Sections 4.408 and 5.408 (construction waste reduction, disposal, and recycling requirements).

The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would comply with applicable state and local requirements pertaining to solid waste, construction waste diversion, and recycling. Therefore, this impact would be less than significant, and no mitigation is required.

3.21 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire. Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones? If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.21.1 Environmental Setting

The project site is located in a LRA outside of designated as moderate, high, or very high FHSZs in in the City of Sausalito. The project site is within one mile of an SRA designated as a very high FHSZ (CAL FIRE 2024). In addition, the project site is located within a WUI Zone.

As described in Section 3.15, "Public Services," the project site is served by SMFPD. Project operations would be subject to the procedures described in the Marin County Emergency Operations Program, which includes emergency response actions, including an evacuation plan, for all areas of the County in the event of a wildfire. According to the Health, Safety, and Community Resilience Element of the City of Sausalito General Plan, the established evacuation routes that would serve as primary evacuation corridors in the event of an emergency from the City of Sausalito include Bridgeway, Spencer Avenue, Alexander Avenue, Highway 101, Donahue Street, and Shoreline Highway. For people who have access to boats, evacuation could be potentially taken via Richardson's Bay. Other main thoroughfares in the City could also be used in the event of an evacuation.

3.21.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-significant impact. Impacts related to emergency response plan or emergency evacuation plan are discussed in Section 3.9.2 Impact f). As discussed in Section 3.9.2, the project would not result in any temporary or permanent closures or other modifications of local roadways. The project would not obstruct evacuation routes during construction or operation. The impact would be less than significant, and no mitigation is required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-significant impact. The project site is within one mile of an SRA designated as a very high FHSZ (CAL FIRE 2024). In addition, the project site is located within a WUI Zone. The project site is surrounded by development to the south, east, and west, and by Richardson's Bay to the north. The project site is located at the bottom of a developed hillside, but is 0.5 mile away from Highway 101, on the other side of which is vegetation that could burn quickly in a wildfire.

The project would replace the existing vacant residential buildings with two new budlings for a total of 19 residential units. The project would be designed in accordance with the current CBC and CFC, which include requirements for the provision of defensible space, flammable vegetation clearance, and the use of ignition-resistant building materials for properties near very high FHSZs in SRAs. The project design would also include adequate provisions for fire protection service, including adequate egress. The degree of wildland fire hazard, including the exposure of future occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope or prevailing winds, would not substantially change with adoption of the project compared to existing conditions. Therefore, the project would not exacerbate wildfire risk and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The impact would be less than significant, and no mitigation is required.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-significant impact. The project site is within one mile of an SRA designated as a very high FHSZ (CALFIRE 2024). The project site is located within a WUI Zone. The project site is located in a developed area with existing infrastructure (including highways and local roadways) and services are already in place or readily available. Implementation of the project would not alter existing roadway and other infrastructure patterns and does not propose new roadways or other major infrastructure improvements or extensions into an undeveloped area, which would pose an additional or increase to wildlife risks. Electricity service to the project site would be through either construction of a new pole or connection to the existing pole to the south of the site. If construction of a new pole is required to accommodate the project energy demand, this would be completed by PG&E and would require additional discretionary review. As such, the project does not propose or require the installation and maintenance of new infrastructure that would substantially exacerbate fire risk. The impact would be less than significant, and no mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-than-significant impact. The project site is within one mile of an SRA designated as a very high FHSZ (CA LFIRE 2024). The project site is located within a WUI Zone. Implementation of the project would place more people in the WUI zone. The project would be required to comply with fire protection measures in the SMPFD Fire Ordinance and comply with SMPFD conditions of approval as discussed in Section 3.9.2 Impact g). Furthermore, as described in Section 3.7, "Geology and Soils," and Section 3.10, "Hydrology and Water Quality," implementation of the project would not result in significant impacts related to landslides and flooding. The impacts related to exposure of people and structures to post wildfire hazards would be less than significant, no mitigation is required.

3.22 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.22.1 Environmental Setting

Refer to the "Environmental Setting" discussion in Sections 3.1 through 3.20 of this IS/MND for a summary of the existing environmental conditions in the project site and vicinity.

3.22.2 Discussion

The project, with proposed mitigation measures, would not cause substantial adverse effects on human beings, 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. Although the Project has the potential to affect unknown, buried historical resources and archaeological resources under Section 15064.5 of the CEQA Guidelines and Tribal Cultural Resources as defined by the CEQA Statute Section 21074, mitigation measures have been provided to reduce these potential impacts to a less-than-significant level.

For the reasons discussed above in this document, and incorporated in this discussion section, the proposed Project, as mitigated, would not generate any significant direct, indirect, or cumulatively considerable impacts on human beings or the environment.

a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than significant with mitigation incorporated. As discussed in Section 3.4, "Biological Resources," the project site project site supports previously developed urban habitat cover, containing existing residential structures, trees, and ornamental vegetation. Two special-status bat species have the potential to occur in the project site: pallid bat and Townsend's big-eared bat. Demolition of buildings, removal of roosting trees, and other construction activities would have the potential to affect the survival of adult or young bats resulting in a potentially significant impact. Mitigation Measure BIO-1 would require that surveys be conducted for roosting bats in the existing structures and trees within 30 days prior to tree removal and demolition and require implementation of avoidance measures. With implementation of the special-status bat survey and avoidance measures required by Mitigation Measure BIO-1, the impact to special-status bat species would be reduced to a less-than-significant level. There are no streams or associated riparian habitat on the project site. Runoff from the site would drain into Richardson's Bay, which hosts a variety of sensitive natural communities. If runoff containing hazardous materials or silt enters Richardson's Bay, the impacts to sensitive marine communities would be potentially significant, Implementation of erosion control plan and Mitigation Measure HYDRO-1 would ensure that stormwater runoff from the project would not significantly impact Richardson's Bay. Mitigation Measures HYDRO-1 requires conducting a hydrology-hydraulics study for the proposed storm drain system to ensure that no increase in peak flow rate in stormwater runoff would result from the project.

As described in Section 3.5, "Cultural Resources," the project would have no impact to historical resources and a less-than-significant impact related to human remains. However, the project would include ground disturbing activities that could result in the inadvertent discovery of archaeological resources. Implementation of Mitigation Measure CR-1 would reduce potential impacts to less than significant by requiring the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant archaeological resources.

As such, effects to biological and cultural resources and potential for project-related activities to degrade the quality of the environment would be less than significant with incorporation of Mitigation Measures BIO-1, HYCRO-1, and CR-1.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than significant with mitigation incorporated. As described throughout this IS/MND, the project would result in potentially significant impacts related to air quality, biological resources, cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, and tribal cultural resources. However, mitigation measures have been identified that would reduce these impacts to less-than-significant levels. Furthermore, the analyses presented in Section 3.3, "Air Quality," Section 3.8, "Greenhouse Gas Emissions," and Section 3.17, "Transportation," considers potential cumulative impacts associated with development of the project. The analyses determined that cumulative air and GHG emails impacts would be less than significant with mitigation and cumulative traffic impact would be less than significant. Therefore, implementation of identified mitigation measures throughout Section 3.1 through Section 3.20 would ensure that environmental effects associated with the project would not combine with effects from reasonably foreseeable future development in the project vicinity to cause cumulatively considerable significant impacts. For these reasons, cumulative impacts would be less than significant with mitigation incorporated. No further mitigation is required.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less than significant with mitigation incorporated. As described throughout this IS/MND, the project would result in potentially significant impacts related to air quality, hazards and hazardous materials, and noise. With implementation of Mitigation Measure AQ-1, impacts related to construction emissions would be less than significant. Implementation of Mitigation Measures HAZ-1 and HAZ-2 would reduce impacts related to exposure to hazardous materials to a less-than-significant level. Mitigation Measure NOI-1 would reduce construction-related vibration impacts to sensitive receptors to a less-than-significant level. The project would not exceed significance thresholds or result in significant impacts for the other environmental categories typically associated with indirect or direct effects to human beings. As such, direct or indirect adverse impacts on human beings would be less than significant with mitigation incorporated. No further mitigation is required.

4 REFERENCES

1 Introduction

No references are cited in this section.

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3.4 Air Quality

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3.22 Mandatory Findings of Significance

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Appendix A

Project Plans

BRIDGEWAY COMMONS

1755 BRIDGEWAY,SAUSALITO

PLANNING APPLICATION RESUBMITTAL
MAY 4, 2022

BDE ARCHITECTURE

DWELLING UNIT & BUILDING STATISTICS

CONSTRUCTION TYPE: TYPE V OVER TYPE I — **BUILDING 1 - BRIDGEWAY**
FLOORS: 2 WOOD OVER 1 CONCRETE

UNIT TYPE	NAME	DESCRIB	Unit Net Rentable	1ST	2ND	3RD	4TH	5TH	Unit Total		Rentable Area by Type
2 BEDROOM	B1.0	2 BDRM/ 2 BATH	1,179		1				1	8%	1,179
	B1.1	2 BDRM/ 2 BATH	1,179			1			1	8%	1,179
	B2.0	2 BDRM/ 2 BATH	1,042		1				1	8%	1,042
	B2.1	2 BDRM/ 2 BATH	1,042			1			1	8%	1,042
	B3.0	2 BDRM/ 2 BATH	1,142		1				1	8%	1,142
	B3.1	2 BDRM/ 2 BATH	1,142			1			1	8%	1,142
	B4.0	2 BDRM/ 2 BATH	1,061		1				1	8%	1,061
	B4.1	2 BDRM/ 2 BATH	1,061			1			1	8%	1,061
	B5.0	2 BDRM/ 2 BATH	1,080		1				1	8%	1,080
	B5.1	2 BDRM/ 2 BATH	1,080			1			1	8%	1,080
2 BDRM SUB-TOTAL					5	5	0	0	**10**	**77%**	11,008
3 BEDROOM	C1.0	3 BDRM/ 2 BATH	1,513						0	0%	0
	C2.0	3 BDRM/ 2 BATH	1,419				1		1	8%	1,419
	C3.0	3 BDRM/ 2 BATH	1,863				1		1	8%	1,863
	C4.0	3 BDRM/ 2 BATH	2,221				1		1	8%	2,221
3 BDRM SUB-TOTAL					0	0	3	0	**3**	23%	5,503
TOTAL UNITS		**Avg SqFt**	**1,270**		5	5	3	0	**13**	**100%**	16,511

Net rentable residential area is measured center of demising wall, ext face of stud of ext wall, ext face of stud of corridor wall, excl decks

Net rentable Residential by floor (excl decks)			5,504	5,504	5,503	0	**16,511**
Gross area by floor (footprint minus net rentable, excl decks)	658	122	122	123	0		**367**

Common Space/Circulation				651	0	0	0				0
Utilities				1,244	40	40	40				120
Garage				6,809	0	0	0				0
Total Gross				9,362	5,666	5,666	5,666	0			**16,998**

CONSTRUCTION TYPE: TYPE V OVER TYPE I — **BUILDING 2 - FILBERT**
FLOORS: 3 WOOD OVER 2 CONCRETE

UNIT TYPE	NAME	DESCRIB	Unit Net Rentable	1ST	2ND	3RD	4TH	5TH	Unit Total		Rentable Area by Type
1 BEDROOM	A1.0	1 BDRM/ BATH	891			1			1	17%	891
	A1.1	1 BDRM/ BATH	883				1	1	2	33%	1,766
1 BDRM SUB-TOTAL					0	1	1	1	**3**	**50%**	2,657
2 BEDROOM	B6.0	2 BDRM/ 2 BATH	1,186			1			1	17%	1,186
2 BDRM SUB-TOTAL					0	1	0	0	**1**	**17%**	1,186
3 BEDROOM	C1.0	3 BDRM/ 2 BATH	1,513				1	1	2	33%	3,026
3 BDRM SUB-TOTAL					0	0	1	1	**2**	33%	3,026
TOTAL UNITS		**Avg SqFt**	**1,145**		0	2	2	2	**6**	**100%**	6,869

Net rentable residential area is measured center of demising wall, ext face of stud of ext wall, ext face of stud of corridor wall, excl decks

Rentable Residential by floor (excl decks)			0	2,077	2,396	2,396	**6,869**
Gross area by floor (footprint minus net rentable, excl decks)	0	422	248	232	232		**1,134**

Common Space/Circulation					224	410	107	107			848
Utilities					715						715
Garage					1,858						1,858
Total Gross				0	3,219	2,735	2,735	2,735			**11,424**

CONSTRUCTION TYPE: MIXED CONSTRUCTION TYPE — **ALL BUILDINGS**
FLOORS:

UNIT TYPE	NAME	DESCRIB	Unit Net Rentable	1ST	2ND	3RD	4TH	5TH	Unit Total		Rentable Area by Type
1 BEDROOM	A1.0	1 BDRM/ BATH	891		-	1	-	-	1	5%	891
	A1.1	1 BDRM/ BATH	883		-	-	1	1	2	11%	1,766
1 BDRM SUB-TOTAL					0	1	1	1	**3**	**16%**	2,657
2 BEDROOM	B1.0	2 BDRM/ 2 BATH	1,179		1	-	-	-	1	5%	1,179
	B1.1	2 BDRM/ 2 BATH	1,179		-	1	-	-	1	5%	1,179
	B2.0	2 BDRM/ 2 BATH	1,042		1	-	-	-	1	5%	1,042
	B2.1	2 BDRM/ 2 BATH	1,042		-	1	-	-	1	5%	1,042
	B3.0	2 BDRM/ 2 BATH	1,142		1	-	-	-	1	5%	1,142
	B3.1	2 BDRM/ 2 BATH	1,142		-	1	-	-	1	5%	1,142
	B4.0	2 BDRM/ 2 BATH	1,061		1	-	-	-	1	5%	1,061
	B4.1	2 BDRM/ 2 BATH	1,061		-	1	-	-	1	5%	1,061
	B5.0	2 BDRM/ 2 BATH	1,080		1	-	-	-	1	5%	1,080
	B5.1	2 BDRM/ 2 BATH	1,080		-	1	-	-	1	5%	1,080
	B6.0	2 BDRM/ 2 BATH	1,186		-	1	-	-	1	5%	1,186
2 BDRM SUB-TOTAL					5	6	0	0	**11**	**58%**	12,194
3 BEDROOM	C1.0	3 BDRM/ 2 BATH	1,513		-	-	1	1	2	11%	3,026
	C2.0	3 BDRM/ 2 BATH	1,419		-	-	1	-	1	5%	1,419
	C3.0	3 BDRM/ 2 BATH	1,863		-	-	1	-	1	5%	1,863
	C4.0	3 BDRM/ 2 BATH	2,221		-	-	1	-	1	5%	2,221
3 BDRM SUB-TOTAL					0	0	4	1	**5**	26%	8,529
TOTAL UNITS		**Avg SqFt**	**1,231**		5	7	5	2	**19**	**100%**	23,380

Net rentable residential area is measured center of demising wall, ext face of stud of ext wall, ext face of stud of corridor wall, excl decks

Rentable Residential by floor (excl decks)			5,504	7,581	7,899	2,396	**23,380**
Gross area by floor (footprint minus net rentable, excl decks)	658	544	370	355	232		**1,501**

Common Space/Circulation				651	224	410	107	107			848
Utilities				1,244	755	40	40	0			835
Garage				6,809	1,858	0	0	0			1,858
Total Gross				9,362	8,885	8,401	8,401	2,735			**28,422**

PROJECT DATA

PROJECT ZONING
R-3 RESIDENTIAL
MULTI-FAMILY HOUSING

PARKING SUMMARY
TOTAL OF 35 SPACES PROVIDED

AT LEVEL 1-GARAGE:
23 REGULAR PARKING SPACES AT 9'X19'
1 ADA SPACES AT 9'X19'

AT LEVEL 2 - ON GROUND:
2 REGULAR SPACE
1 ADA SPACE

AT LEVEL 2 - PERSONAL GARAGES:
7 SPACES IN TANDEM INDIVIDUAL GARAGES 10'X39'
1 ADA GARAGE AT 14'X20'

UNIT DENSITY CALCULATION (Per Sausalito Planning Code)
16 UNITS ON SITE OF 25,461 SF
1 DWELLING UNIT PER 1,500 SF ALLOWED
25,461/1,500 SF = 16 UNITS
UNIT DENSITY INCREASE PER STATE DENSITY BONUS: 19 UNITS

BICYCLE PARKING INSIDE BUILDING
REQUIRED: 8 MINIMUM (4 PER 20 CARS)
PROPOSED: 24 LONG TERM STORAGE BICYCLE PARKINS SPACES

MAIL BOXES
ALL USPS MAIL BOXES ARE TO BE ADA ACCESSIBLE

DATUM

1. HORIZONTAL DATUM IS BASED UPON RECORD DATA AND 2014 RS 114.

2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON 2" BRASS DISK LOCATED 400'± NORTHWESTERLY OF THE MOST NORTHERLY PROPERTY CORNER OF THE PROJECT SITE ALONG BRIDGEWAY, BEING BENCHMARK RM-16 SAUSALITO ELEV.=33.76.

3. CONTOUR INTERVAL IS 2'.

4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.

CUT & FILL CALCULATIONS

CUT = 5,200 CUBIC YARDS
FILL = 110 CUBIC YARDS

* SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION

APPLICABLE CODES

2019 CALIFORNIA BUILDING CODE & AMENDMENTS (CBC)
2019 CALIFORNIA MECHANICAL CODE & AMENDMENTS (CMC)
2019 CALIFORNIA PLUMBING CODE & AMENDMENTS (CPC)
2019 CALIFORNIA ELECTRICAL CODE & AMENDMENTS (CEC)
2019 CALIFORNIA ENERGY CODE
2019 CALIFORNIA FIRE CODE & AMENDMENTS (CFC)
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
2019 CALIFORNIA BUILDING CODE CHAPTER 11A
2019 CALIFORNIA BUILDING CODE CHAPTER 11B
2019 NFPA 13
2019 NFPA 14
2019 NFPA 72

ACCESSIBILITY

100% OF UNITS SHALL BE ADAPTABLE, PER CBC 2019 CH 11A.
ALL COMMON USE AREAS SHALL BE ACCESSIBLE PER CBC 2019 CH 11A.
ALL PUBLIC AREAS SHALL BE ACCESSIBLE PER CBC 2019 CH 11B.

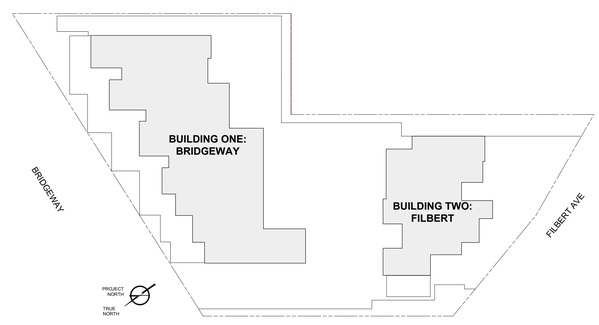
-CODES USED WILL BE CODES APPLICABLE AT THE TIME

PROJECT DATA

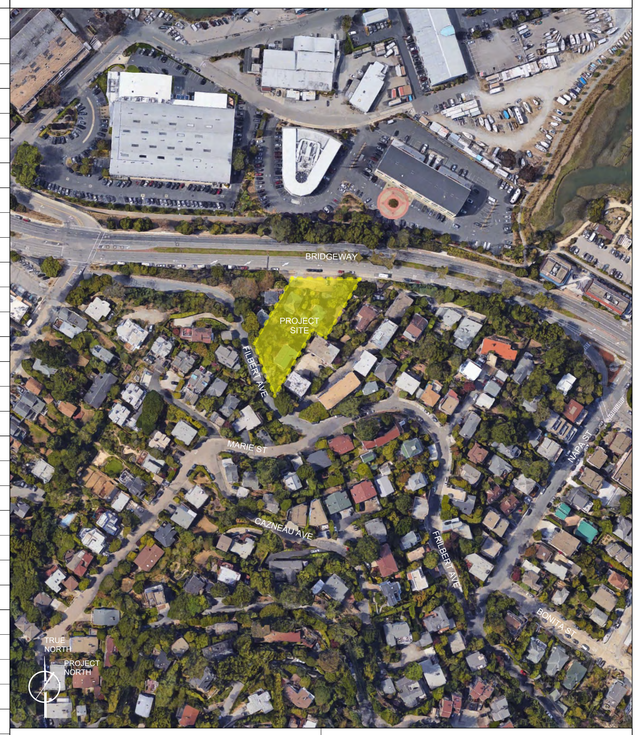
ITEM	ALLOWED	EXISTING	PROPOSED
APN: 064 - 151 - 02			
APN: 064 - 151 - 03			
PARCEL AREA	N/A	25,461 SF	25,461 SF
NUMBER OF DWELLING UNITS (SDB)**	19 UNITS	5 UNITS TO BE DEMO'D	19 UNITS, SDB
PARCEL AREA/DWELLING (SMC*)	SITE AREA/1,500 SF @ R-3	N/A	16 UNITS SF
YARD SETBACKS:	*(SEE A0.12 FOR CALCULATIONS)*		
F.Y. SETBACK	0'-0"	N/A	0'-0" & 15'-0"
R.Y. SETBACK	15'-0"	0'-0"	15'-0"
S.Y. SETBACK (EAST) @ BRIDGEWAY	5'-0" MIN SIDE YD. SETBK.	13'-0"	11'-0"
S.Y. SETBACK (EAST) @ FILBERT			7'-0"
S.Y. SETBACK (WEST) @ BRIDGEWAY	5'+(L - 40')/5' = S.Y. STBK	2'-0"	11'-0"
S.Y. SETBACK (WEST) @ FILBERT			8'-0"
BUILDING HEIGHT			
BRIDGEWAY - BUILDING 1	GREATER THAN 10" UP/DOWN HILL	N/A	38'-9"
FILBERT - BUILDING 2			34'-11"
**HEIGHT IDENTIFICATION DIAGRAMS CAN BE FOUND ON A0.15 & A3.00 SHEETS. DETAIL 2/A0.15 IDENTIFIES LOW AND HIGH NATURAL GRADE MARKERS*			
BUILDING COVERAGE:			
AREA COVERED	12,731 SF	4,803 SF	11,783 SF
PERCENT OF PARCEL	50.0% MAX	18.9%	46.0%
BUILDING COVERAGE - SINGLE UNIT LIMITATION:			
AREA COVERED	8,911 SF	N/A	1,131 SF
PERCENT OF PARCEL	35.0% MAX	N/A	12.7%
IMPERVIOUS SURFACE:			
AREA COVERED	19,096 SF	7,612 SF	19,090 SF
PERCENT OF PARCEL	75.0% MAX	29.9%	75.0%
IMPERVIOUS SURFACE - SINGLE UNIT LIMITATION:			
AREA COVERED	17,186 SF	N/A	1,833 SF
PERCENT OF PARCEL	67.5% MAX	N/A	10.7%
FLOOR AREA			
AREA COVERED	20,369 SF	8,405 SF	28,244 SF
PERCENT OF PARCEL	80.0% MAX	33.0%	110.9%
FLOOR AREA - SINGLE UNIT LIMITATION			
AREA COVERED	11,457 SF	N/A	2,878 SF
PERCENT OF PARCEL	45.0% MAX	N/A	11.3%
PARKING SPACES (per State Density Bonus)	1 PER BEDROOM, UP TO 2 PER UNIT	3	35 TOTAL
TYPE: GARAGE	N/A	N/A	23 STD, 1 ADA
DIMENSIONS	N/A	N/A	9'-0" X 19'-0"
TYPE: ON-GROUND	N/A	N/A	2 STD, 1 ADA
DIMENSIONS	N/A	N/A	9'-0" X 19'-0"
TYPE: PERSONAL GARAGE	N/A	N/A	7 STD, 1 ADA
DIMENSIONS	N/A	N/A	9'-0" X 19'-0"

* SMC: Sausalito Municipal Code
** SDB: State Density Bonus

PROJECT SITE KEY



VICINITY MAP



SHEET INDEX

PROJECT TEAM

OWNER:
SY JADINES
1821 AHSTON AVE
BURLINGAME, CA 94010
P:
CONTACT: FENG XUE, AMY CHAN

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950 HOWARD STREET
SAN FRANCISCO, CA 94103
P: 415.677.0966
CONTACT: JON ENNIS

LANDSCAPE ARCHITECT:
JETT LANDSCAPE ARCHITECTURE & DESIGN
2 Orinda Theatre Square #218,
Orinda, CA 94563
P: (925) 254-5422
CONTACT: BRUCE JETT

CIVIL ENGINEER:
ILS ASSOCIATES INC
70 Mitchell Blvd, # 105
San Rafael, CA 94903
P: (415) 883-9200
CONTACT: STEVE SCHMIDT

PROJECT DESCRIPTION

THE PROJECT IS LOCATED ON THE HILLSIDE BETWEEN BRIDGEWAY AND FILBERT ON A STEEP 25,461 SQFT LOT ACCESSED FROM BRIDGEWAY AND CONCISTS OF TWO SEPARATE FOUR-LEVEL BUILDINGS OF TYPE 5A OVER TYPE 1A CONSTRUCTION.

EACH BUILDING HAS THREE RESIDENTIAL LEVELS OVER A PARTIALLY UNDERGROUND LEVEL OF PARKING.THE BUILDING FACING BRIDGEWAY HOLDS 13 UNITS AND THE BUILDING FACING FILBERT HOLDS 6 UNITS FOR A TOTAL OF 19 UNITS.

THIS MULTI-FAMILY CONDOMINIUM PROJECT OFFERS FOR-SALE UNITS: 16 UNITS BY SMC AND 3 EXTRA UNITS THROUGH DENSITY BONUS LAW. THE UNIT MIX CONCISTS OF ONE, TWO AND THREE-BEDROOM UNITS WHERE 21% OF THE UNITS WILL BE BELOW MARKET UNITS OFFERED TO MODERATE INCOME FAMILIES.

THE CONDOMINIUMS ARE PARKED IN A MIX OF COMMON PARKING GARAGE, PRIVATE GARAGES AND AT GRADE PARKING. 35 PARKING SPACES ARE OFFERED. ONE-BEDROOM UNITS ARE PARKED AT ONE TO ONE, WHILE TWO AND THREE-BEDROOM UNITS ARE PARKED AT A TWO TO ONE RATIO.

THE PROJECT REQUESTS TWO EXEMPTIONS PER DENSITY BONUS LAW, FOR HEIGHT AND FOR FLOOR AREA RATIO.

THE PROJECT WOULD REPLACE FOUR DILAPIDATED STRUCTURES AND BOOST THE NUMBER OF MUCH NEEDED HOUSING UNITS ON THIS UNDER-UTILIZED LOT. THE PROJECT IS IN LINE WITH THE HIGH-DENSITY RESIDENTIAL CHARACTER OF THIS NEIGHBORHOOD AND WOULD PROVIDE CONTINUITY TO BRIDGEWAY'S CITYSCAPE.

THE PROJECT HAS BEEN DESIGNED TO KEEP VIEWS IN MIND FROM FILBERT AND THE RESIDENCES ABOVE AND USES MATERIALS AND COLORS NATIVE TO SAUSALITO.

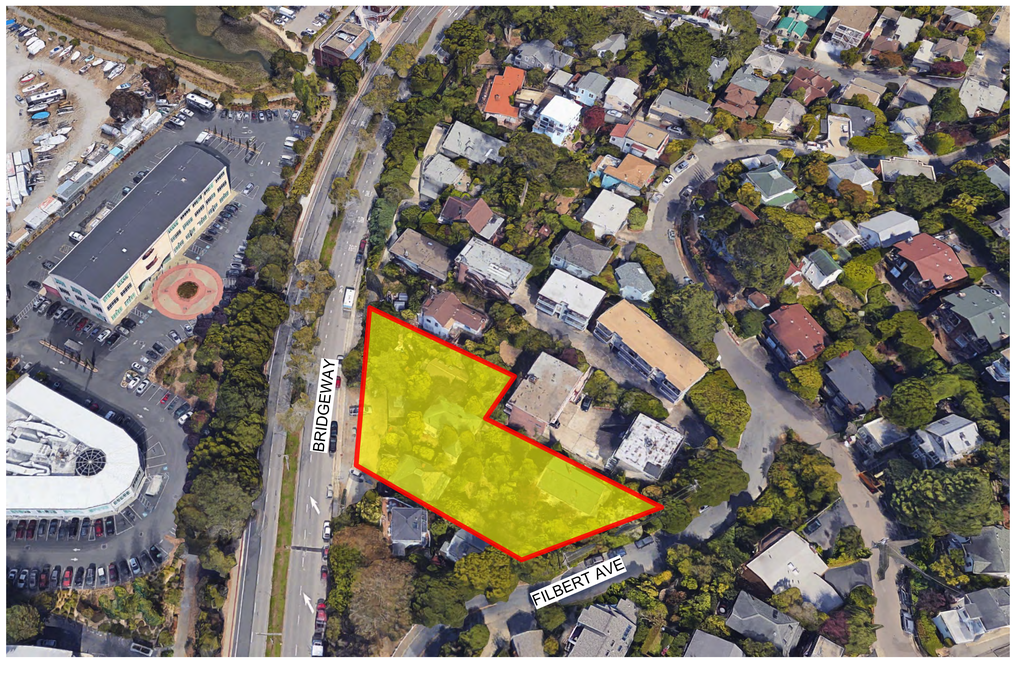
THIS CENTRAL LOCATION PROVIDES QUICK ACCESS TO THE FREEWAY AND PUBLIC TRANSPORTION.

PROJECT RENDERING - LOOKING NORTH **4**

(SITE OUTLINE IS SHOWN DIAGRAMMATICALLY)

EXISTING SITE CONDITIONS - LOOKING SOUTH **3**

(SITE OUTLINE IS SHOWN DIAGRAMMATICALLY)



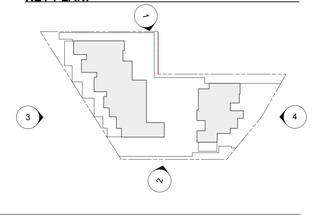
EXISTING SITE CONDITIONS - LOOKING EAST **2**

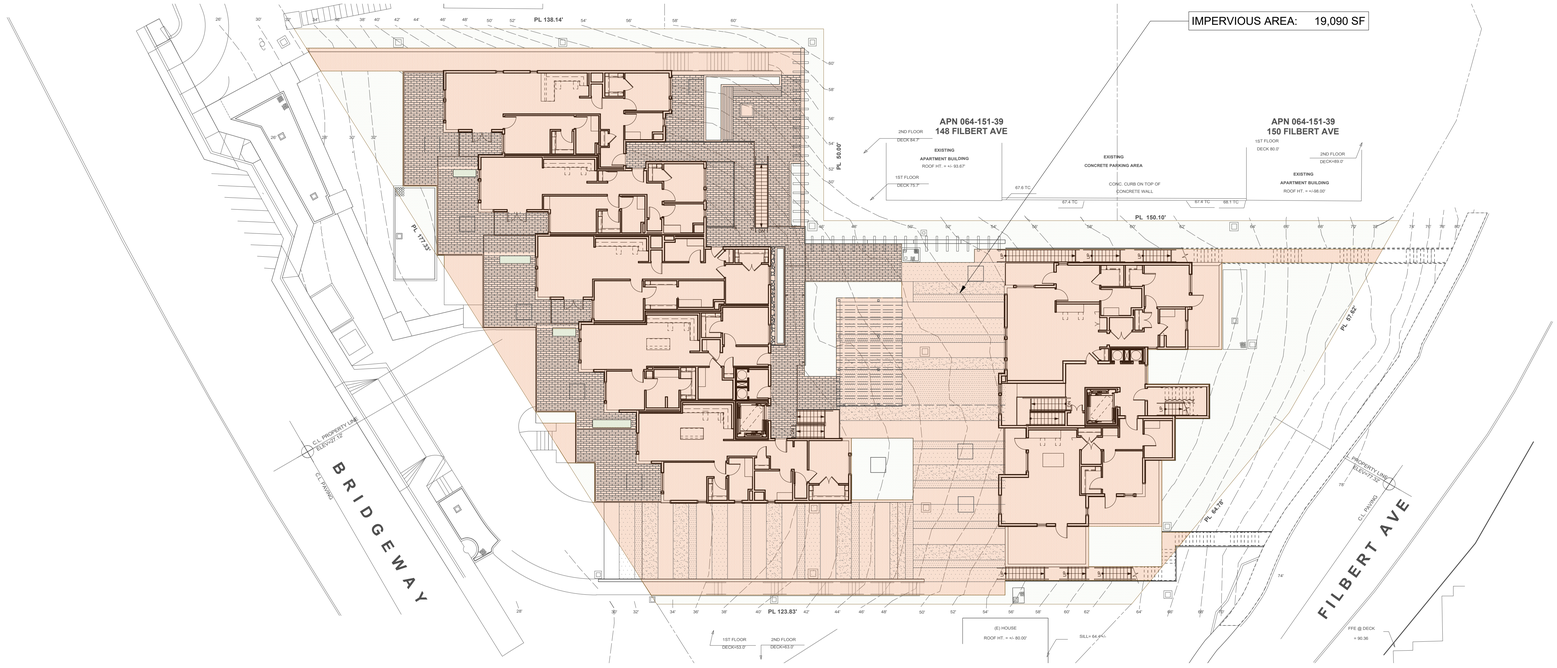
(SITE OUTLINE IS SHOWN DIAGRAMMATICALLY)

EXISTING SITE CONDITIONS - LOOKING WEST **1**

(SITE OUTLINE IS SHOWN DIAGRAMMATICALLY)

KEY PLAN:





PERMEABILITY DIAGRAM 2

1/16" = 1'-0"

PERMEABILITY	
LOT AREA	25,461 SF
ALLOWABLE IMPERVIOUS SRF. MAXIMUM	75%
ALLOWED IMPERVIOUS SRF.	**19,096 SF**
PERMEABILITY CALCULATIONS	
RATIO	75%
IMPERVIOUS SRF.	19,090 SF
TOTAL IMPERVIOUS SRF.:	**19,090 SF**

AREA KEY:

PERVIOUS SURFACE

IMPERVIOUS SURFACE

BUILDING 1:
RESIDENTIAL AREA 6,657 SF
DECK AREA ABOVE GARAGE 1,927 SF
TOTAL 8,584 SF

RESIDENTIAL AREA: 6,657 SF

DECK AREA ABOVE GARAGE: 1,927 SF

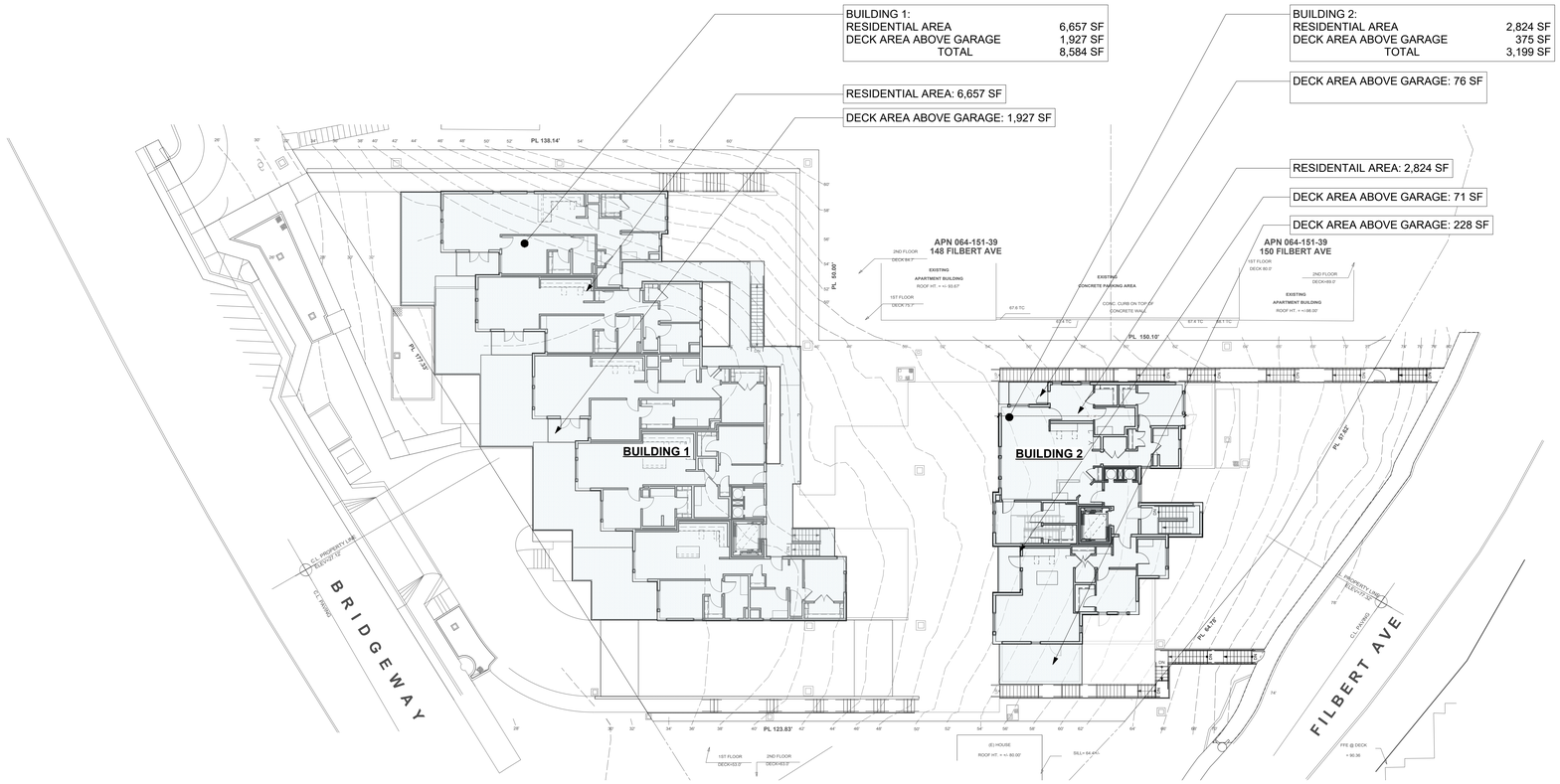
BUILDING 2:
RESIDENTIAL AREA 2,824 SF
DECK AREA ABOVE GARAGE 375 SF
TOTAL 3,199 SF

DECK AREA ABOVE GARAGE: 76 SF

RESIDENTAIL AREA: 2,824 SF

DECK AREA ABOVE GARAGE: 71 SF

DECK AREA ABOVE GARAGE: 228 SF



BUILDING COVERAGE DIAGRAM 1

1/16" = 1'-0"

BUILDING COVERAGE	
LOT AREA	25,461 SF
ALLOWABLE BLDG. COVERAGE MAX.	0.5
ALLOWED BLDG. COVERAGE	**12,731 SF**
BLDG. COVERAGE PROPOSED:	
BUILDING 1	8,584 SF
BUILDING 2	3,199 SF
TOTAL BLDG COVERAGE	11,783 SF
RATIO (11,783 SF/ 25,461SF)	0.46

AREA KEY:

BUILDING COVERAGE

ZONING DIAGRAMS

3DE ARCHITECTURE

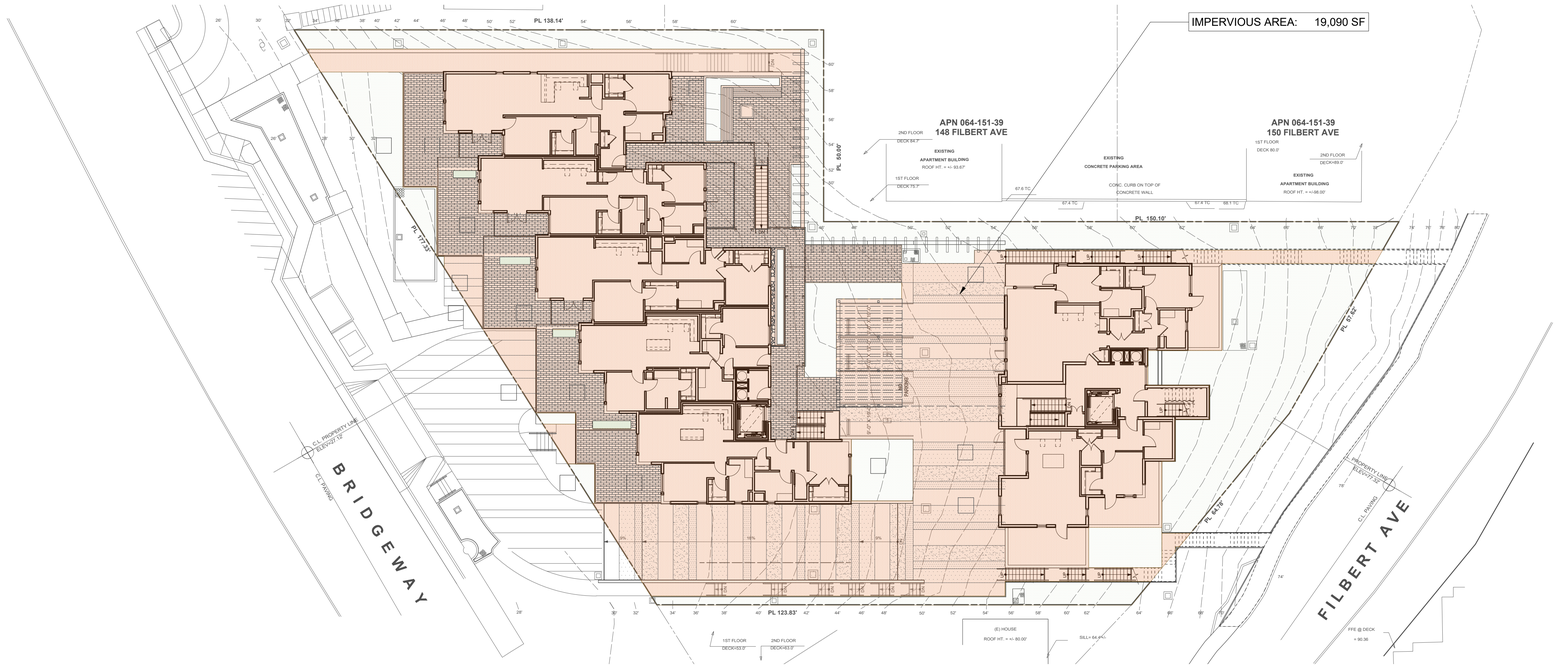
SY JARDINES LOOKOUT, LLC

1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH

TRUE NORTH

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | **A0.10**



PERMEABILITY DIAGRAM 4

1/16" = 1'-0"

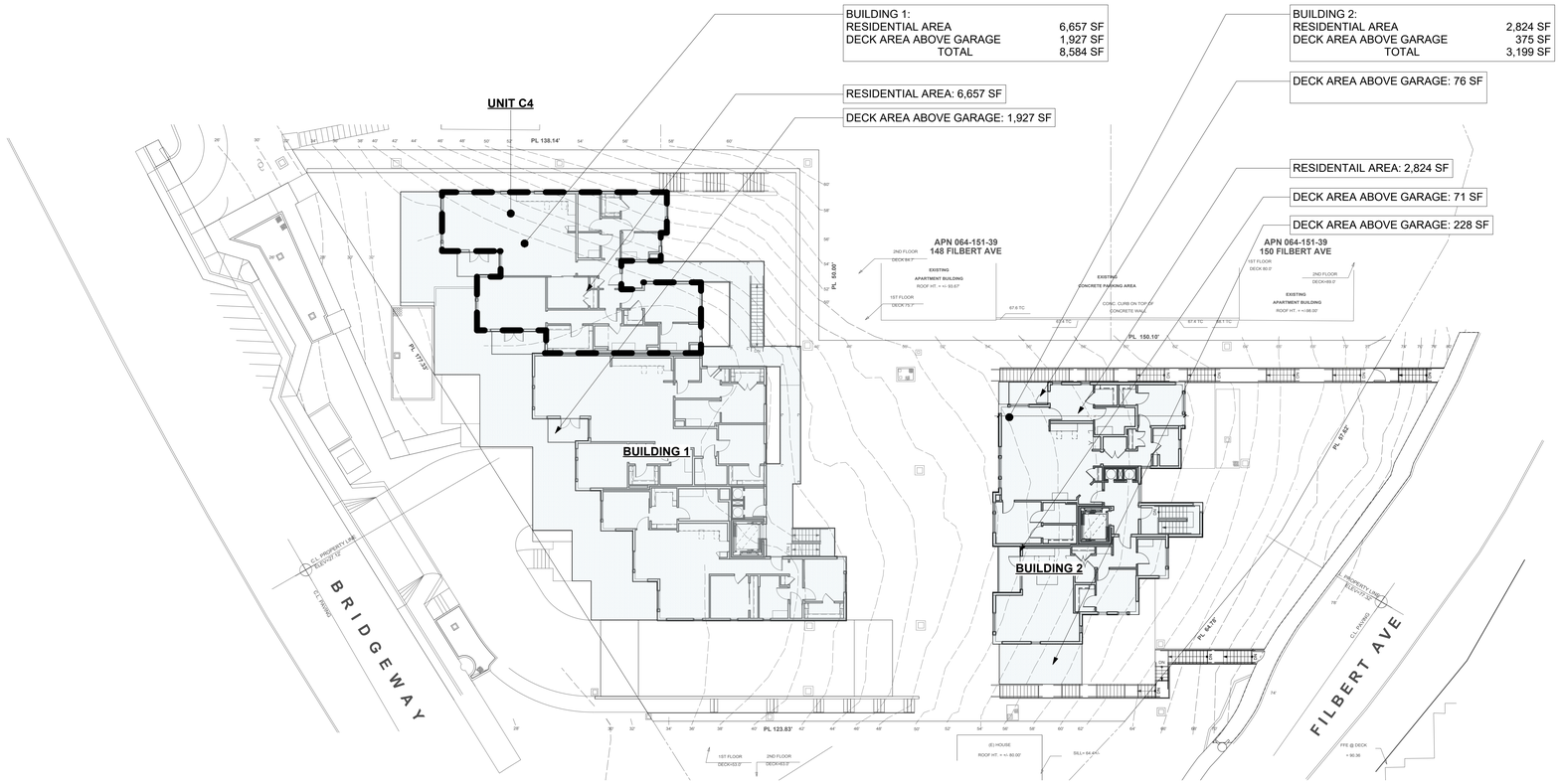
PERMEABILITY - SINGLE UNIT	
LOT AREA	25,461 SF
ALLOWABLE IMPERVIOUS SRF. MAXIMUM	67.5%
ALLOWED IMPERVIOUS SRF.	**17,186 SF**
PERMEABILITY PROPOSED	
RATIO OF SINGLE UNIT	9.6%
IMPERVIOUS SRF.	19,090 SF
TOTAL IMPERVIOUS SRF.:	**1,833 SF**

AREA KEY:

PERVIOUS SURFACE

IMPERVIOUS SURFACE

SINGLE UNIT PRORATED CALCULATION	
LARGEST UNIT AREA (UNIT C4)	2,221 SF
TOTAL UNIT AREA	23,029 SF
PERCENTAGE OF TOTAL UNIT AREA	9.6%



BUILDING COVERAGE DIAGRAM 3

1/16" = 1'-0"

BUILDING COVERAGE - SINGLE UNIT	
LOT AREA	25,461 SF
ALLOWABLE SINGLE UNIT COVERAGE MAX.	0.35
ALLOWED SINGLE UNIT COVERAGE	**8,911 SF**
SINGLE UNIT COVERAGE PROPOSED:	
RATIO OF SINGLE UNIT	9.6%
BLDG COVERAGE	11,783 SF
TOTAL COVERAGE PER SINGLE UNIT	1,131 SF

AREA KEY:

BUILDING COVERAGE

ZONING DIAGRAMS - SINGLE UNIT LIMITATION

3DE ARCHITECTURE

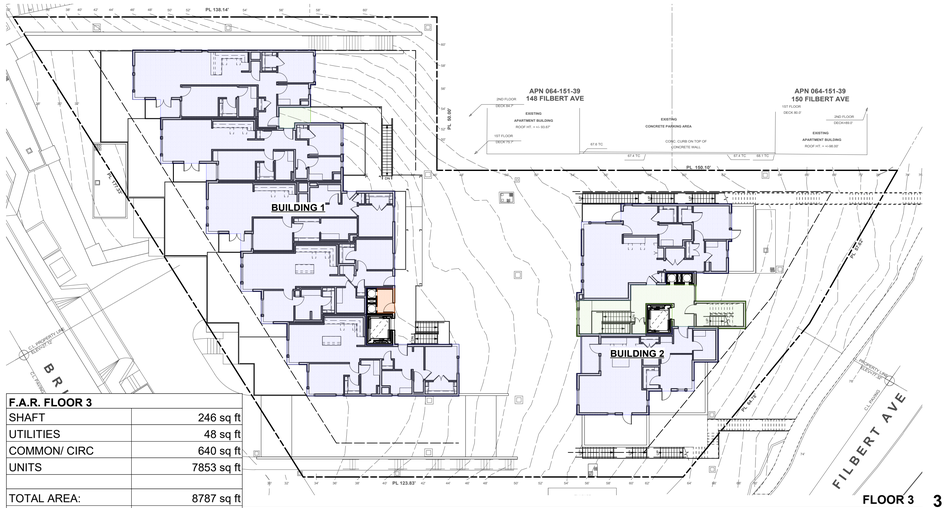
SY JARDINES LOOKOUT, LLC

1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH

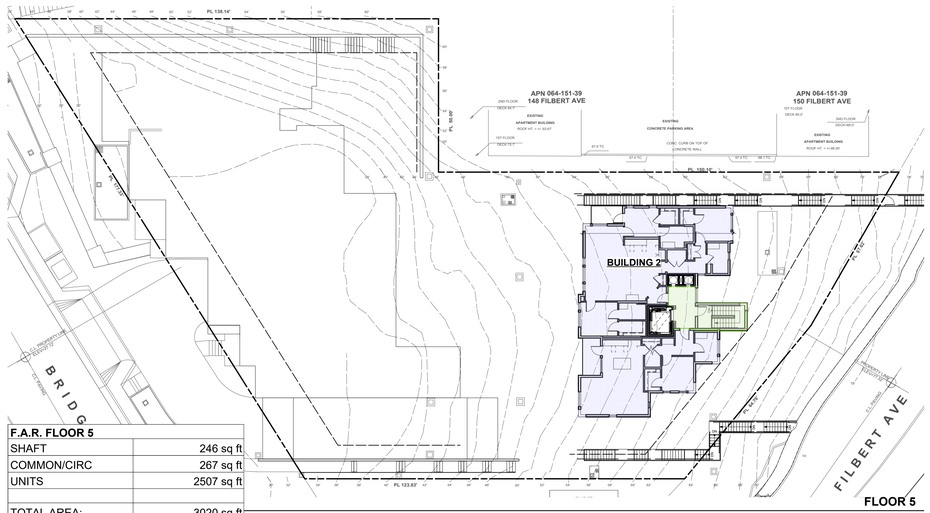
TRUE NORTH

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | **A0.10a**



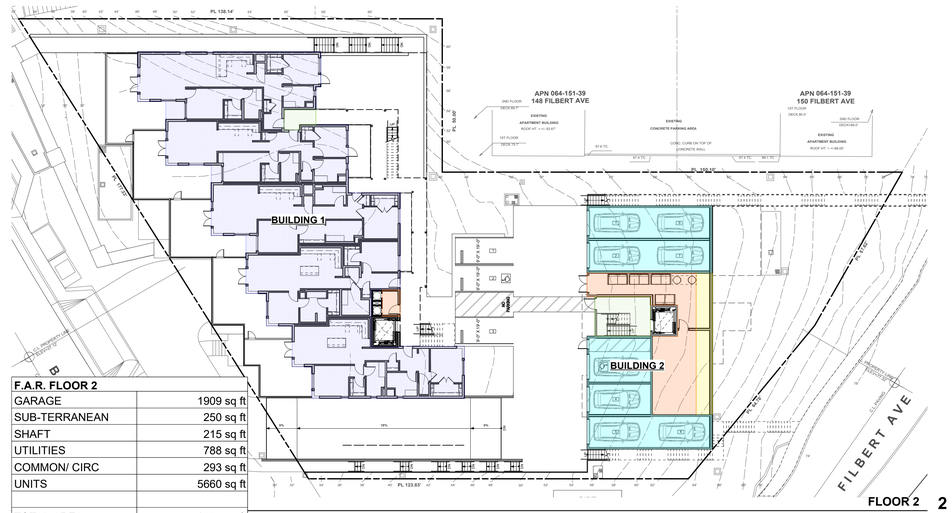
F.A.R. FLOOR 3	
SHAFT	246 sq ft
UTILITIES	48 sq ft
COMMON/ CIRC	640 sq ft
UNITS	7853 sq ft
TOTAL AREA:	8787 sq ft
TOTAL F.A.R.:	**8541 sq ft**

FLOOR 3 3
1" = 20'-0"



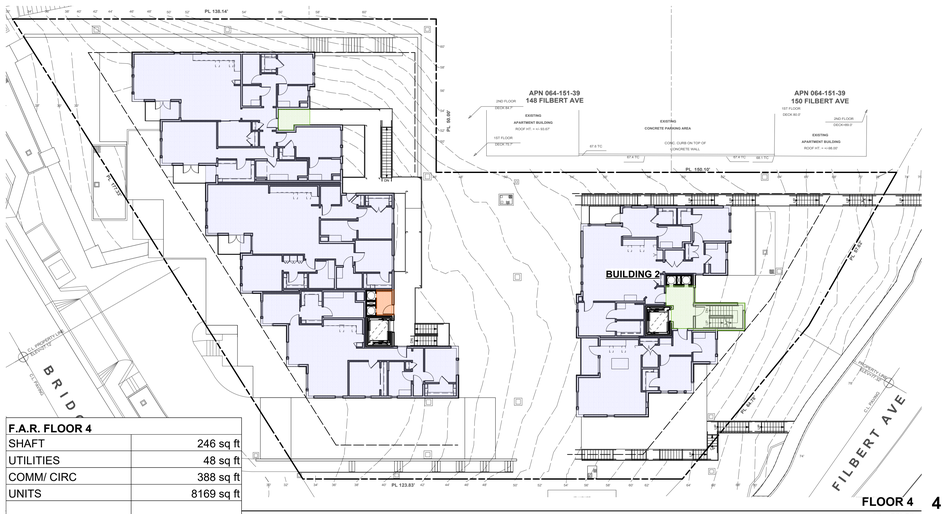
F.A.R. FLOOR 5	
SHAFT	246 sq ft
COMMON/CIRC	267 sq ft
UNITS	2507 sq ft
TOTAL AREA:	3020 sq ft
TOTAL F.A.R.:	**2774 sq ft**

FLOOR 5 5
1" = 20'-0"



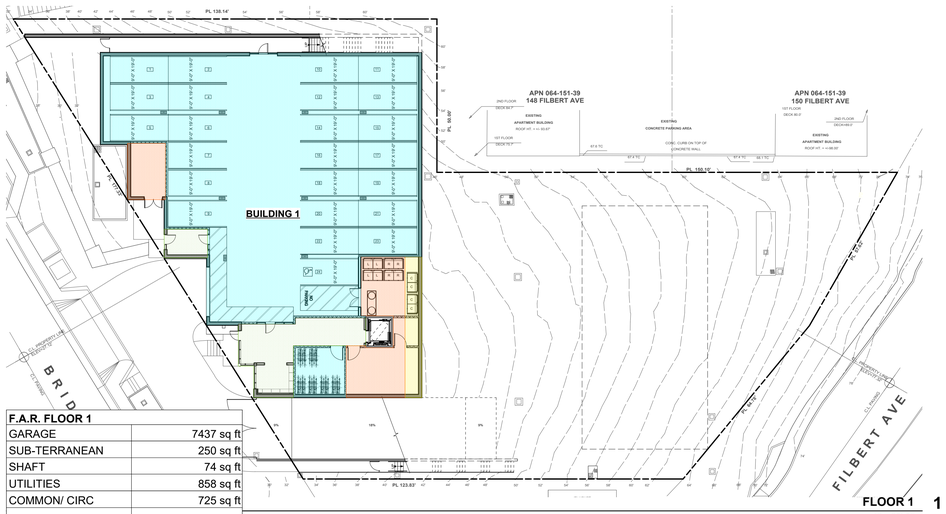
F.A.R. FLOOR 2	
GARAGE	1909 sq ft
SUB-TERRANEAN	250 sq ft
SHAFT	215 sq ft
UTILITIES	788 sq ft
COMMON/ CIRC	293 sq ft
UNITS	5660 sq ft
TOTAL AREA:	9115 sq ft
TOTAL F.A.R.:	**6741 sq ft**

FLOOR 2 2
1" = 20'-0"



F.A.R. FLOOR 4	
SHAFT	246 sq ft
UTILITIES	48 sq ft
COMM/ CIRC	388 sq ft
UNITS	8169 sq ft
TOTAL AREA:	8851 sq ft
TOTAL F.A.R.:	**8605 sq ft**

FLOOR 4 4
1" = 20'-0"



F.A.R. FLOOR 1	
GARAGE	7437 sq ft
SUB-TERRANEAN	250 sq ft
SHAFT	74 sq ft
UTILITIES	858 sq ft
COMMON/ CIRC	725 sq ft
TOTAL AREA:	9344 sq ft
TOTAL F.A.R.:	**1583 sq ft**

FLOOR 1 1
1" = 20'-0"

AREA KEY:

EXCL.	GARAGE/PARKING
INCL.	UTILITIES
INCL.	COMMON SPACE/ CIRCULATION
INCL.	UNITS
EXCL.	MAX 500 SF SUB-TERRANEAN
EXCL.	UNENCLOSED/ SHAFT AREAS

FLOOR AREA RATIO	
LOT AREA	25461 sq ft
ALLOWABLE F.A.R. MAXIMUM	80%
ALLOWED F.A.R.	**20369 sq ft**
F.A.R. CALCULATIONS	
FLOOR 1	1583 sq ft
FLOOR 2	6741 sq ft
FLOOR 3	8541 sq ft
FLOOR 4	8605 sq ft
FLOOR 5	2774 sq ft
TOTAL F.A.R.:	**28244 sq ft**

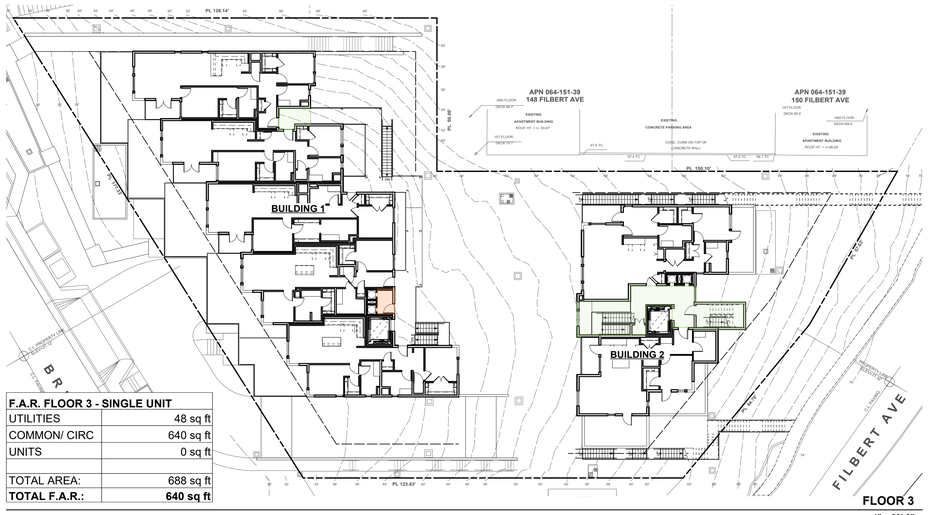
FLOOR AREA RATIO DIAGRAMS

BDE ARCHITECTURE

SY JARDINES LOOKOUT, LLC

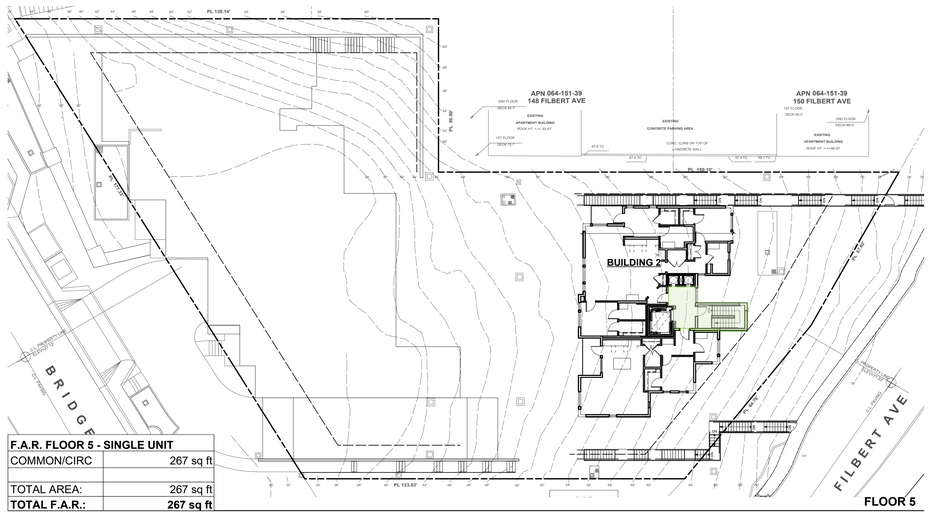
1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH
TRUE NORTH



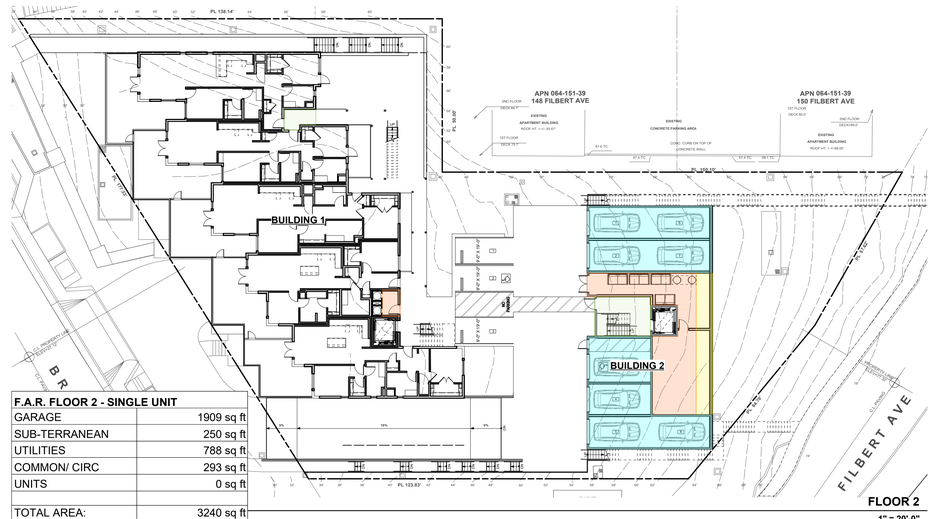
F.A.R. FLOOR 3 - SINGLE UNIT	
UTILITIES	48 sq ft
COMMON/ CIRC	640 sq ft
UNITS	0 sq ft
TOTAL AREA:	688 sq ft
TOTAL F.A.R.:	**640 sq ft**

FLOOR 3 9
1" = 20'-0"



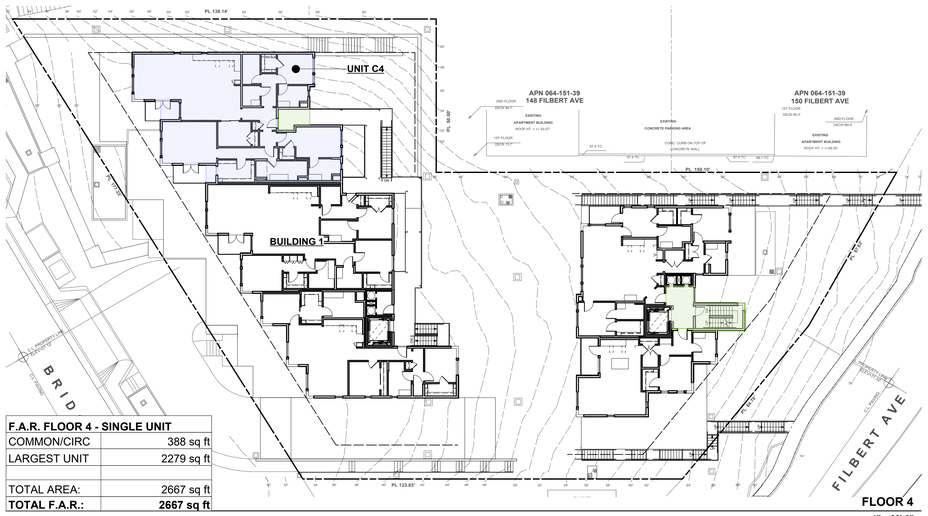
F.A.R. FLOOR 5 - SINGLE UNIT	
COMMON/CIRC	267 sq ft
TOTAL AREA:	267 sq ft
TOTAL F.A.R.:	**267 sq ft**

FLOOR 5 11
1" = 20'-0"



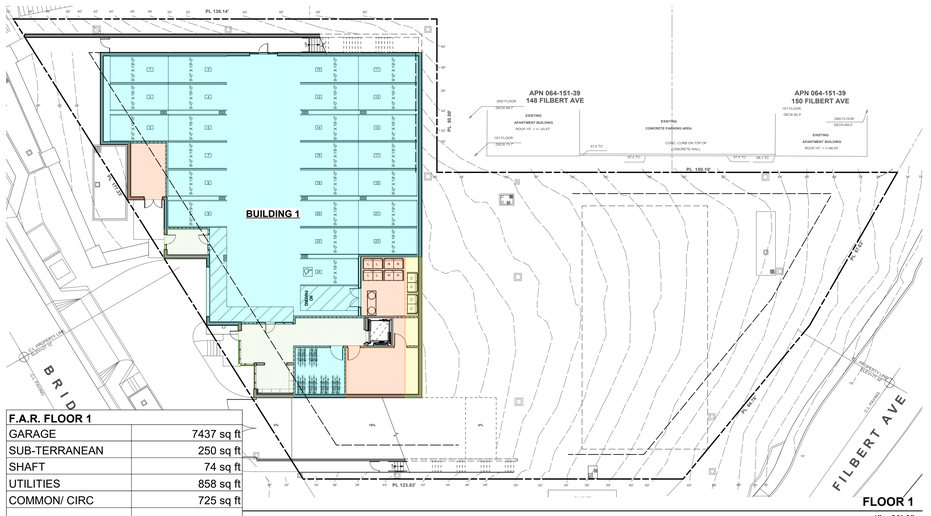
F.A.R. FLOOR 2 - SINGLE UNIT	
GARAGE	1909 sq ft
SUB-TERRANEAN	250 sq ft
UTILITIES	788 sq ft
COMMON/ CIRC	293 sq ft
UNITS	0 sq ft
TOTAL AREA:	3240 sq ft
TOTAL F.A.R.:	**1081 sq ft**

FLOOR 2 8
1" = 20'-0"



F.A.R. FLOOR 4 - SINGLE UNIT	
COMMON/CIRC	388 sq ft
LARGEST UNIT	2279 sq ft
TOTAL AREA:	2667 sq ft
TOTAL F.A.R.:	**2667 sq ft**

FLOOR 4 10
1" = 20'-0"



F.A.R. FLOOR 1	
GARAGE	7437 sq ft
SUB-TERRANEAN	250 sq ft
SHAFT	74 sq ft
UTILITIES	858 sq ft
COMMON/ CIRC	725 sq ft
TOTAL AREA:	9344 sq ft
TOTAL F.A.R.:	**1583 sq ft**

FLOOR 1 7
1" = 20'-0"

AREA KEY:

EXCL.	GARAGE/PARKING
INCL.	UTILITIES
INCL.	COMMON SPACE/ CIRCULATION
INCL.	UNITS
EXCL.	MAX 500 SF SUB-TERRANEAN
EXCL.	UNENCLOSED/ SHAFT AREAS

FLOOR AREA RATIO - SINGLE UNIT	
LOT AREA	25461 sq ft
ALLOWABLE F.A.R. MAXIMUM	45%
ALLOWED F.A.R.	**11457 sq ft**
F.A.R. CALCULATIONS	
FLOOR 1	1583 sq ft
FLOOR 2	1081 sq ft
FLOOR 3	640 sq ft
FLOOR 4 (C4 unit area added below)	2667 sq ft
FLOOR 5	267 sq ft
TOTAL F.A.R.	**6238 sq ft**
TOTAL F.A.R. (6238) X 9.6% + (C4 unit) 2279 =	**2878 sq ft**
RATIO	11.3%

FLOOR AREA RATIO DIAGRAMS - SINGLE UNIT LIMITATION

*** REDUCED SET BACK**

PER 10.40.070-A, SETBACKS' GENERAL PURPOSE ARE
1) TO PROVIDE LIGHT AND OPEN SPACE BETWEEN STRUCTURES ON THE SAME AND ADJOINING LOTS
2) TO PROVIDE OPEN SPACE BETWEEN STRUCTURES AND ADJOINING PEDESTRIANS WAYS
3) TO INCREASE SETBACKS AND PROVIDE VISUAL RELIEF ALONG PROPERTY LINES WITH LONG UNBROKEN WALLS
4) TO PROVIDE FLEXIBILITY IN THE APPLICATION AND SETBACK REQUIREMENTS

PER 10.40.070-C2.2, FOR PARCELS FRONTING ON MORE THAN ONE STREET WITH A RIGHT OF WAY LARGER THAN 50 FEET, SETBACKS MAY BE DECREASED FOR PARCELS FRONTING ON TWO NON-INTERSECTING STREETS, ..., PROVIDED THE PROPOSAL IS SUBJECT TO DESIGN REVIEW AND THE PLANNING COMMISSION FINDS THE REDUCED SETBACK DOES NOT DIMINISH THE OVERALL PURPOSE OF PROVIDING PHYSICAL AND VISUAL SPACE BETWEEN RESIDENCES. THE PROPOSED SETBACK MEETS THOSE REQUIREMENTS.

PER 10.40.40-C, EXCEPTIONS TO REQUIRED SETBACKS, ACCESSORY STRUCTURES AND BUILDINGS MAY OCCUPY REQUIRED YARD AREAS ONLY TO THE EXTENT PERMITTED BY 10.44.020 (ACCESSORY USES AND STRUCTURES)

PER 10.44.020-B.8, PRIVATE GARAGES, CARPORTS AND PARKING AREAS ARE EXEMPT.

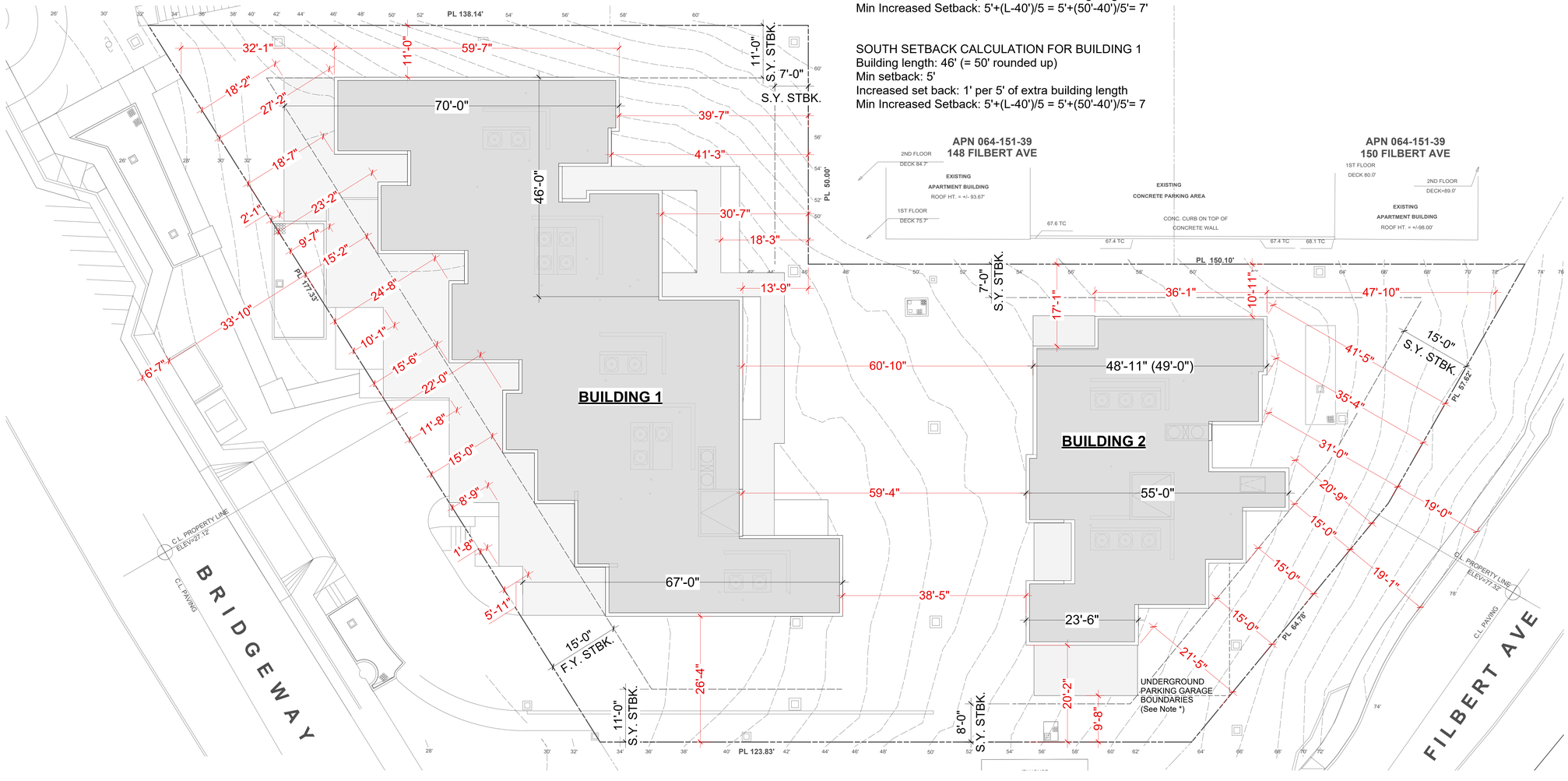
INCREASED SIDE SETBACK

Per 10.40.070 Setbacks, Chapter D.1: Length of Building. The length of a structure shall be measured along a line parallel to the adjoining side lot line. Where the length of a structure, building wall, or series of attached building walls exceeds 40 feet measured parallel to the adjoining side lot line, the minimum setback shall be increased at the rate of one foot for each five feet such length exceeds 40 feet. The full length of the building shall be subject to the increased setback. If the addition will increase the building length to exceed 40 feet, only the addition shall require the additional side yard setback. The full length of the addition shall be subject to the increased setback.

EAST SETBACK CALCULATION FOR BUILDING 1
Building length: 70'
Min setback: 5'
Increased set back: 1' per 5' of extra building length
Min Increased Setback: 5'+(L-40')/5 = 5'+(70'-40')/5'= 11'

EAST SETBACK CALCULATION FOR BUILDING 2
Building length: 49' (= 50' rounded up)
Min setback: 5'
Increased set back: 1' per 5' of extra building length
Min Increased Setback: 5'+(L-40')/5 = 5'+(50'-40')/5'= 7'

SOUTH SETBACK CALCULATION FOR BUILDING 1
Building length: 46' (= 50' rounded up)
Min setback: 5'
Increased set back: 1' per 5' of extra building length
Min Increased Setback: 5'+(L-40')/5 = 5'+(50'-40')/5'= 7



WEST SETBACK CALCULATION FOR BUILDING 1
Building length: 67' (= 70' rounded up)
Min setback: 5'
Increased set back: 1' per 5' of extra building length
Min Increased Setback: 5'+(L-40')/5 = 5'+(70'-40')/5'= 11'

WEST SETBACK CALCULATION FOR BUILDING 2
5' setback required

Calculation at worst case scenario:
Building length: 55'
Min setback: 5'
Increased set back: 1' per 5' of extra building length
Min Increased Setback: 5'+(L-40')/5 = 5'+(55'-40')/5'= 8'

BUILDING SETBACK DIAGRAM

BDE ARCHITECTURE
SY JARDINES LOOKOUT, LLC
1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH
TRUE NORTH

1" = 1'-0"
0 5 10 20

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | **A0.12**

APN 064-151-04
1741 BRIDGEWAY

(E) HOUSE

PL 138.14'

11'-0" S.Y. STBK.

7'-0" S.Y. STBK.

APN 064-151-39
148 FILBERT AVE

2ND FLOOR
DECK 84.7'

EXISTING
APARTMENT BUILDING
ROOF HT. = +/- 93.67'

1ST FLOOR
DECK 75.7'

EXISTING
CONCRETE PARKING AREA

CONC. CURB ON TOP OF
CONCRETE WALL

67.6 TC

67.4 TC

APN 064-151-39
150 FILBERT AVE

1ST FLOOR
DECK 80.0'

2ND FLOOR
DECK=89.0'

EXISTING
APARTMENT BUILDING
ROOF HT. = +/-98.00'

67.4 TC

68.1 TC

PL 50.00'

PL. 150.10'

PL. 177.33'

15'-0" F.Y. STBK.

PUBLIC SIDEWALK

CURB CUT

BUILDING 1

9'-0" X 19'-0" 1

9'-0" X 19'-0" 2

NO PARKING

9'-0" X 19'-0" 3

BUILDING 2

PL. 57.62'

PUBLIC SIDEWALK IMPROVEMENT

C.L. PROPERTY LINE
ELEV=27.12'

C.L. PAVING

BRIDGEWAY

PL. 64.76'

C.L. PROPERTY LINE
ELEV=77.32'

C.L. PAVING

FILBERT AVE

11'-0" S.Y. STBK.

PL 123.83'

8'-0" S.Y. STBK.

1ST FLOOR
DECK=53.0'

2ND FLOOR
DECK=63.0'

(E) HOUSE
ROOF HT. = +/- 78.50'

APN 064-151-01
1763 BRIDGEWAY

(E) HOUSE
ROOF HT. = +/- 80.00'

SILL= 64.4'+/-

FFE @ DECK
= 90.36

(E) HOUSE

FFE @ DECK
= 8'-

LEGEND

- LANDSCAPE UPGRADES
- CIRCULATION (STAIRS/ FIRE ACCESS)
- CIRCULATION (DRIVEWAY)
- STREET IMPROVEMENTS
- PG&E TRANSFORMER & ELECTRICAL ROOM ACCESS & TRASH STAGING

ENCROACHMENT DIAGRAM

BDE ARCHITECTURE

SY JARDINES LOOKOUT, LLC

1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH

TRUE NORTH

1" = 1'-0"

0 5 10 20

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA

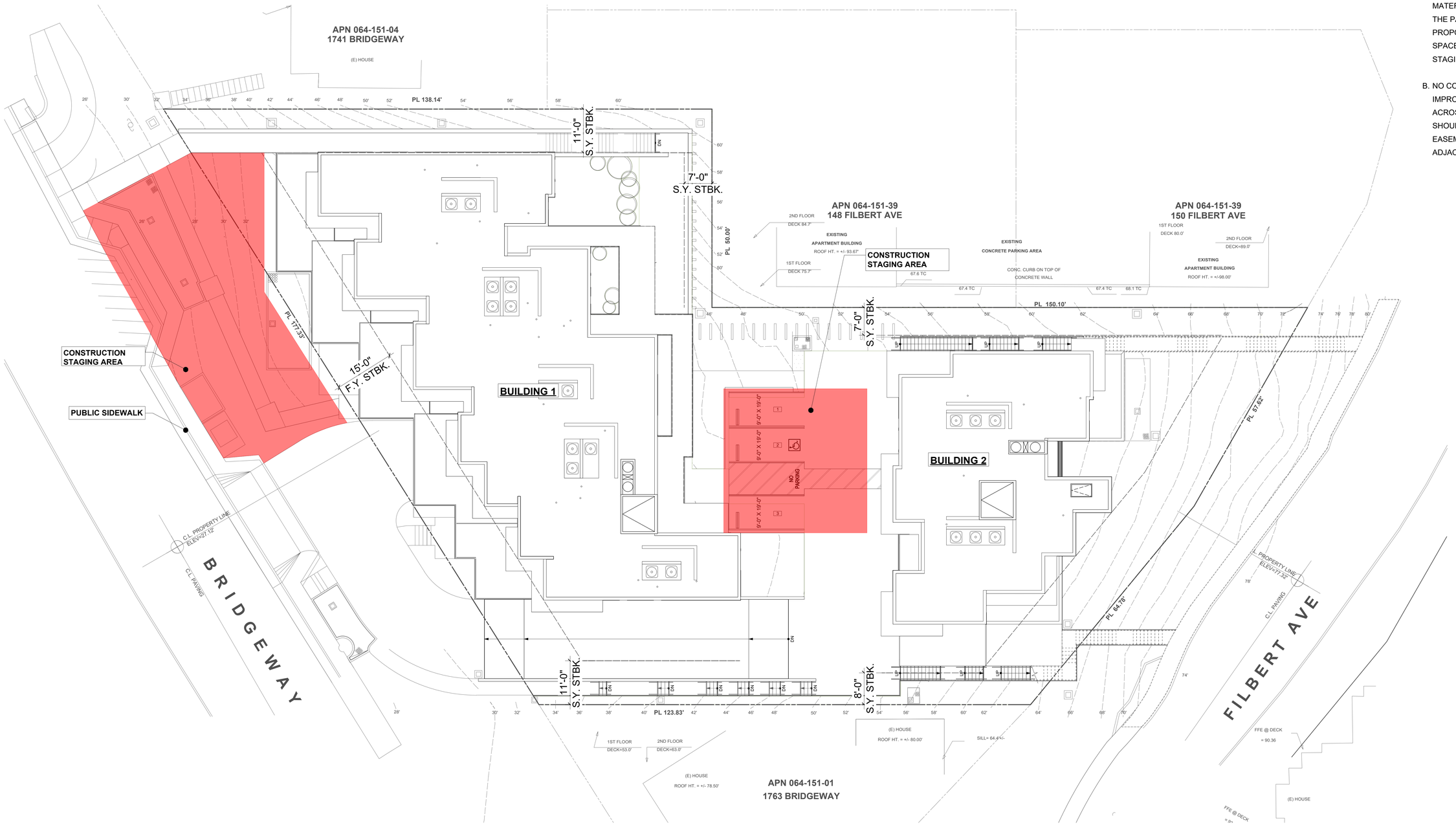
05.04.2022

A0.13

NOTES:

A. DURING CONSTRUCTION, STAGING WILL REMAIN OUT OF THE PUBLIC RIGHT OF WAY AND PUBLIC SIDEWALK. THE LARGE 39' MINIMUM SET BACK WILL BE USED FOR STORING EQUIPMENT AND MATERIALS AS DEPICTED BELOW. ALSO, THE PARKING LOT BETWEEN THE TWO PROPOSED BUILDINGS HAS SUFFICIENT SPACE TO BE USED AS CONSTRUCTION STAGING FOR THE FILBERT BUILDING.

B. NO CONSTRUCTION ACTIVITIES OR IMPROVEMENTS WILL TAKE PLACE ACROSS NEIGHBOR PROPERTY LINES. SHOULD IMPROVEMENTS OCCUR, EASEMENTS SHALL BE REQUIRED FROM ADJACENT PROPERTY OWNERS.



LEGEND

CONSTRUCTION STAGING AREA

CONSTRUCTION STAGING DIAGRAM

3DE ARCHITECTURE

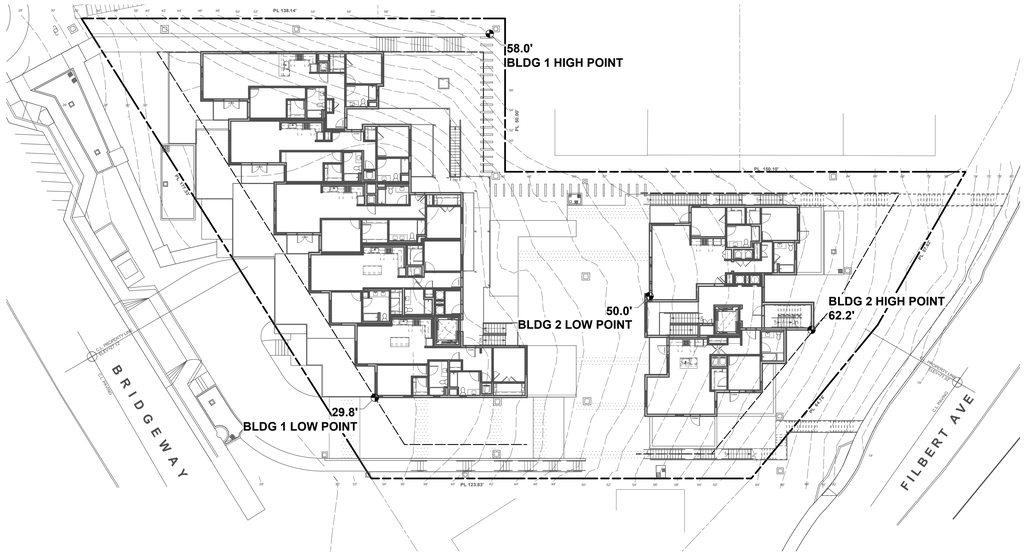
SY JARDINES LOOKOUT, LLC
1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH
TRUE NORTH

1" = 1'-0"

0 5 10 20

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | **A0.14**



PLAN DIAGRAM - HIGHEST & LOWEST POINT OF CONTACT **3**

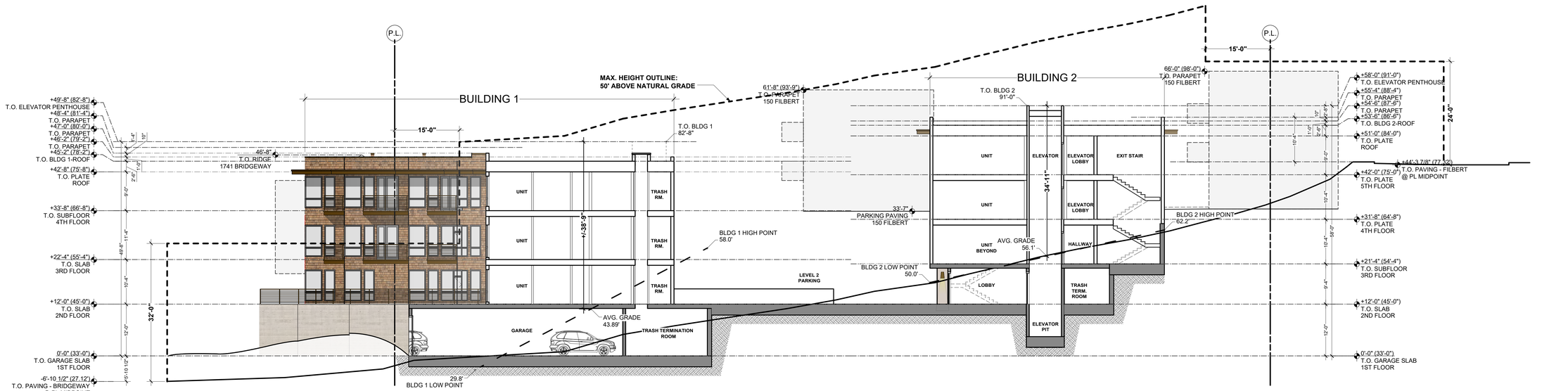
Building 1				
Story Pole Number	Roof-Top of Pole Elevation (FT)	Average Natural Grade (FT)	Building Height at Pole (FT)	Notes
SP21	45	43.89	1.11	
SP22	45	43.89	1.11	
SP23	45	43.89	1.11	
SP24	45	43.89	1.11	
SP25	45	43.89	1.11	
SP26	45	43.89	1.11	
SP27	45	43.89	1.11	
SP28	45	43.89	1.11	
SP29	45	43.89	1.11	
SP30	45	43.89	1.11	
SP31	45	43.89	1.11	
SP32	45	43.89	1.11	
SP33	79.17	43.89	35.28	1
SP34	79.17	43.89	35.28	1
SP35	79.17	43.89	35.28	1
SP36	79.17	43.89	35.28	1
SP37	79.17	43.89	35.28	1
SP38	79.17	43.89	35.28	1
SP39	80	43.89	36.11	1
SP40	80	43.89	36.11	1
SP41	80	43.89	36.11	1
SP42	80	43.89	36.11	1
SP43	81.33	43.89	37.44	1
SP44	81.33	43.89	37.44	1
SP45	81.33	43.89	37.44	1
SP46	79.17	43.89	35.28	1
SP47	79.17	43.89	35.28	1
SP48	79.17	43.89	35.28	1
SP49	79.17	43.89	35.28	1
SP50	79.17	43.89	35.28	1
SP51	79.17	43.89	35.28	1
SP52	79.17	43.89	35.28	1
SP53	80	43.89	36.11	1
SP54	79.17	43.89	35.28	1
SP55	79.17	43.89	35.28	1

Notes:
1 Exceeds height limit of R-3 District (32') SMC Table 10.22-2

Building 2				
Story Pole Number	Roof-Top of Pole Elevation (FT)	Average Natural Grade (FT)	Building Height at Pole (FT)	Notes
SP1	87.5	56.1	31.4	1
SP2	87.5	56.1	31.4	1
SP3	87.5	56.1	31.4	1
SP4	88.33	56.1	32.23	1,2
SP5	88.33	56.1	32.23	1,2
SP6	88.33	56.1	32.23	1,2
SP7	88.33	56.1	32.23	1,2
SP8	57.92	56.1	1.82	
SP9	57.92	56.1	1.82	
SP10	88.33	56.1	32.23	1,2
SP11	88.33	56.1	32.23	1,2
SP12	87.5	56.1	31.4	1
SP13	87.5	56.1	31.4	1
SP14	87.5	56.1	31.4	1
SP15	88.33	56.1	32.23	1,2
SP16	88.33	56.1	32.23	1,2
SP17	88.33	56.1	32.23	1,2
SP18	87.5	56.1	31.4	1
SP19	87.5	56.1	31.4	1
SP20	87.5	56.1	31.4	1

Notes:
1 Exceeds height for downhill slope properties (24') SMC 10.40.060
2 Exceeds height limit for R-3 (32') SMC Table 10.22-2

BUILDING HEIGHT TABLES (See Civil sheets C7 & C8 for story poles information) **2**



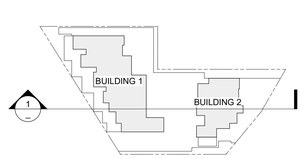
SECTION DIAGRAM **1**

HEIGHT REQUIREMENTS PER SAUSALITO MUNICIPAL CODE 10.40.060

HEIGHT CALCULATED PER SAUSALITO MUNICIPAL CODE SECTION 10.40.060

1. Standard Building Height. Building height is the vertical distance from the average level of the natural ground surface under the building to the highest point of the building or structure. To determine the height of a building, the highest and lowest points of contact with the natural grade are identified and the average of these two elevations is the point from which the permitted maximum height is measured. The highest and lowest points of contact are determined where the maximum vertical projections of the perimeter walls of the building contact the natural grade. Where more than one structure is proposed for construction, the permitted height shall be individually computed for each detached structure. Balconies, decks and similar appurtenances and projections shall not be included in measuring the primary structure's building height.

KEY PLAN:



BUILDING HEIGHT DIAGRAM

BDE ARCHITECTURE

SY JARDINES LOOKOUT, LLC

1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH
TRUE NORTH

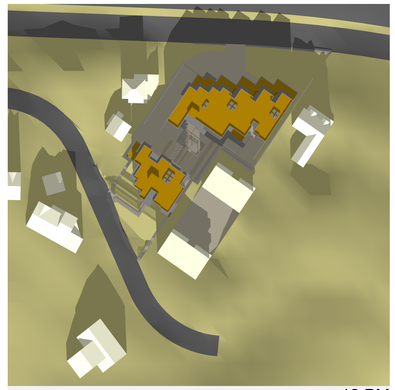
1" = 1'-0"

0 4 8 16

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | **A0.15**


9 AM


10 AM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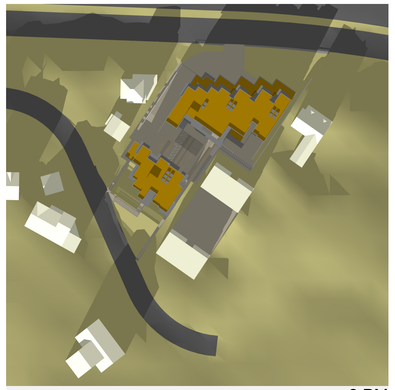
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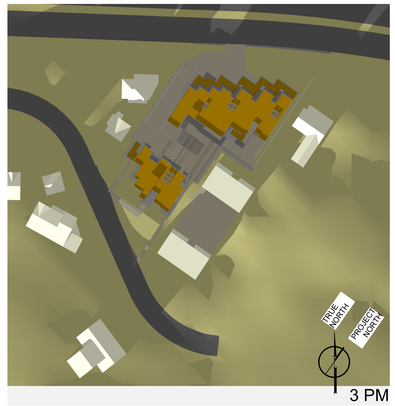

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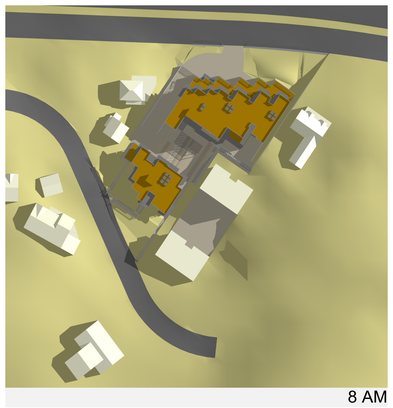
WINTER SOLSTICE 3

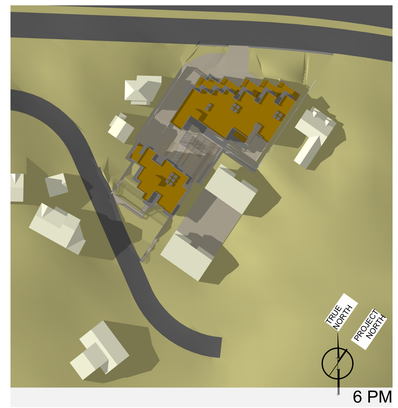

8 AM


10 AM


12 PM


2 PM


4 PM



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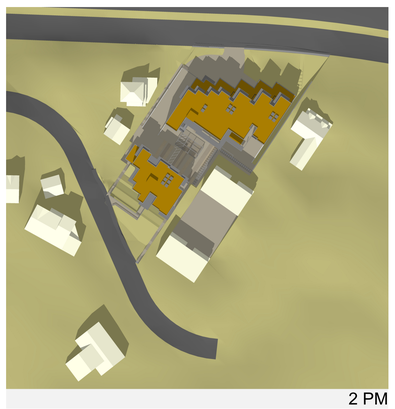
SUMMER SOLSTICE 2


8 AM


10 AM


12 PM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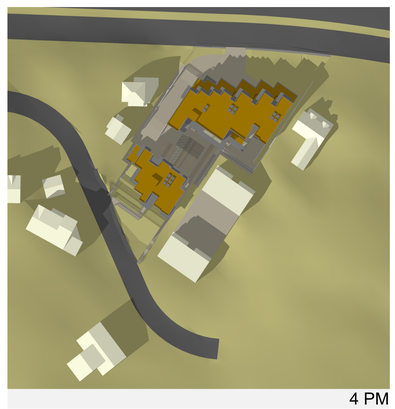
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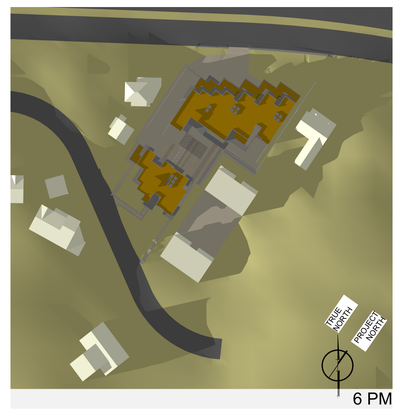


6 PM

EQUINOX 1

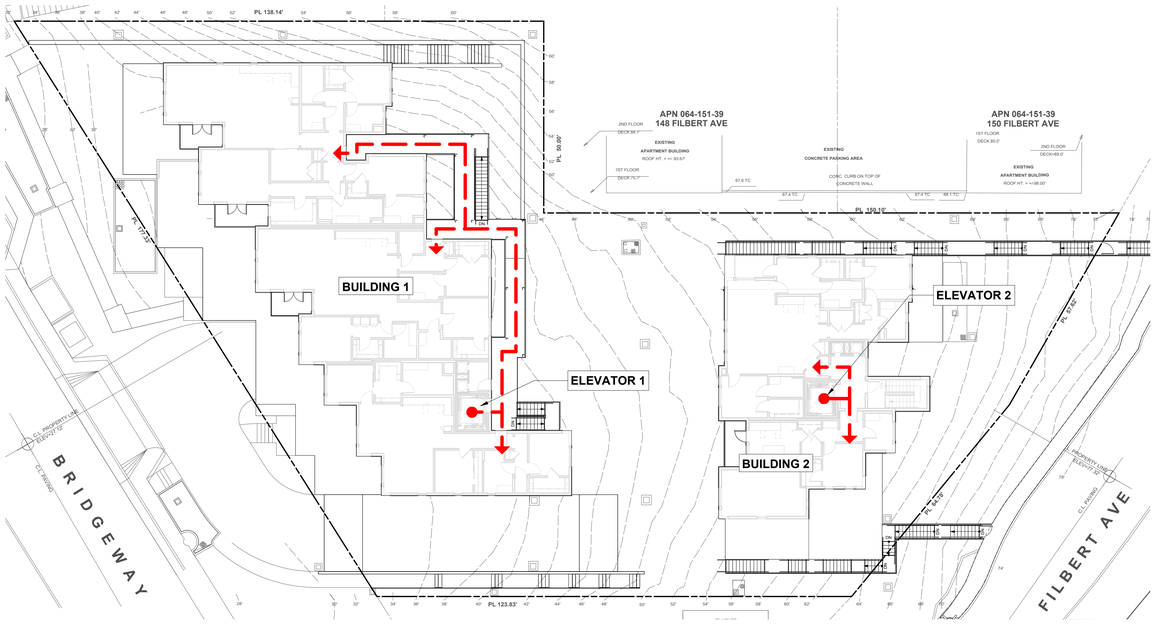
SHADOW STUDY DIAGRAMS

3DE ARCHITECTURE

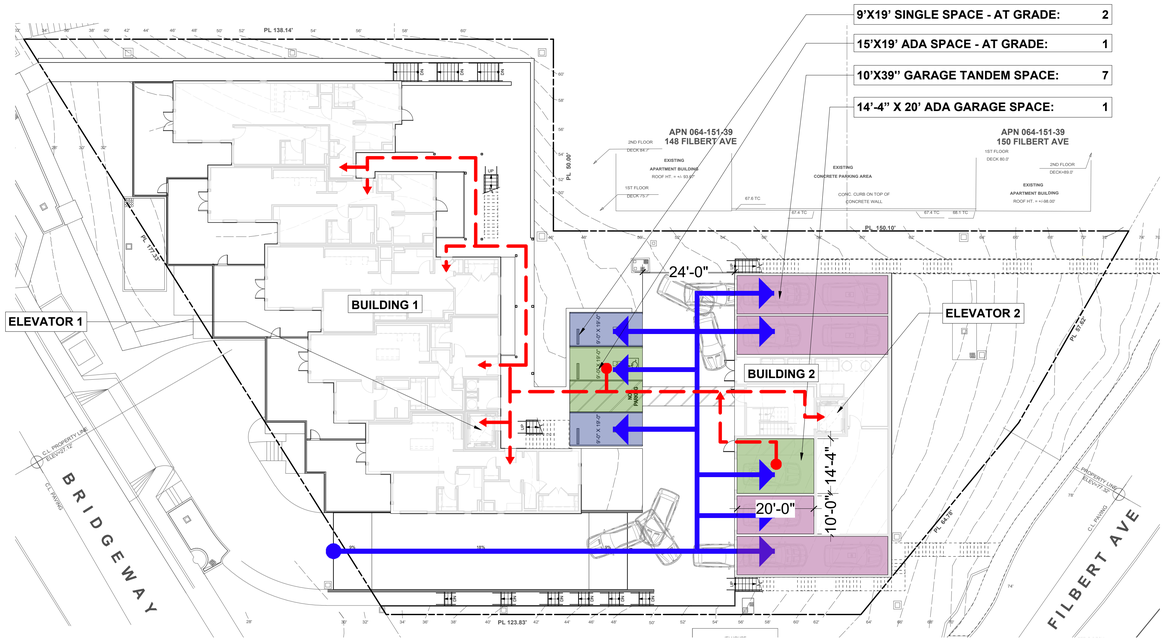
SY JARDINES LOOKOUT, LLC

1821 Ashton Ave
Burlingame, CA 94010

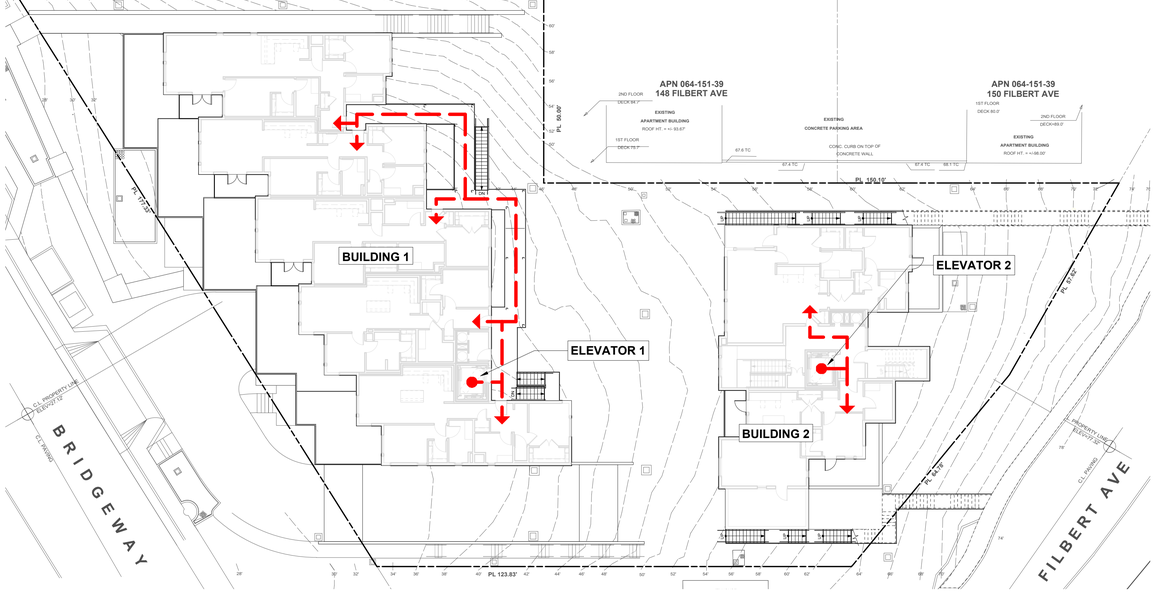
1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | **A0.16**



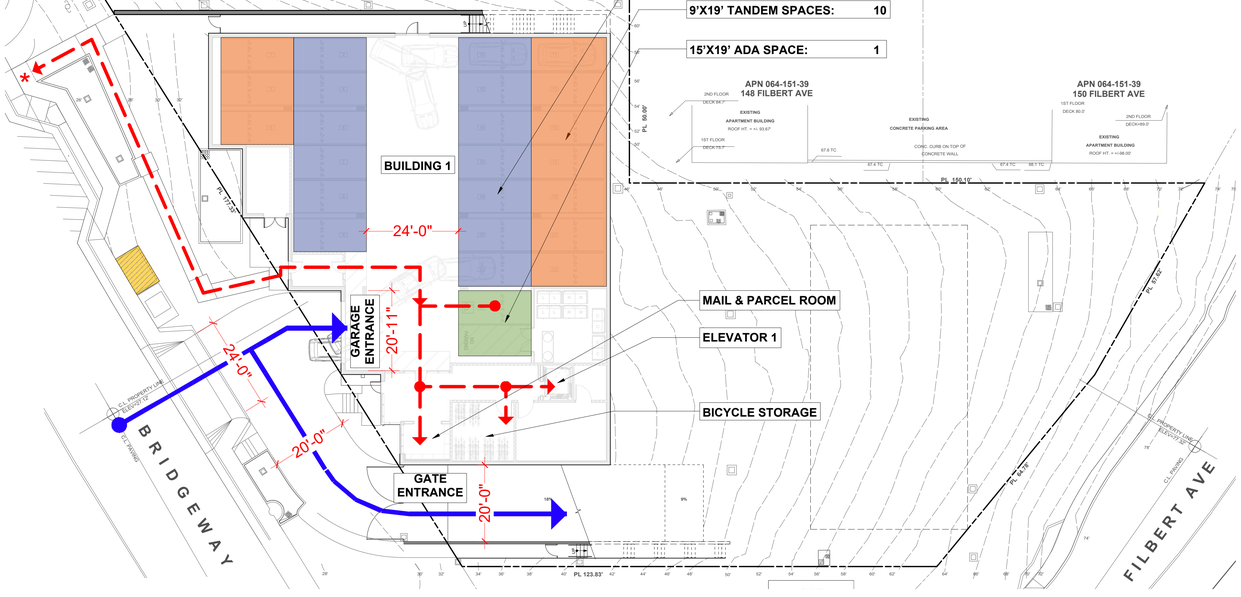
FLOORS 4-5 4
1/16" = 1'-0"



FLOOR 2 2
1/16" = 1'-0"



FLOOR 3 3
1/16" = 1'-0"



FLOOR 1 1
1/16" = 1'-0"

LEGEND

TANDEM PARKING	10 spaces	* ACCESSIBLE PATH TO SIDEWALK SEE SHEETS C1 & C4
SINGLE PARKING	15 spaces	
ADA PARKING	3 spaces	
GARAGE TANDEM	7 spaces	
LOADING/ TRASH PICKUP		

ACCESSIBLPATH FROM ADA PARKING

VEHICULAR CIRCULATION

PARKING DIAGRAMS AND ACCESSIBILITY

3DE ARCHITECTURE

SY JARDINES LOOKOUT, LLC

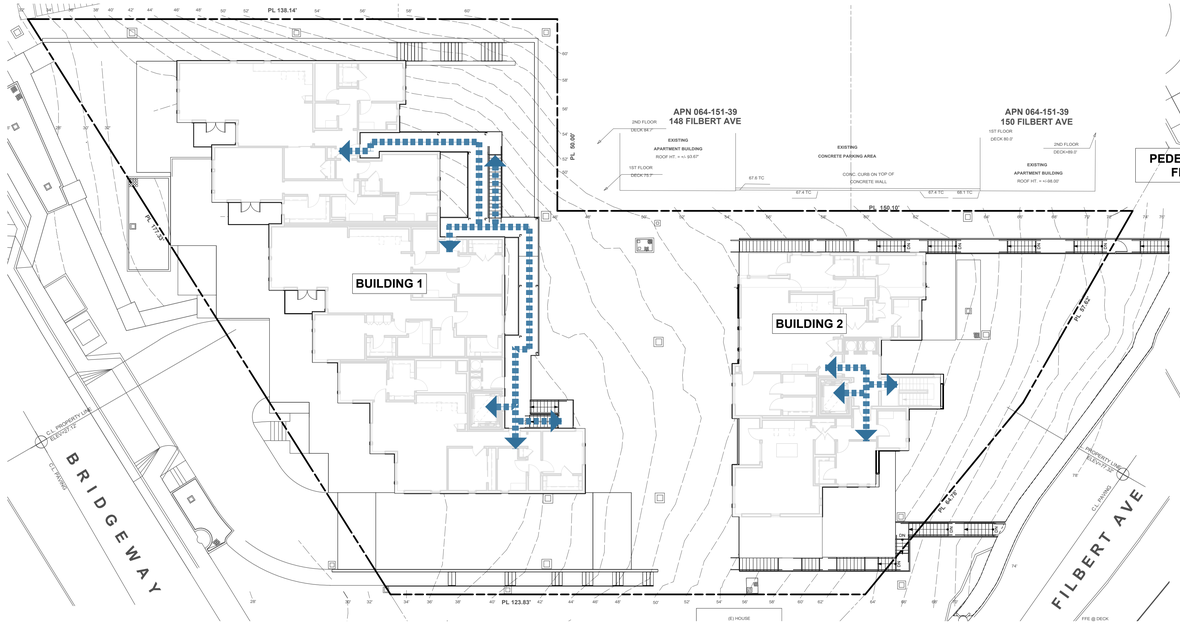
1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH
TRUE NORTH

1/16"= 1'-0"

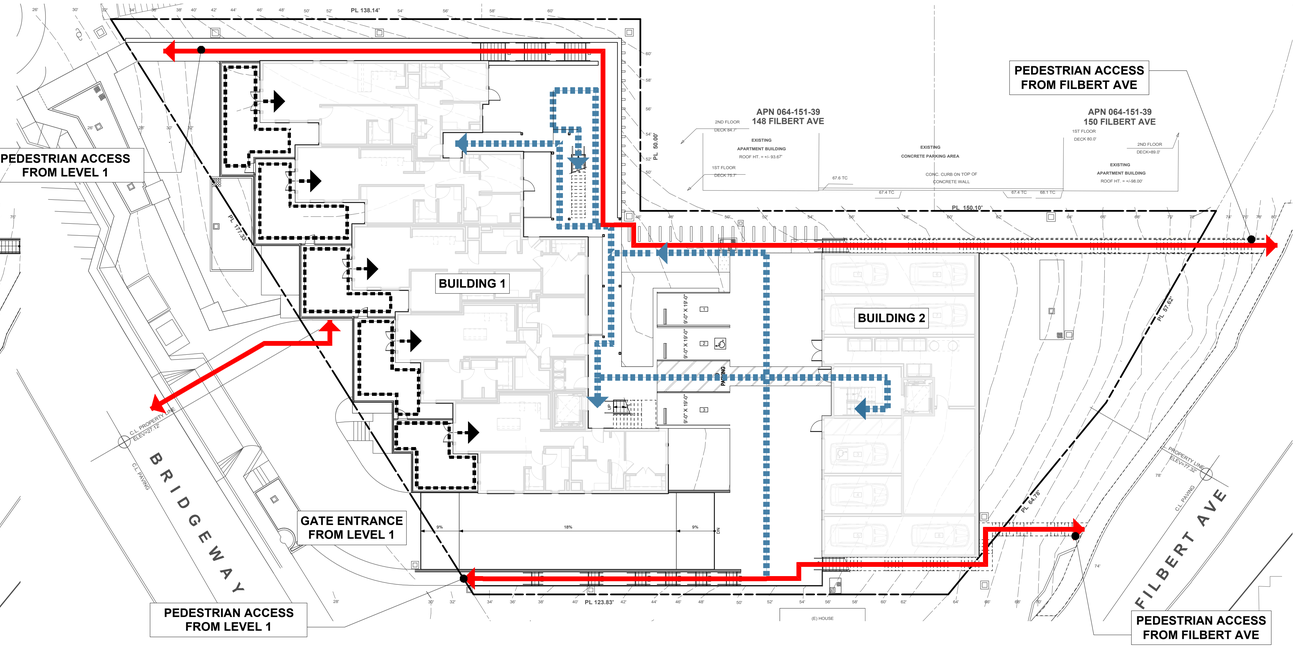
0 8 16 32

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA | 05.04.2022 | A0.17



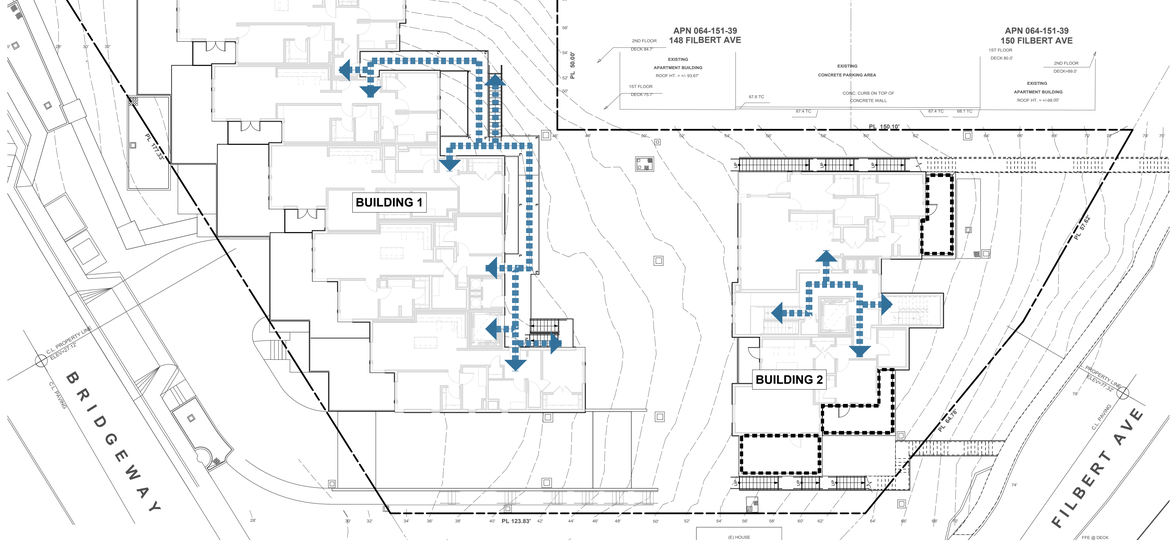
FLOOR 4-5 **4**

1/16" = 1'-0"



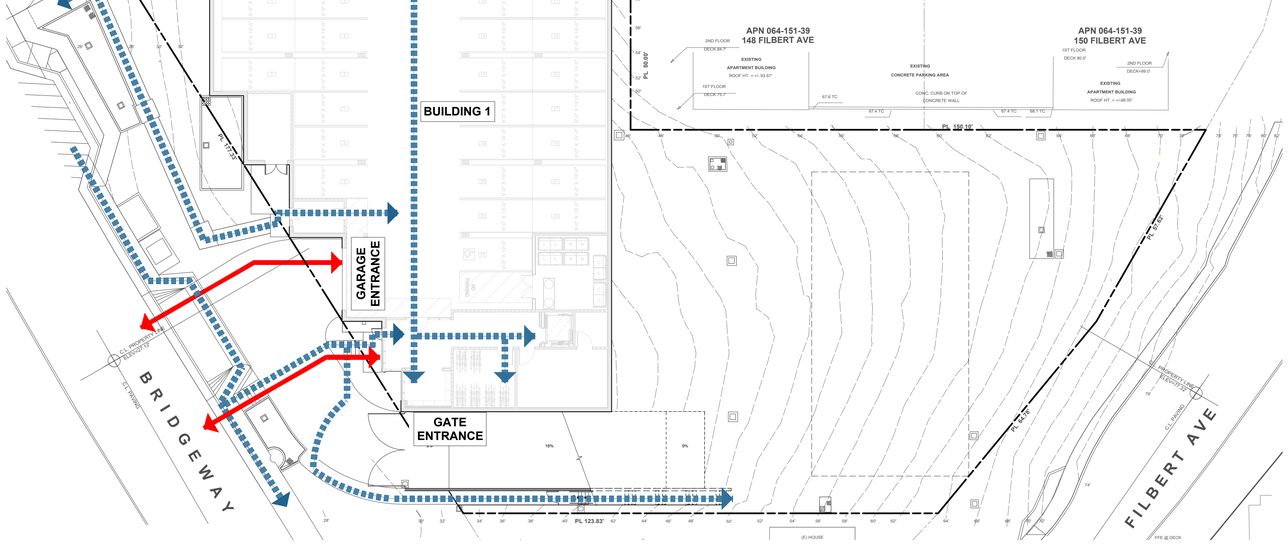
FLOOR 2 **2**

1/16" = 1'-0"



FLOOR 3 **3**

1/16" = 1'-0"



FLOOR 1 **1**

1/16" = 1'-0"

CIRCULATION PLAN LEGEND

- PEDESTRIAN CIRCULATION
- PRIVATE PATIO
- FIRE ACCESS PER FIRE DEPARTMENT

CIRCULATION DIAGRAMS

3DE ARCHITECTURE

SY JARDINES LOOKOUT, LLC

1821 Ashton Ave
Burlingame, CA 94010

PROJECT NORTH

TRUE NORTH

1/16"=1'-0"

0 8 16 32

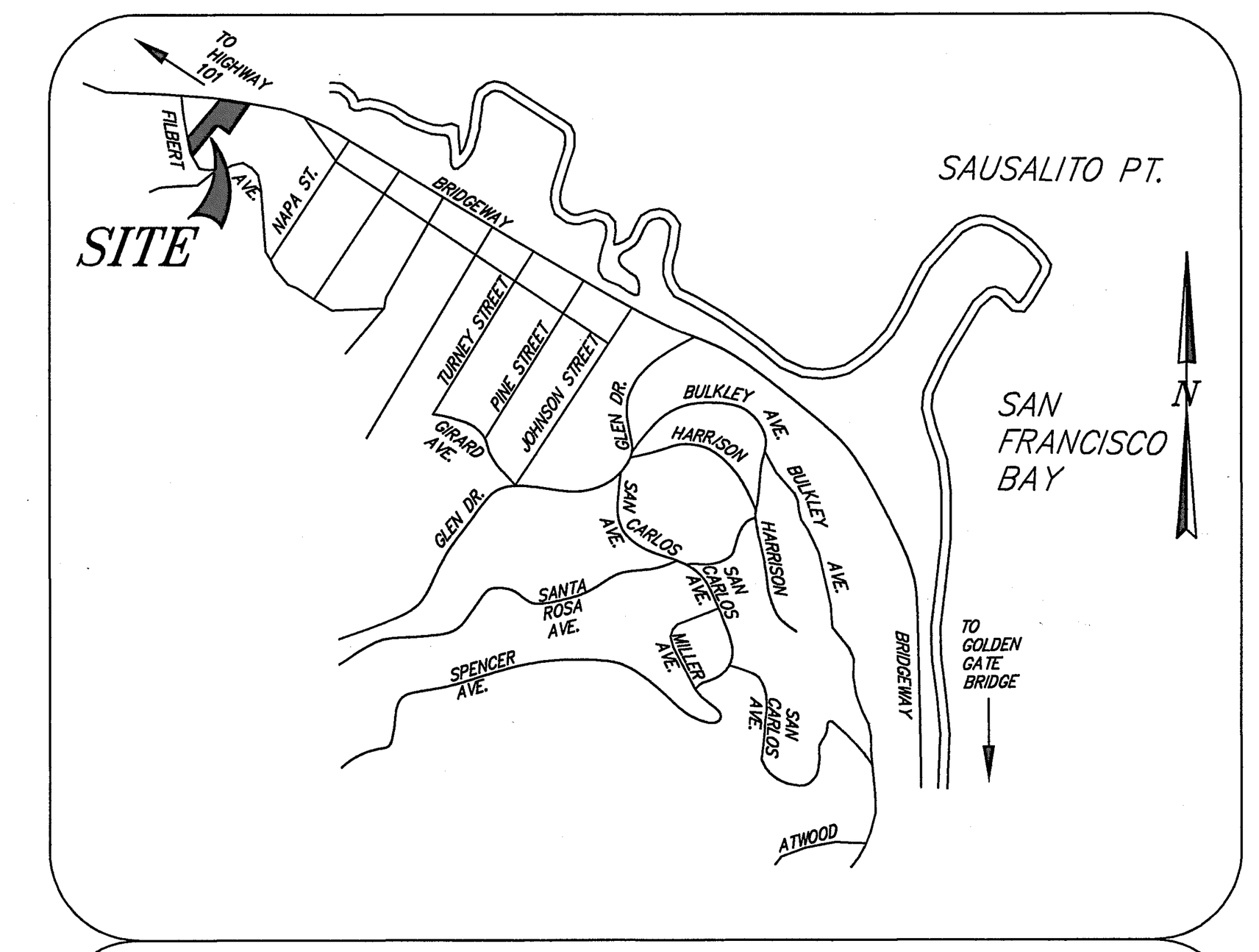
1755 BRIDGEWAY, SAUSALITO, CALIFORNIA

05.04.2022

A0.18

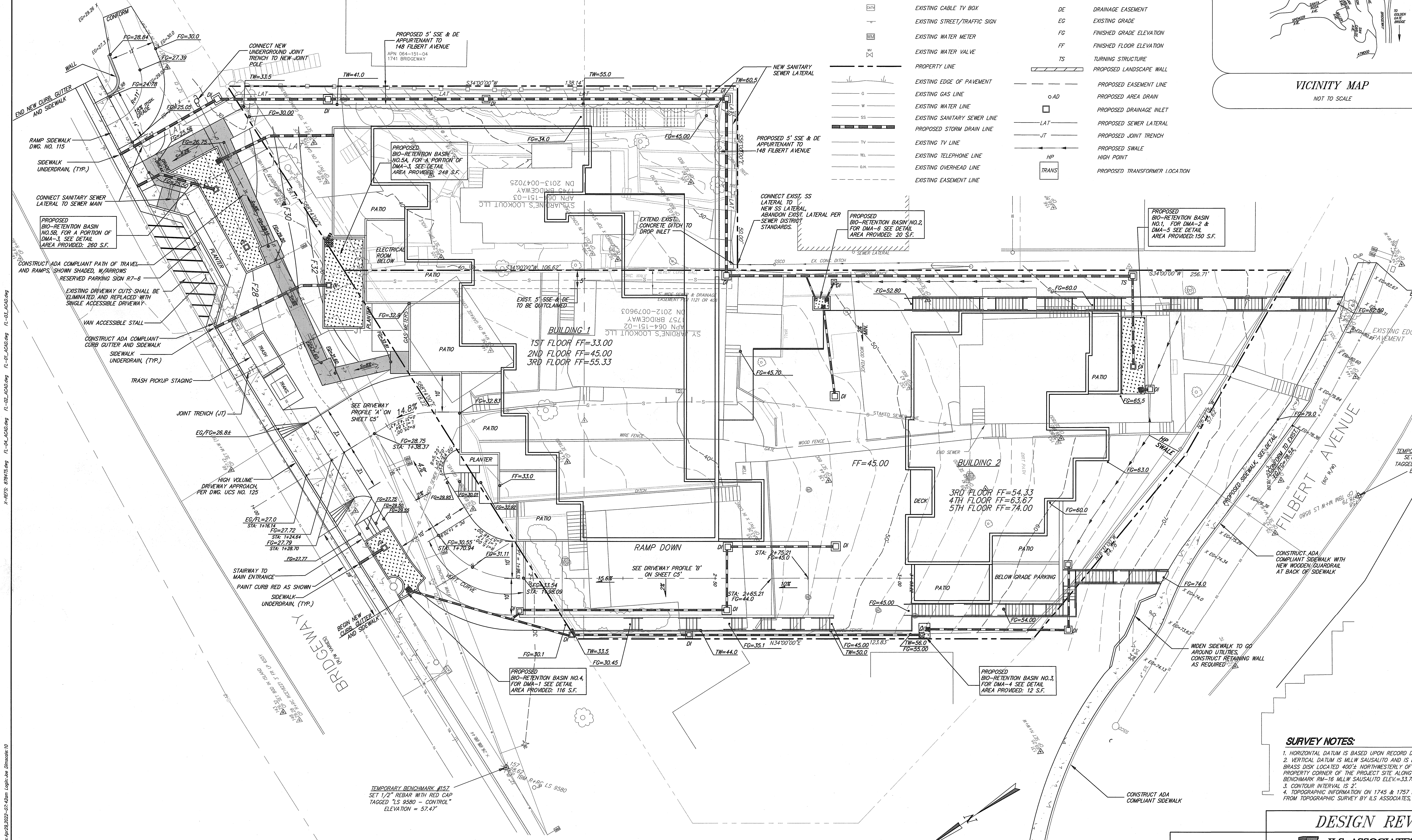
LEGEND:

Symbol	Description	Symbol	Description
△	RANDOM CONTROL FOR SURVEY	110 / 120	EXISTING CONTOURS
	EXISTING FIRE HYDRANT	TW	TOP OF WALL ELEVATION
	EXISTING GUY ANCHOR	FG	FINISHED GRADE ELEVATION
	EXISTING JOINT POLE	TW	TOP OF WALL ELEVATION
o SSCO	SANITARY SEWER CLEANOUT		EXISTING BOUNDARY
(S)	SANITARY SEWER MANHOLE	F58	FINISHED GRADE CONTOUR
G	EXISTING GAS METER	SSE	SANITARY SEWER EASEMENT
CATV	EXISTING CABLE TV BOX	DE	DRAINAGE EASEMENT
	EXISTING STREET/TRAFFIC SIGN	EG	EXISTING GRADE
WM	EXISTING WATER METER	FG	FINISHED GRADE ELEVATION
WV	EXISTING WATER VALVE	FF	FINISHED FLOOR ELEVATION
	PROPERTY LINE	TS	TURNING STRUCTURE
	EXISTING EDGE OF PAVEMENT		PROPOSED LANDSCAPE WALL
G	EXISTING GAS LINE		PROPOSED EASEMENT LINE
W	EXISTING WATER LINE	o AD	PROPOSED AREA DRAIN
SS	EXISTING SANITARY SEWER LINE	□	PROPOSED DRAINAGE INLET
	PROPOSED STORM DRAIN LINE	LAT	PROPOSED SEWER LATERAL
TV	EXISTING TV LINE	JT	PROPOSED JOINT TRENCH
TEL	EXISTING TELEPHONE LINE		PROPOSED SWALE
O.H.	EXISTING OVERHEAD LINE	HP	HIGH POINT
	EXISTING EASEMENT LINE	TRANS	PROPOSED TRANSFORMER LOCATION



VICINITY MAP

NOT TO SCALE



PROPOSED 5' SSE & DE APPURTENANT TO 148 FILBERT AVENUE
APN 064-151-04
1741 BRIDGEWAY
CONNECT NEW UNDERGROUND JOINT TRENCH TO NEW JOINT POLE
NEW SANITARY SEWER LATERAL
PROPOSED 5' SSE & DE APPURTENANT TO 148 FILBERT AVENUE
END NEW CURB, GUTTER AND SIDEWALK
RAMP SIDEWALK DWG. NO. 115
SIDEWALK UNDERDRAIN, (TYP.)
CONNECT SANITARY SEWER LATERAL TO SEWER MAIN
PROPOSED BIO-RETENTION BASIN NO.5B, FOR A PORTION OF DMA-3, SEE DETAIL AREA PROVIDED: 260 S.F.
PROPOSED BIO-RETENTION BASIN NO.5A, FOR A PORTION OF DMA-3, SEE DETAIL AREA PROVIDED: 248 S.F.
CONSTRUCT ADA COMPLIANT PATH OF TRAVEL AND RAMPS, SHOWN SHADED, W/ARROWS
RESERVED PARKING SIGN R7-6
EXISTING DRIVEWAY CUTS SHALL BE ELIMINATED AND REPLACED WITH SINGLE ACCESSIBLE DRIVEWAY
VAN ACCESSIBLE STALL
CONSTRUCT ADA COMPLIANT CURB GUTTER AND SIDEWALK
SIDEWALK UNDERDRAIN, (TYP.)
TRASH PICKUP STAGING
JOINT TRENCH (JT)
HIGH VOLUME DRIVEWAY APPROACH, PER DWG. UCS NO. 125
STAIRWAY TO MAIN ENTRANCE
PAINT CURB RED AS SHOWN
SIDEWALK UNDERDRAIN, (TYP.)
BEGIN NEW CURB, GUTTER AND SIDEWALK
BRIDGEWAY
EXTEND EXIST. CONCRETE DITCH TO DROP INLET
CONNECT EXIST. SS LATERAL TO NEW SS LATERAL, ABANDON EXIST. LATERAL PER SEWER DISTRICT STANDARDS.
PROPOSED BIO-RETENTION BASIN NO.2, FOR DMA-6 SEE DETAIL AREA PROVIDED: 20 S.F.
PROPOSED BIO-RETENTION BASIN NO.1, FOR DMA-2 & DMA-5 SEE DETAIL AREA PROVIDED: 150 S.F.
EXIST. 5' SSE & DE TO BE QUITCLAIMED
BUILDING 1
1ST FLOOR FF=33.00
2ND FLOOR FF=45.00
3RD FLOOR FF=55.33
SY JARDINE'S LOOKOUT LLC
APN 064-151-02
1757 BRIDGEWAY
DN 2012-0079603
APN 064-151-03
1745 BRIDGEWAY
DN 2013-0047025
SEE DRIVEWAY PROFILE 'A' ON SHEET C5
SEE DRIVEWAY PROFILE 'B' ON SHEET C5
RAMP DOWN
BUILDING 2
3RD FLOOR FF=54.33
4TH FLOOR FF=63.67
5TH FLOOR FF=74.00
FF=45.00
BELOW GRADE PARKING
PATIO
PLANTER
DECK
ELECTRICAL ROOM BELOW
HP SWALE
FILBERT AVENUE
TEMPORARY BENCHMARK #158
SET MAGNAIL + WASHER TAGGED "LS 9580 - CONTROL"
ELEVATION = 78.79'
CONFORM EG/FG=80.30±
EXISTING EDGE OF PAVEMENT
CONSTRUCT ADA COMPLIANT SIDEWALK WITH NEW WOODEN GUARDRAIL AT BACK OF SIDEWALK
WIDEN SIDEWALK TO GO AROUND UTILITIES, CONSTRUCT RETAINING WALL AS REQUIRED
PROPOSED BIO-RETENTION BASIN NO.4, FOR DMA-1 SEE DETAIL AREA PROVIDED: 116 S.F.
PROPOSED BIO-RETENTION BASIN NO.3, FOR DMA-4 SEE DETAIL AREA PROVIDED: 12 S.F.
CONSTRUCT ADA COMPLIANT SIDEWALK
CONFORM TO EXISTING SIDEWALK
TEMPORARY BENCHMARK #157
SET 1/2" REBAR WITH RED CAP TAGGED "LS 9580 - CONTROL"
ELEVATION = 57.47'

SURVEY NOTES:

1. HORIZONTAL DATUM IS BASED UPON RECORD DATA AND 2014 RS 114.
2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK LOCATED 400'± NORTHWESTERLY OF THE MOST NORTHERLY PROPERTY CORNER OF THE PROJECT SITE ALONG BRIDGEWAY, BEING BENCHMARK RM-16 MLLW SAUSALITO ELEV.=33.76.
3. CONTOUR INTERVAL IS 2'.
4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.

BRIDGEWAY ON-STREET PARKING INFO:

	ON-STREET PARKING CURRENT CONDITION	ON-STREET PARKING PROPOSED CONDITION
NO. OF SPACES	4-SPACES	2-SPACES

EARTHWORK QUANTITIES:

5,200 CY CUT
110 CY FILL

OFF-SITE STORM DRAIN FLOW NOTE:

THE RATE OF FLOW OF OFF-SITE STORM DRAIN RUNOFF DURING A 100-YEAR STORM EVENT SHALL BE EQUAL TO OR LESS THAN PRE-DEVELOPMENT OFF-SITE STORM DRAIN RATE OF FLOW DURING A 100-YEAR STORM EVENT.

SANITARY SEWER NOTE:

EXISTING ON-SITE SANITARY SEWER LATERALS SHALL BE ABANDONED AND NEW SANITARY SEWER LATERALS SHALL BE CONNECTED TO THE CITY MAIN PER THE REQUIREMENTS OF THE CALIFORNIA PLUMBING CODE AND CITY OF SAUSALITO STANDARD REQUIREMENTS.

GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

A.P.N.: 064-151-03
FIELD BOOK NO.: ###

8784DR10.dwg

REGISTERED PROFESSIONAL ENGINEER ARTHUR J. SMITH C67386 EXP. 12-31-22 CIVIL STATE OF CALIFORNIA

Arthur J.Smith, C.E.
R.C.E. 67386

DESIGN REVIEW

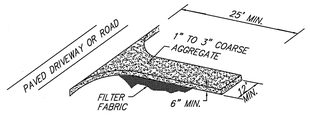
ILS ASSOCIATES, INC.©
CIVIL ENGINEERING AND LAND SURVEYING
79 GALLI DRIVE, SUITE A NOVATO, CA 94949-5717 (415)883-9200 FAX (415)883-2763

BRIDGEWAY APARTMENTS

1755 BRIDGEWAY
SAUSALITO CALIFORNIA

DRAWN:	DATE:	JOB NO.	SHEET NO.
AJS/MM	5-4-2022	8784	C1

GRADING AND DRAINAGE PLAN

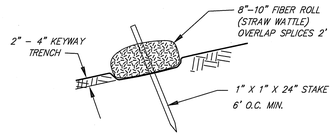


DETAIL ESC-1
TEMPORARY STABILIZED CONSTRUCTION ACCESS

NOT TO SCALE

LEGEND:

TEMPORARY FIBER ROLL

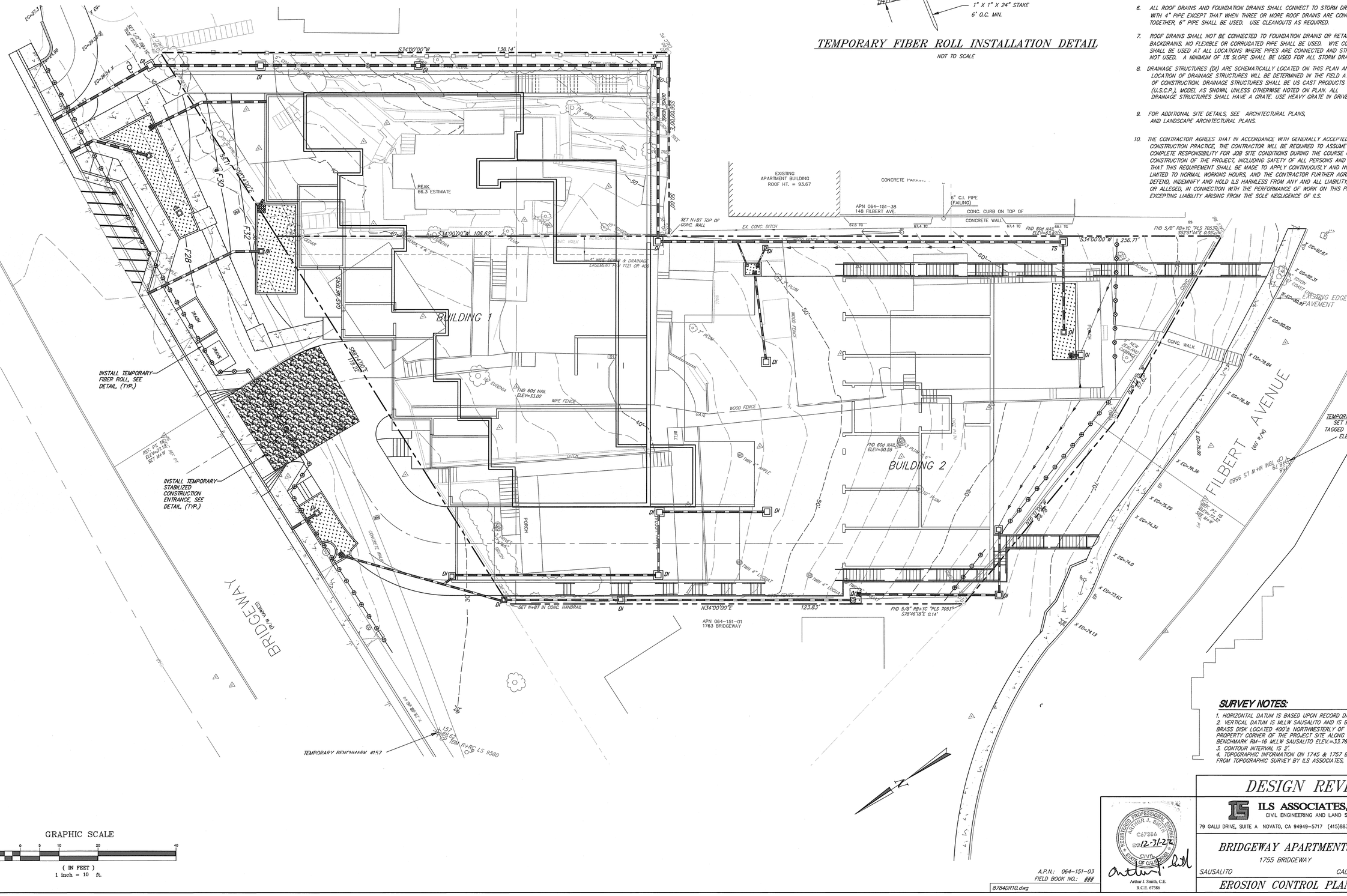


TEMPORARY FIBER ROLL INSTALLATION DETAIL

NOT TO SCALE

NOTES:

1. ALL MATERIALS AND WORKMANSHIP FOR SITE WORK SHALL CONFORM WITH THESE PLANS, THE CURRENT STANDARD SPECIFICATIONS, CITIES AND COUNTY OF MARIN, AND THE MAY 2008 UNIFORM CONSTRUCTION STANDARDS. DRAWING NUMBERS (DWG. NO.) REFER TO THE UNIFORM CONSTRUCTION STANDARDS.
2. EXISTING ON-SITE SANITARY SEWER LATERALS SHALL BE ABANDONED AND NEW SANITARY SEWER LATERALS SHALL BE CONNECTED TO THE EXISTING MAIN PER THE REQUIREMENTS OF THE CALIFORNIA PLUMBING CODE AND SAUSALITO – MARIN CITY SANITARY DISTRICT REQUIREMENTS.
3. NEW UTILITY SERVICE LATERALS WILL BE REQUIRED TO BE UNDERGROUNDED.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. ALL GRADED OR OTHERWISE DISTURBED AREAS WHICH ARE NOT TO BE EITHER LAND-SCAPED OR PAVED SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL FOLLOWING COMPLETION OF GRADING. USE SEED MIX SPECIFIED IN THE STANDARD SPECIFICATIONS.
6. ALL ROOF DRAINS AND FOUNDATION DRAINS SHALL CONNECT TO STORM DRAIN SYSTEM WITH 4" PIPE EXCEPT THAT WHEN THREE OR MORE ROOF DRAINS ARE CONNECTED TOGETHER, 6" PIPE SHALL BE USED. USE CLEANOUTS AS REQUIRED.
7. ROOF DRAINS SHALL NOT BE CONNECTED TO FOUNDATION DRAINS OR RETAINING WALL BACKDRAINS. NO FLEXIBLE OR CORRUGATED PIPE SHALL BE USED. WYE CONNECTIONS SHALL BE USED AT ALL LOCATIONS WHERE PIPES ARE CONNECTED AND STRUCTURES ARE NOT USED. A MINIMUM OF 1% SLOPE SHALL BE USED FOR ALL STORM DRAIN PIPES.
8. DRAINAGE STRUCTURES (DI) ARE SCHEMATICALLY LOCATED ON THIS PLAN AND THE ACTUAL LOCATION OF DRAINAGE STRUCTURES WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION. DRAINAGE STRUCTURES SHALL BE US CAST PRODUCTS (U.S.C.P.), MODEL AS SHOWN, UNLESS OTHERWISE NOTED ON PLAN. ALL DRAINAGE STRUCTURES SHALL HAVE A GRATE. USE HEAVY GRATE IN DRIVEWAY AREA.
9. FOR ADDITIONAL SITE DETAILS, SEE ARCHITECTURAL PLANS, AND LANDSCAPE ARCHITECTURAL PLANS.
10. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICE, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD ILS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF ILS.



SURVEY NOTES:

1. HORIZONTAL DATUM IS BASED UPON RECORD DATA AND 2014 RS 114.
2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK LOCATED 400'± NORTHWESTERLY OF THE MOST NORTHERLY PROPERTY CORNER OF THE PROJECT SITE ALONG BRIDGEWAY, BEING BENCHMARK RM-16 MLLW SAUSALITO ELEV.=33.76.
3. CONTOUR INTERVAL IS 2'.
4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

DESIGN REVIEW

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REGISTERED PROFESSIONAL ENGINEER ARTHUR J. SMITH C67386 CIVIL STATE OF CALIFORNIA
12-31-22
Arthur J. Smith, C.E.
R.C.E. 67386

BRIDGEWAY APARTMENTS
1755 BRIDGEWAY
SAUSALITO CALIFORNIA

EROSION CONTROL PLAN

DRAWN: AJS/MM
DATE: 5-4-2022
JOB NO. 8784
SHEET NO. C2

A.P.N.: 064-151-03
FIELD BOOK NO.: ###

8784DR10.dwg

LEGEND:

- EXISTING TREES
- EXISTING TREES TO BE REMOVED
- 19 — TREE NUMBER PER ARBORIST REPORT
- 18 (H) — TREE DESIGNATED AS HERITAGE PER ARBORIST REPORT

S34°20'00"W 138.14'

S56°00'00"E 50.00'

S34°00'00"W 256.71'

S34°00'00"E 106.62'

S56°14'00"E 118.22'

N34°00'00"E 123.83'

BUILDING 1

BUILDING 2

DENSE HEDGE

WOOD FENCE

WIRE FENCE

CHAIN LINK FENCE

EX. CONC. DITCH

DITCH

CONCRETE WALK

GAS METERS

TRASH

GATE

5' WIDE CURB & DRAINAGE EASEMENT PER 1121 OR 405

EXISTING EDGE OF PAVEMENT

BRIDGEWAY (64' R/W)

FILBERT AVENUE (60' R/W)

TEMPORARY BENCHMARK #157
SET 1/2" REBAR WITH RED CAP
TAGGED "LS 9580 – CONTROL"
ELEVATION = 57.47'

TEMPORARY BENCHMARK #158
SET MAGNAIL + WASHER
TAGGED "LS 9580 – CONTROL"
ELEVATION = 78.79'

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

SURVEY NOTES:

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2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK LOCATED 400'± NORTHWESTERLY OF THE MOST NORTHERLY PROPERTY CORNER OF THE PROJECT SITE ALONG BRIDGEWAY, BEING BENCHMARK RM-16 MLLW SAUSALITO ELEV.=33.76.
3. CONTOUR INTERVAL IS 2'.
4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.

A.P.N.: 064-151-03
FIELD BOOK NO.: ###
87840R10.dwg

REGISTERED PROFESSIONAL ENGINEER ARTHUR J. SMITH C67386 EXP. 12-31-22 CIVIL STATE OF CALIFORNIA

Arthur J. Smith, C.E.
R.C.E. 67386

DESIGN REVIEW

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BRIDGEWAY APARTMENTS

1755 BRIDGEWAY
SAUSALITO CALIFORNIA

TREE REMOVAL PLAN

DRAWN:	AJS/MM
DATE:	5-4-2022
JOB NO.	8784
SHEET NO.	C3

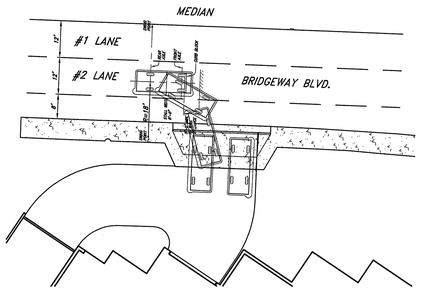
LEGEND:

△	RANDOM CONTROL FOR SURVEY
	EXISTING FIRE HYDRANT
	EXISTING GUY ANCHOR
	EXISTING JOINT POLE
○ SSCO	SANITARY SEWER CLEANOUT
Ⓢ	SANITARY SEWER MANHOLE
G	EXISTING GAS METER
CATV	EXISTING CABLE TV BOX
	EXISTING STREET/TRAFFIC SIGN
WM	EXISTING WATER METER
WV	EXISTING WATER VALVE

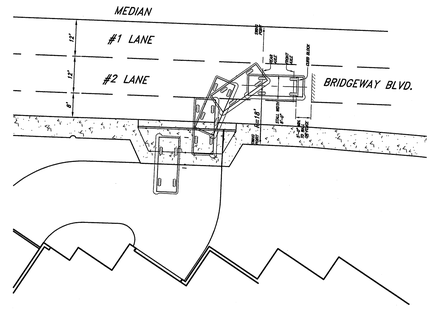
110 / 120	EXISTING CONTOURS
TW	TOP OF WALL ELEVATION
FG	FINISHED GRADE ELEVATION
TW	TOP OF WALL ELEVATION
	EXISTING BOUNDARY
F58	FINISHED GRADE CONTOUR
SSE	SANITARY SEWER EASEMENT
DE	DRAINAGE EASEMENT
EG	EXISTING GRADE
FG	FINISHED GRADE ELEVATION
FF	FINISHED FLOOR ELEVATION

	PROPERTY LINE
	EXISTING EDGE OF PAVEMENT
G	EXISTING GAS LINE
W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
	PROPOSED STORM DRAIN LINE
TV	EXISTING TV LINE
TEL	EXISTING TELEPHONE LINE
O.H.	EXISTING OVERHEAD LINE
	EXISTING EASEMENT LINE

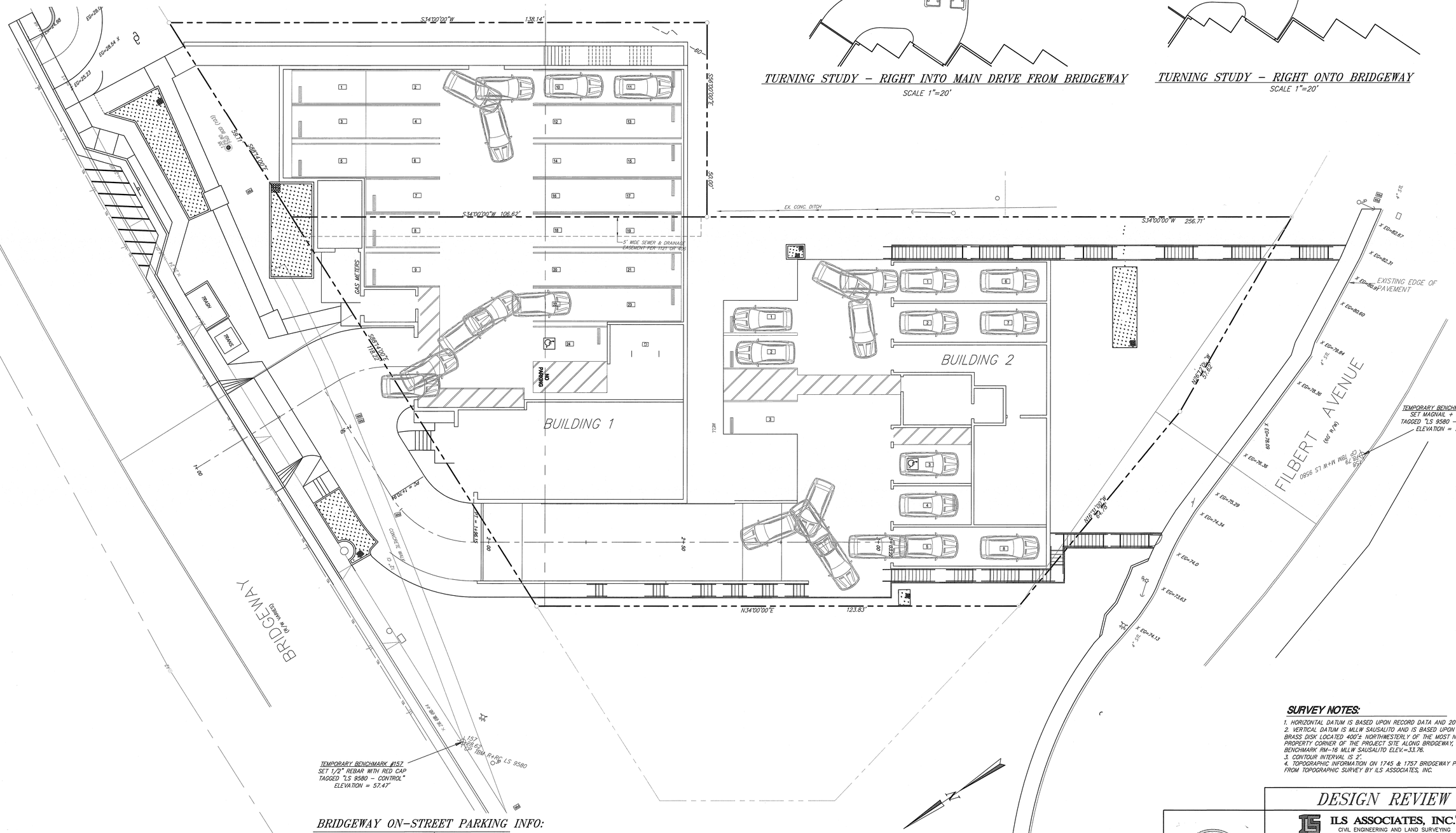
	PROPOSED LANDSCAPE WALL
	PROPOSED EASEMENT LINE
○ AD	PROPOSED AREA DRAIN
□	PROPOSED DRAINAGE INLET
LAT	PROPOSED SEWER LATERAL
JT	PROPOSED JOINT TRENCH
	PROPOSED SWALE
HP	HIGH POINT
TRANS	PROPOSED TRANSFORMER LOCATION
R	PROPOSED RECYCLING BIN
C	PROPOSED COMPOSTING BIN
L	PROPOSED LANDFILL BIN



TURNING STUDY – RIGHT INTO MAIN DRIVE FROM BRIDGEWAY
SCALE 1"=20'



TURNING STUDY – RIGHT ONTO BRIDGEWAY
SCALE 1"=20'



BRIDGEWAY ON-STREET PARKING INFO:

	ON-STREET PARKING CURRENT CONDITION	ON-STREET PARKING PROPOSED CONDITION
NO. OF SPACES	4-SPACES	2-SPACES

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

SURVEY NOTES:
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3. CONTOUR INTERVAL IS 2'.
4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.

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Arthur J. Smith, C.E.
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BRIDGEWAY APARTMENTS
1755 BRIDGEWAY
SAUSALITO CALIFORNIA

TURNING STUDY PLAN

DRAWN: AJS/MM
DATE: 5-4-2022
JOB NO. 8784
SHEET NO. C4

A.P.N.: 064-151-03
FIELD BOOK NO.: ###
8784DR10.dwg

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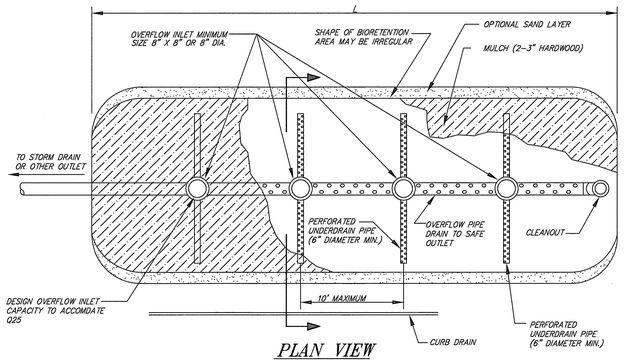
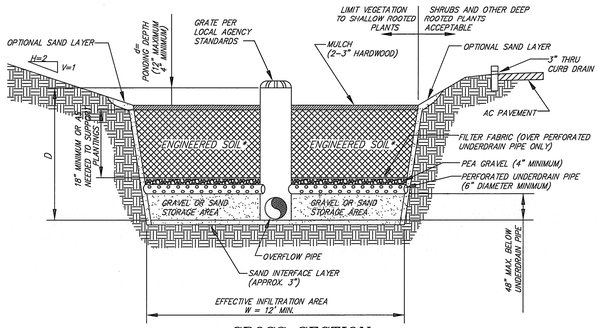
9. FOR ADDITIONAL SITE DETAILS, SEE ARCHITECTURAL PLANS, AND LANDSCAPE ARCHITECTURAL PLANS.
10. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICE, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD ILS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF ILS.

EROSION AND SEDIMENT CONTROL NOTES:

1. TEMPORARY INLET PROTECTION OF EXISTING DRAINAGE INLETS, CONSTRUCTION LIMITS FENCING AND TREE PROTECTION MEASURES WHERE SHOWN ON THE PLANS SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION.
2. OTHER TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES SHALL BE INSTALLED/IMPLEMENTED AS SHOWN ON THE PLANS AND PRIOR TO SOIL DISTURBANCE ON ANY AFFECTED AREA OF THE SITE.
3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES MAY INCLUDE SURFACING, PAVING, LANDSCAPING, SEEDING AND MULCHING, WOOD CHIPS AND ROCK SLOPE PROTECTION AS SHOWN ON THE PLANS.
4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAY BE REMOVED FOLLOWING IMPLEMENTATION OF PERMANENT EROSION AND SEDIMENT CONTROL MEASURES.
5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, CONSTRUCTION LIMIT FENCING AND TREE PROTECTION MEASURES SHALL BE REMOVED BY COMPLETION OF CONSTRUCTION AND INSTALLATION AND/OR ESTABLISHMENT OF PERMANENT EROSION AND SEDIMENT CONTROL MEASURES.
6. WHERE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED, ALL PROVISIONS OF THAT PLAN SHALL BE IMPLEMENTED.
7. THE LOCATION OF ALL EROSION AND SEDIMENT CONTROL FEATURES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
8. DURING THE COURSE OF CONSTRUCTION, THE SITE SHALL BE INSPECTED BY THE CONTRACTOR AS NECESSARY DURING THE WINTER MONTHS AND AFTER EACH MAJOR RAINFALL. AFTER EACH MAJOR RAINFALL ANY ACCUMULATED SILT SHALL BE REMOVED WHERE NECESSARY AND ANY DAMAGED EROSION AND SEDIMENT CONTROL FEATURES SHALL BE REPAIRED.
9. STOCKPILES OF SOIL, SAND OR OTHER ERODABLE MATERIAL SHALL BE COVERED WITH WEIGHTED-DOWN TARPS OR PLASTIC SHEETING AND ENCLOSED IN A ROW OF FIBER ROLLS WHENEVER RAIN IS OCCURING OR PREDICTED.
10. WHERE DEEMED NECESSARY BY THE ENGINEER IN THE FIELD OTHER EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED.
11. EROSION AND SEDIMENT CONTROL FEATURES MAY BE TEMPORARILY REMOVED TO GAIN ACCESS TO CONSTRUCTION AREAS. THEY SHALL, HOWEVER, BE REPLACED AT THE END OF EACH WORKING DAY WHEN RAIN IS OCCURRING OR PREDICTED AND AT THE END OF THE WORK DAY EACH FRIDAY.
12. ALL GRADED OR OTHERWISE DISTURBED AREAS SHALL BE EITHER HYDRO-SEEDED OR SEEDED AND MULCHED FOLLOWING COMPLETION OF GRADING BUT, IN ANY EVENT, PRIOR TO OCTOBER 15. DEPENDING ON THE STATUS OF THE WORK ON OCTOBER 15, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED. FOR AREAS TO BE HYDRO-SEEDED OR SEEDED AND MULCHED, USE SEED MIX SPECIFIED IN THE STANDARD SPECIFICATIONS.



PLAN VIEW
N.T.S.



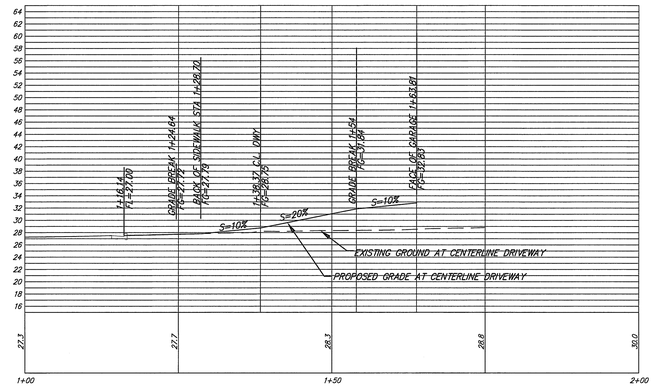
CROSS SECTION
N.T.S.

NOTES

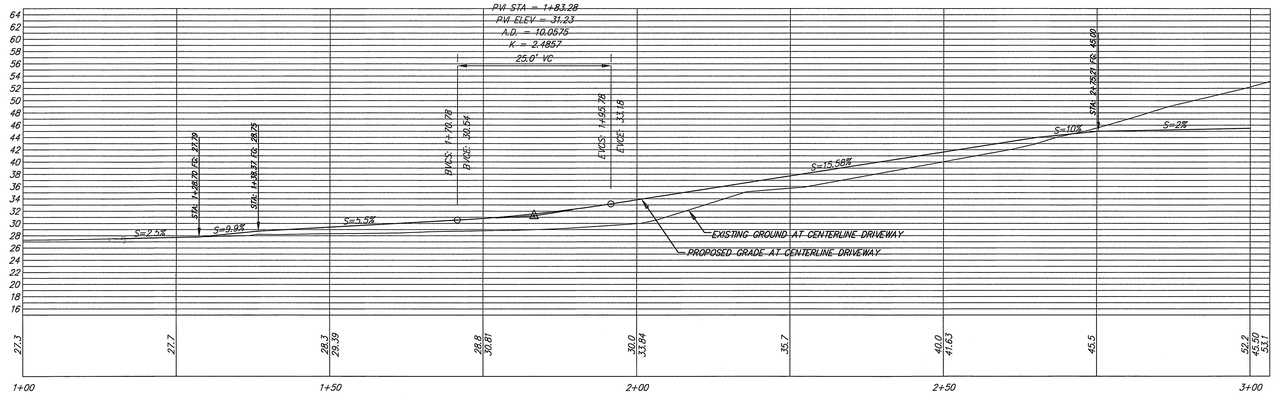
1. ALL PERFORATED PIPE SHALL HAVE A MINIMUM OF THREE 3/4" DIAMETER HOLES, EQUALLY SPACED ALONG THE CIRCUMFERANCE OF THE PIPE AND NOT LESS THAN THREE HOLES PER LINED FOOT OF PIPE.
2. DETERMINE DIMENSIONS FROM L x W x D = INFILTRATION DESIGN VOLUME.

* SANDY LOAM/LOAMY SAND: FINES SHOULD BE LIMITED TO TWENTY PERCENT OR LESS PASSING THROUGH A #200 SIEVE.

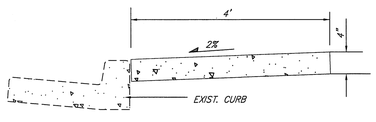
BIO-RETENTION DETAIL
NOT TO SCALE



DRIVEWAY PROFILE 'A'
SCALE: 1"=10' HOR./VERT.
SEE DWG. NO. 140 FOR ADDITIONAL INFORMATION

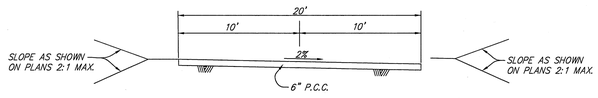


DRIVEWAY PROFILE 'B'
SCALE: 1"=10' HOR./VERT.
SEE DWG. NO. 140 FOR ADDITIONAL INFORMATION

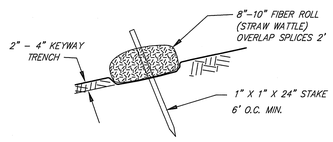


TYPE "B" SIDEWALK DETAIL
NOT TO SCALE

1. SEE DWG. NO. 100 & 105 FOR GENERAL REQUIREMENTS



DRIVEWAY SECTION
NOT TO SCALE



TEMPORARY FIBER ROLL INSTALLATION DETAIL
NOT TO SCALE

A.P.N.: 064-151-03
FIELD BOOK NO.: ###
87840R10.dwg

REGISTERED PROFESSIONAL ENGINEER ARTHUR J. SMITH C67386 EXP 12-31-22 CIVIL STATE OF CALIFORNIA

Arthur J. Smith, C.E.
R.C.E. 67386

DESIGN REVIEW

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BRIDGEWAY APARTMENTS
1755 BRIDGEWAY
SAUSALITO CALIFORNIA

NOTES AND DETAILS

DRAWN:	AJS
DATE:	5-4-2022
JOB NO.	8784
SHEET NO.	C5

N:\PROJECTS\8784\dwg\8784DR10.dwg, 3042-105C-DETAILS C5, 4/29/2022 7:38:10 AM, HP-T2300.pc3, 1:1, ILS Associates, Inc. - JG


LEGEND:
RANDOM CONTROL FOR SURVEY
EXISTING FIRE HYDRANT
EXISTING GUY ANCHOR
EXISTING JOINT POLE
SSCO SANITARY SEWER CLEANOUT
SANITARY SEWER MANHOLE
EXISTING GAS METER
EXISTING CABLE TV BOX
EXISTING STREET/TRAFFIC SIGN
EXISTING WATER METER
EXISTING WATER VALVE
PROPERTY LINE
EXISTING EDGE OF PAVEMENT
EXISTING GAS LINE
EXISTING WATER LINE
EXISTING SANITARY SEWER LINE
PROPOSED STORM DRAIN LINE
EXISTING TV LINE
EXISTING TELEPHONE LINE
EXISTING OVERHEAD LINE
EXISTING EASEMENT LINE
EXISTING CONTOURS
TW TOP OF WALL ELEVATION
FG FINISHED GRADE ELEVATION
TW TOP OF WALL ELEVATION
EXISTING BOUNDARY
F58 FINISHED GRADE CONTOUR
SSE SANITARY SEWER EASEMENT
DE DRAINAGE EASEMENT
EG EXISTING GRADE
FG FINISHED GRADE ELEVATION
FF FINISHED FLOOR ELEVATION
PROPOSED LANDSCAPE WALL
PROPOSED EASEMENT LINE
AD PROPOSED AREA DRAIN
PROPOSED DRAINAGE INLET
LAT PROPOSED SEWER LATERAL
JT PROPOSED JOINT TRENCH
PROPOSED SWALE
HP HIGH POINT
S34°00'00"W 138.14'
S56°00'00"E 50.00'
S88°14'00" 59.11'
S34°00'00"W 106.62'
S34°00'00"W 256.21'
N26°12'00"W 57.62'
N16°31'00"W 64.78'
S88°14'00"E 118.22'
N34°00'00"E 123.83'
RAMP SIDEWALK DWG. NO. 115
SIDEWALK UNDERDRAIN, (TYP.)
PROPOSED BIO-RETENTION BASIN NO.5B, FOR A PORTION OF DMA-3, SEE DETAIL AREA PROVIDED: 260 S.F.
PROPOSED BIO-RETENTION BASIN NO.5A, FOR A PORTION OF DMA-3, SEE DETAIL AREA PROVIDED: 248 S.F.
PROPOSED BIO-RETENTION BASIN NO.2, FOR DMA-6 SEE DETAIL AREA PROVIDED: 20 S.F.
PROPOSED BIO-RETENTION BASIN NO.1, FOR DMA-2 & DMA-5 SEE DETAIL AREA PROVIDED: 150 S.F.
PROPOSED BIO-RETENTION BASIN NO.4, FOR DMA-1 SEE DETAIL AREA PROVIDED: 116 S.F.
PROPOSED BIO-RETENTION BASIN NO.3, FOR DMA-4 SEE DETAIL AREA PROVIDED: 12 S.F.
DMA-7 AREA=4,015 S.F.
DMA-3 AREA=11,227 S.F.
DMA-8 AREA=2,930 S.F.
DMA-6 AREA=4,123 S.F.
DMA-2 AREA=3,028 S.F.
DMA-5 AREA=2,970 S.F.
DMA-1 AREA=2,416 S.F.
DMA-4 AREA=2,322 S.F.
GAS METERS
TRASH
TRANS.
5' WIDE SEWER & DRAINAGE EASEMENT PER 1121 OR 406
SSCO
EX. CONC. DITCH
SEWER LATERAL
WOOD FENCE
WIRE FENCE
GATE
DITCH
END SEWER
STAKED SEWER LINE
CONCRETE WALK
HP SWALE
EXISTING EDGE OF PAVEMENT
BRIDGEWAY (R/W VARIES)
FILBERT AVENUE (60' R/W)
TEMPORARY BENCHMARK #158
SET MAGNAIL + WASHER
TAGGED "LS 9580 - CONTROL"
ELEVATION = 78.79'
TEMPORARY BENCHMARK #157
SET 1/2" REBAR WITH RED CAP
TAGGED "LS 9580 - CONTROL"
ELEVATION = 57.47'
GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.

DRAINAGE MANAGEMENT AREA TABLE

DMA NO.	AREA	MULTIPLIER	DMA FACTOR	BIO-FILTRATION REQUIRED	BIO-FILTRATION AREA NO.	BIO-FILTRATION PROVIDED
DMA-1	2,416 S.F.	1	0.04	97 S.F.	NO. 4	116 S.F.
DMA-2	3,028 S.F.	1	0.04	121 S.F.	NO. 1	135 S.F.
DMA-3	11,227 S.F.	1	0.04	449 S.F.	NO. 5A & 5B	508 S.F.
DMA-4	2,322 S.F.	0.1	0.04	9 S.F.	NO. 3	12 S.F.
DMA-5	2,970 S.F.	0.1	0.04	12 S.F.	NO. 1	15 S.F.
DMA-6	4,123 S.F.	0.1	0.04	17 S.F.	NO. 2	20 S.F.
DMA-7	4,015 S.F.	0.1	0.04	16 S.F.	SELF TREATING	0 S.F.
DMA-8	2,930 S.F.	1	0.04	117 S.F	FLOWS OUT DWY.	0 S.F.

OFF-SITE STORM DRAIN FLOW NOTE:

THE RATE OF FLOW OF OFF-SITE STORM DRAIN RUNOFF DURING A 100-YEAR STORM EVENT SHALL BE EQUAL TO OR LESS THAN PRE-DEVELOPMENT OFF-SITE STORM DRAIN RATE OF FLOW DURING A 100-YEAR STORM EVENT.

SURVEY NOTES:

1. HORIZONTAL DATUM IS BASED UPON RECORD DATA AND 2014 RS 114.
2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK LOCATED 400'± NORTHWESTERLY OF THE MOST NORTHERLY PROPERTY CORNER OF THE PROJECT SITE ALONG BRIDGEWAY, BEING BENCHMARK RM-16 MLLW SAUSALITO ELEV.=33.76.
3. CONTOUR INTERVAL IS 2'.
4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.

A.P.N.: 064-151-03
FIELD BOOK NO.: ###
8784DR10.dwg

REGISTERED PROFESSIONAL ENGINEER ARTHUR J. SMITH C67386 EXP. 12-31-22 CIVIL STATE OF CALIFORNIA
Arthur J. Smith, C.E.
R.C.E. 67386

DESIGN REVIEW

ILS ASSOCIATES, INC.©
CIVIL ENGINEERING AND LAND SURVEYING
79 GALLI DRIVE, SUITE A NOVATO, CA 94949-5717 (415)883-9200 FAX (415)883-2763

BRIDGEWAY APARTMENTS
1755 BRIDGEWAY
SAUSALITO CALIFORNIA

DRAWN: AJS/MM
DATE: 5-4-2022
JOB NO. 8784
SHEET NO. C6

DRAINAGE MANAGEMENT AREA PLAN

X-REFS: 8784TS.dwg FL-04_ACAD.dwg FL-02_ACAD.dwg FL-01_ACAD.dwg FL-03_ACAD.dwg
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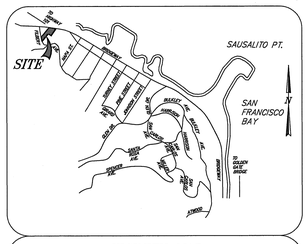

VICINITY MAP
NOT TO SCALE

STORY POLES TABLE				
STORY POLE NUMBER	ROOF / TOP OF POLE ELEVATION		NATURAL GROUND	BUILDING HEIGHT AT POLE
SP1	87'-6"	87.5'	55.13'	*32.37'*
SP2	87'-6"	87.5'	54.51'	*32.99'*
SP3	87'-6"	87.5'	51.95'	*35.55'*
SP4	88'-4"	88.33'	50.00'	*38.33'*
SP5	88'-4"	88.33'	49.84'	*38.49'*
SP6	88'-4"	88.33'	50.83'	*37.50'*
SP7	88'-4"	88.33'	52.16'	*36.17'*
SP8	57'-11"	57.92'	53.57'	*4.35'*
SP9	57'-11"	57.92'	59.44'	*–1.52'*
SP10	88'-4"	88.33'	58.20'	*30.13'*
SP11	88'-4"	88.33'	57.15'	*31.18'*
SP12	87'-6"	87.5'	60.68'	*26.82'*
SP13	87'-6"	87.5'	59.82'	*27.68'*
SP14	87'-6"	87.5'	61.72'	*25.78'*
SP15	88'-4"	88.33'	60.72'	*27.61'*
SP16	88'-4"	88.33'	62.23'	*26.10'*
SP17	88'-4"	88.33'	61.78'	*26.55'*
SP18	87'-6"	87.5'	60.66'	*26.84'*
SP19	87'-6"	87.5'	60.84'	*26.66'*
SP20	87'-6"	87.5'	60.56'	*26.94'*

STORY POLES TABLE				
STORY POLE NUMBER	ROOF / TOP OF POLE ELEVATION		NATURAL GROUND	BUILDING HEIGHT AT POLE
SP21	45'-0"	45.0'	40.43'	*4.57'*
SP22	45'-0"	45.0'	30.67'	*14.33'*
SP23	45'-0"	45.0'	36.80'	*8.20'*
SP24	45'-0"	45.0'	33.50'	*11.50'*
SP25	45'-0"	45.0'	34.88'	*10.12'*
SP26	45'-0"	45.0'	31.13'	*13.87'*
SP27	45'-0"	45.0'	32.54'	*12.46'*
SP28	45'-0"	45.0'	30.98'	*14.02'*
SP29	45'-0"	45.0'	32.50'	*12.50'*
SP30	45'-0"	45.0'	31.18'	*13.82'*
SP31	45'-0"	45.0'	31.99'	*13.01'*
SP32	45'-0"	45.0'	30.33'	*14.67'*
SP33	79'-2"	79.17'	42.88'	*36.29'*
SP34	79'-2"	79.17'	40.21'	*38.96'*
SP35	79'-2"	79.17'	40.02'	*39.15'*
SP36	79'-2"	79.17'	39.25'	*39.92'*
SP37	79'-2"	79.17'	38.63'	*40.54'*
SP38	79'-2"	79.17'	33.94'	*45.23'*
SP39	80'-0"	80.0'	33.94'	*46.06'*
SP40	80'-0'	80.0'	33.20'	*46.80'*

STORY POLES TABLE				
STORY POLE NUMBER	ROOF / TOP OF POLE ELEVATION		NATURAL GROUND	BUILDING HEIGHT AT POLE
SP41	80'–0"	80.0'	33.85'	*46.15'*
SP42	80'–0"	80.0'	33.26'	*46.74'*
SP43	81'–4"	81.33'	34.25'	*47.08'*
SP44	81'–4"	81.33'	33.23'	*48.10'*
SP45	81'–4"	81.33'	33.95'	*47.38'*
SP46	79'–2"	79.17'	33.09'	*46.08'*
SP47	79'–2"	79.17'	42.26'	*36.91'*
SP48	79'–2"	79.17'	42.18'	*36.99'*
SP49	79'–2"	79.17'	37.71'	*41.46'*
SP50	79'–2"	79.17'	46.85'	*32.32'*
SP51	79'–2"	79.17'	44.36'	*34.81'*
SP52	79'–2"	79.17'	48.85'	*30.32'*
SP53	80'–0"	80.0'	49.13'	*30.87'*
SP54	79'–2"	79.17'	49.75'	*29.42'*
SP55	79'–2"	79.17'	54.72'	*24.45'*
SP56	68'–4"	68.33'	29.33'	*39.00'*

S34°00'00"W 138.14'

SP56 power pole

SP21 SP33 SP55 SP54 SP34 SP53 SP52 SP35 SP23 SP22 SP36 SP37 SP51 SP50 SP24 SP25 SP38 SP26 SP27 SP39 SP40 SP41 SP28 SP42 SP43 SP29 SP49 SP48 SP44 SP45 SP31 SP30 SP46 SP47 SP32

S88°14'00"E 59.11'

S34°00'00"W 106.62'

50.00'

S34°00'00"W 256.71'

SP1 SP2 SP3 SP4 SP5 SP6 SP7 SP8 SP9 SP10 SP11 SP12 SP13 SP14 SP15 SP16 SP17 SP18 SP19 SP20

N26°12'00"W 57.62'

N16°31'00"W 64.78'

S34°00'00"E 118.22'

N34°00'00"E 123.83'

BRIDGEWAY (64' R/W)

CONCRETE WALK

FILBERT AVENUE (60' R/W)

TEMPORARY BENCHMARK #157
SET 1/2" REBAR WITH RED CAP
TAGGED "LS 9580 – CONTROL"
ELEVATION = 57.47'

1572 PK TBM R+RC LS 9580

TEMPORARY BENCHMARK #158
SET MAGNAIL + WASHER
TAGGED "LS 9580 – CONTROL"
ELEVATION = 78.79'

1578 PK TBM M+W LS 9580

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

SURVEY NOTES:

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2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK LOCATED 400'± NORTHWESTERLY OF THE MOST NORTHERLY PROPERTY CORNER OF THE PROJECT SITE ALONG BRIDGEWAY, BEING BENCHMARK RM–16 MLLW SAUSALITO ELEV.=33.76.
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A.P.N.: 064–151–03
FIELD BOOK NO.: ###
8784DR10.dwg

REGISTERED PROFESSIONAL ENGINEER ARTHUR J. SMITH C67386 EXP. 12-31-23 CIVIL STATE OF CALIFORNIA

Arthur J. Smith, C.E.
R.C.E. 67386

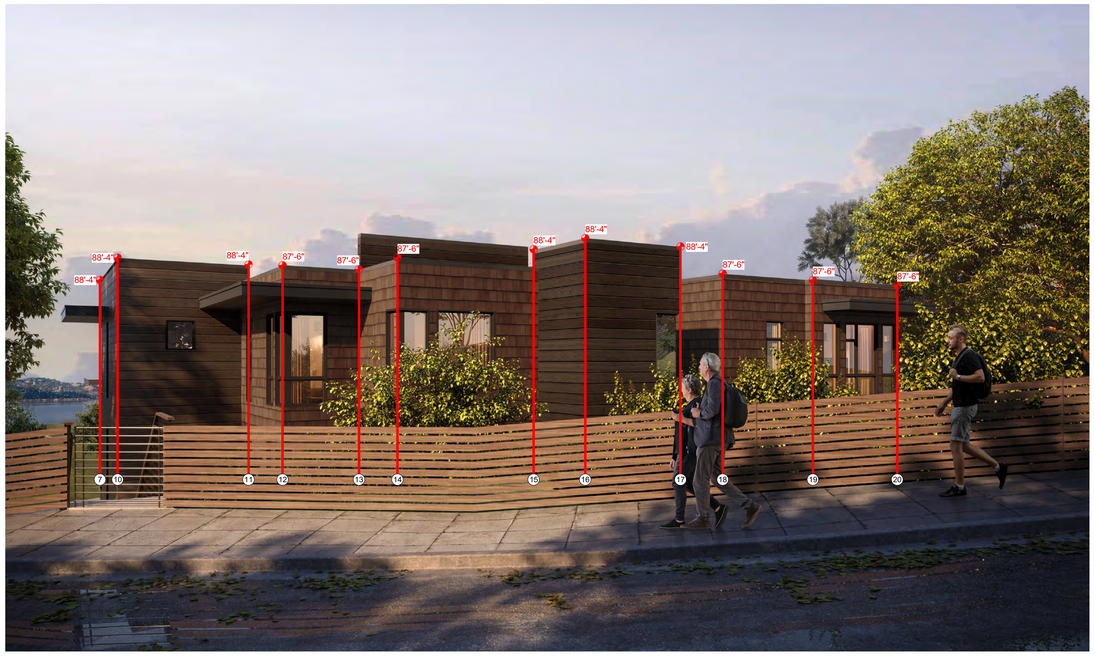
DESIGN REVIEW

ILS ASSOCIATES, INC.®
CIVIL ENGINEERING AND LAND SURVEYING
79 GALLI DRIVE, SUITE A NOVATO, CA 94949–5717 (415)883–9200 FAX (415)883–2763

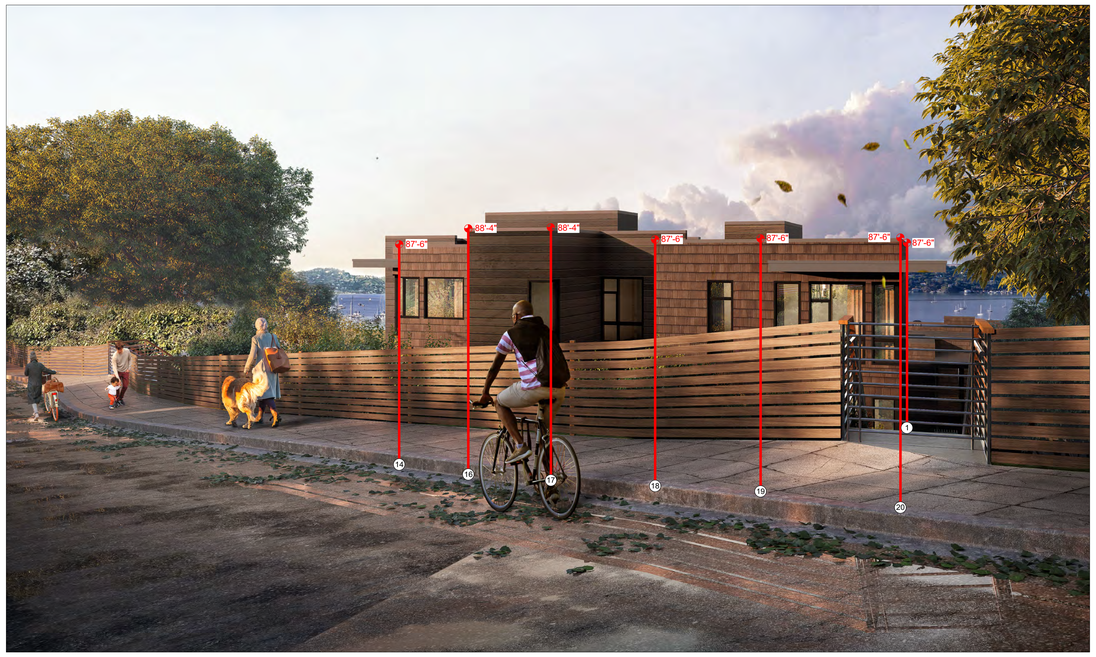
BRIDGEWAY APARTMENTS
1755 BRIDGEWAY
SAUSALITO CALIFORNIA

DRAWN: AJS/MM
DATE: 5–4–2022
JOB NO. 8784
SHEET NO. C7

STORY POLES PLAN



STORY POLE DIAGRAM 2

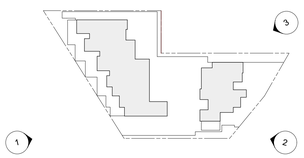


STORY POLE DIAGRAM 3

STORY POLE DIAGRAM 1

KEY PLAN:

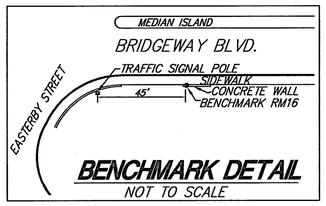
NOTE: SEE SHEET C7 FOR STORY POLE PLAN



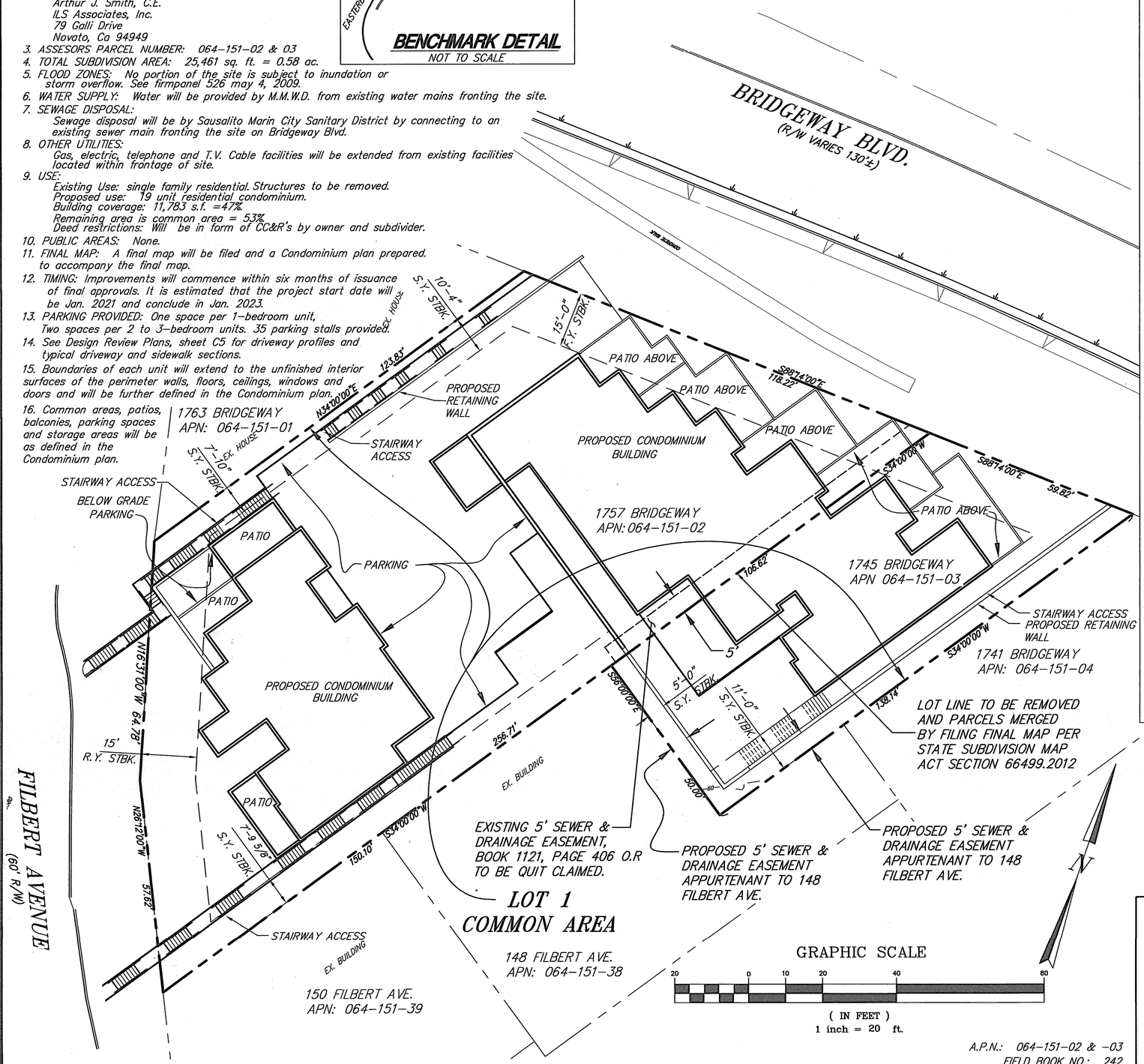
VESTING TENTATIVE MAP

TENTATIVE MAP NOTES:

1. OWNER & SUBDIVIDER:
   Sy Jardines Lookout LLC
   2673 Martinez Blvd.
   Burlingame, CA 94010
2. ENGINEER:
   Arthur J. Smith, C.E.
   ILS Associates, Inc.
   79 Galli Drive
   Novato, Ca 94949
3. ASSESORS PARCEL NUMBER: 064–151–02 & 03
4. TOTAL SUBDIVISION AREA: 25,461 sq. ft. = 0.58 ac.
5. FLOOD ZONES: No portion of the site is subject to inundation or storm overflow. See firmpanel 526 may 4, 2009.
6. WATER SUPPLY: Water will be provided by M.M.W.D. from existing water mains fronting the site.
7. SEWAGE DISPOSAL:
   Sewage disposal will be by Sausalito Marin City Sanitary District by connecting to an existing sewer main fronting the site on Bridgeway Blvd.
8. OTHER UTILITIES:
   Gas, electric, telephone and T.V. Cable facilities will be extended from existing facilities located within frontage of site.
9. USE:
   Existing Use: single family residential. Structures to be removed.
   Proposed use: 19 unit residential condominium.
   Building coverage: 11,783 s.f. =47%.
   Remaining area is common area = 53%.
   Deed restrictions: Will be in form of CC&R's by owner and subdivider.
10. PUBLIC AREAS: None.
11. FINAL MAP: A final map will be filed and a Condominium plan prepared. to accompany the final map.
12. TIMING: Improvements will commence within six months of issuance of final approvals. It is estimated that the project start date will be Jan. 2021 and conclude in Jan. 2023.
13. PARKING PROVIDED: One space per 1–bedroom unit, Two spaces per 2 to 3–bedroom units. 35 parking stalls provided.
14. See Design Review Plans, sheet C5 for driveway profiles and typical driveway and sidewalk sections.
15. Boundaries of each unit will extend to the unfinished interior surfoces of the perimeter walls, floors, ceilings, windows and doors and will be further defined in the Condominium plan.
16. Common areas, patios, balconies, parking spaces and storage areas will be as defined in the Condominium plan.



BENCHMARK DETAIL
NOT TO SCALE



GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

A.P.N.: 064–151–02 & –03
FIELD BOOK NO.: 242
8784VTM8.dwg

SHEET INDEX

SURVEY NOTES:

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2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK, NEAR THE SOUTHWESTERLY CORNER OF BRIDGEWAY AND EASTERBY STREETS; 45' EASTERLY OF THE TRAFFIC SUGNAL POLE; ATOP NORTHWESTERLY END OF A LOW CONCRETE WALL AT THE BACK OF SIDEWALK (SEE DETAIL), BEING BENCHMARK RM–16 MLLW SAUSALITO ELEV.=33.76.
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5. FINAL IMPROVEMENT PLANS WILL BE BASED ON NEW SURVEY PREPARED BY ILS ASSOCIATES, INC.

LICENSED LAND SURVEYOR
ARTHUR JESSE SMITH
L 9580
STATE OF CALIFORNIA

Arthur J. Smith, PLS
L9580

ILS ASSOCIATES, INC.©
CIVIL ENGINEERING AND LAND SURVEYING
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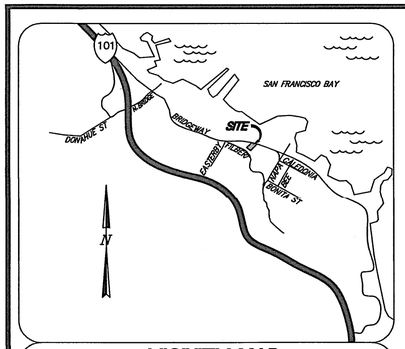
1755 BRIDGEWAY CONDOMINIUM

SAUSALITO CALIFORNIA

LOT MAP & NOTES

DRAWN:	AJS
DATE:	5–4–2022
JOB NO.	8784
SHEET NO.	1

VESTING TENTATIVE MAP



VICINITY MAP
N.T.S.

LEGEND AND ABBREVIATIONS

△	RANDOM CONTROL FOR SURVEY
	EXISTING FIRE HYDRANT
	EXISTING GUY ANCHOR
	EXISTING JOINT POLE
SSCO	SANITARY SEWER CLEANOUT
Ⓢ	SANITARY SEWER MANHOLE
G	EXISTING GAS METER
CATV	EXISTING CABLE TV BOX
	EXISTING STREET/TRAFFIC SIGN
WM	EXISTING WATER METER
WV	EXISTING WATER VALVE
	PROPERTY LINE
	EXISTING EDGE OF PAVEMENT
G	EXISTING GAS LINE
W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
	PROPOSED STORM DRAIN LINE
TV	EXISTING TV LINE
TEL	EXISTING TELEPHONE LINE
O.H.	EXISTING OVERHEAD LINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	PROPOSED DRAINAGE INLET
LAT	PROPOSED SEWER LATERAL
JT	PROPOSED JOINT TRENCH
W	PROPOSED WATER LINE
TBM	TEMPORARY BENCHMARK
F.Y.	FRONT YARD
S.Y.	SIDE YARD
R.Y.	REAR YARD
AD	PROPOSED AREA DRAIN
STBK.	SETBACK

SURVEY NOTES:

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GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

A.P.N.: 064-151-02 & -03
FIELD BOOK NO.: 242

8784VTM8.dwg

LICENSED LAND SURVEYOR
ARTHUR JESSE SMITH
L 9580
STATE OF CALIFORNIA

Arthur J. Smith, P.L.S.
L9580

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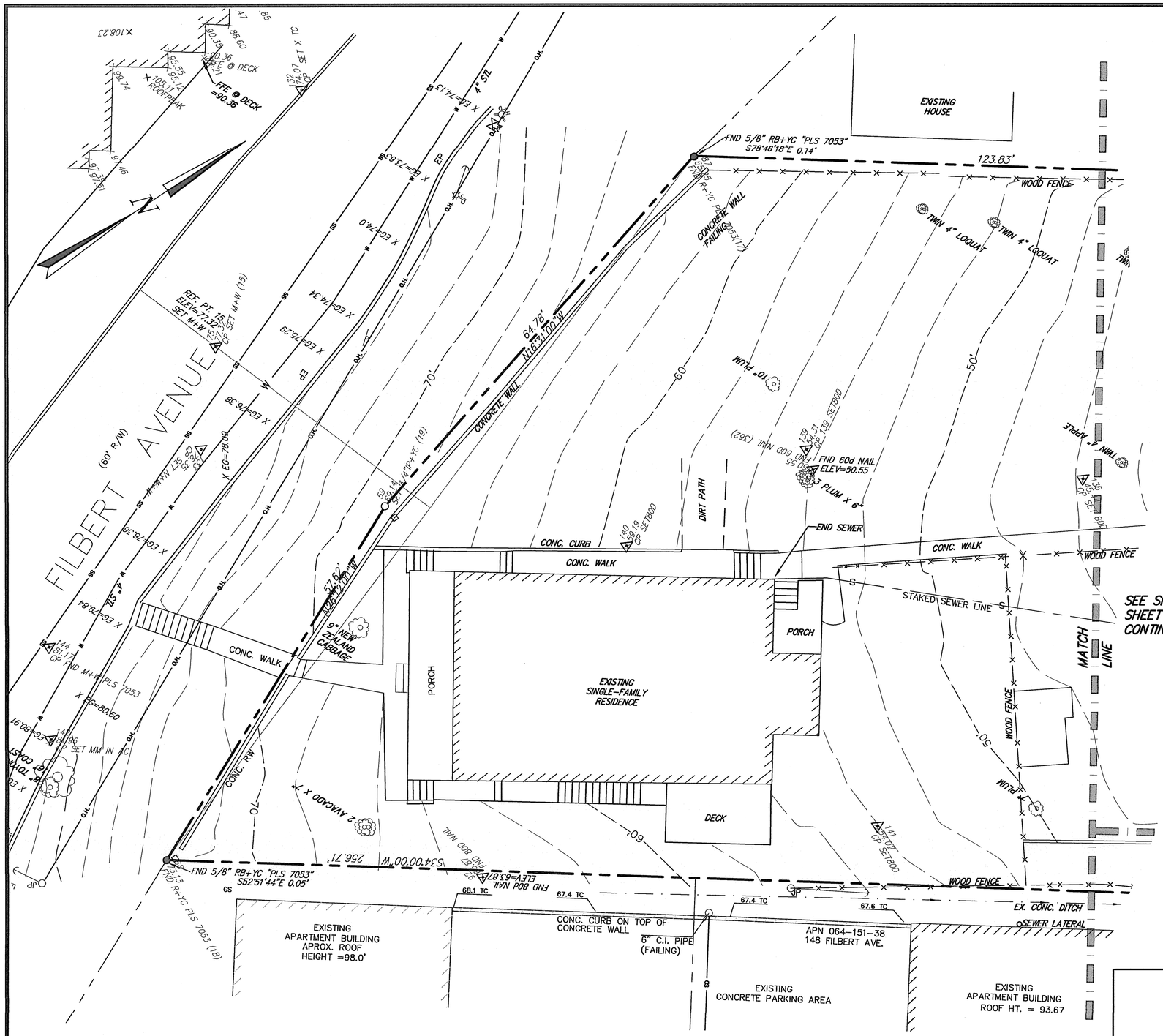
1755 BRIDGEWAY CONDOMINIUM

SAUSALITO CALIFORNIA

SITE & UTILITY PLAN

DRAWN:	AJS
DATE:	5-4-2022
JOB NO.	8784
SHEET NO.	2



LEGEND AND ABBREVIATIONS

△	RANDOM CONTROL FOR SURVEY
	EXISTING FIRE HYDRANT
→	EXISTING GUY ANCHOR
	EXISTING JOINT POLE
o SSCO	SANITARY SEWER CLEANOUT
Ⓢ	SANITARY SEWER MANHOLE
G	EXISTING GAS METER
CATV	EXISTING CABLE TV BOX
	EXISTING STREET/TRAFFIC SIGN
WM	EXISTING WATER METER
WV	EXISTING WATER VALVE
	PROPERTY LINE
	EXISTING EDGE OF PAVEMENT
G	EXISTING GAS LINE
W	EXISTING WATER LINE
SS	EXISTING SANITARY SEWER LINE
	PROPOSED STORM DRAIN LINE
TV	EXISTING TV LINE
TEL	EXISTING TELEPHONE LINE
O.H.	EXISTING OVERHEAD LINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
o AD	PROPOSED AREA DRAIN
	PROPOSED DRAINAGE INLET
LAT	PROPOSED SEWER LATERAL
JT	PROPOSED JOINT TRENCH
W	PROPOSED WATER LINE

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GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

A.P.N.: 064-151-02 & -03
FIELD BOOK NO.: 242

8784T6.dwg

VESTING TENTATIVE MAP

LICENSED LAND SURVEYOR
ARTHUR JESSE SMITH
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STATE OF CALIFORNIA

Arthur J. Smith, P.L.S.
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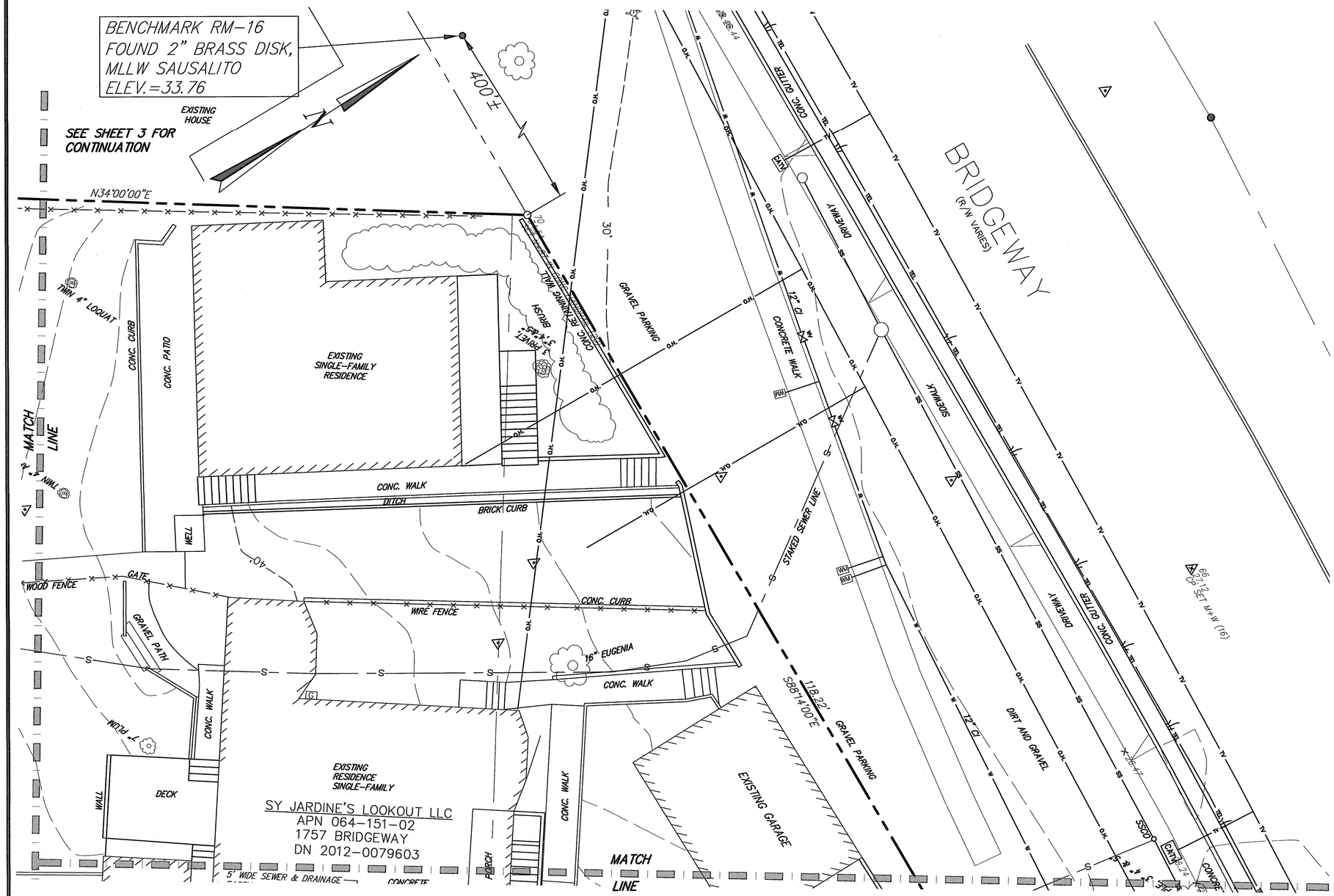
1755 BRIDGEWAY
CONDOMINIUM
SAUSALITO CALIFORNIA

EXISTING TOPOGRAPHIC MAP

DRAWN: AJS
DATE: 5-4-2022
JOB NO. 8784
SHEET NO. 3



LEGEND AND ABBREVIATIONS

- RANDOM CONTROL FOR SURVEY
- EXISTING FIRE HYDRANT
- EXISTING GUY ANCHOR
- EXISTING JOINT POLE
- SSCO — SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- G — EXISTING GAS METER
- CATV — EXISTING CABLE TV BOX
- EXISTING STREET/TRAFFIC SIGN
- WM — EXISTING WATER METER
- WV — EXISTING WATER VALVE
- PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- SS — EXISTING SANITARY SEWER LINE
- PROPOSED STORM DRAIN LINE
- TV — EXISTING TV LINE
- TEL — EXISTING TELEPHONE LINE
- O.H. — EXISTING OVERHEAD LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- AD — PROPOSED AREA DRAIN
- PROPOSED DRAINAGE INLET
- LAT — PROPOSED SEWER LATERAL
- JT — PROPOSED JOINT TRENCH
- W — PROPOSED WATER LINE

AREA NOTE:

THE TOTAL COMBINED AREA OF BOTH PARCELS SHOWN IS 25,461± SQUARE FEET.

SURVEY NOTES:

1. HORIZONTAL DATUM IS BASED UPON RECORD DATA AND 2014 RS 114.
2. VERTICAL DATUM IS MLLW SAUSALITO AND IS BASED UPON FOUND 2" BRASS DISK, NEAR THE SOUTHWESTERLY CORNER OF BRIDGEWAY AND EASTERBY STREETS; 45' EASTERLY OF THE TRAFFIC SUGNAL POLE; ATOP NORTHWESTERLY END OF A LOW CONCRETE WALL AT THE BACK OF SIDEWALK (SEE DETAIL), BEING BENCHMARK RM–16 MLLW SAUSALITO ELEV.=33.76.
3. CONTOUR INTERVAL IS 2'.
4. TOPOGRAPHIC INFORMATION ON 1745 & 1757 BRIDGEWAY PARCELS IS FROM TOPOGRAPHIC SURVEY BY ILS ASSOCIATES, INC.
5. FINAL IMPROVEMENT PLANS WILL BE BASED ON NEW SURVEY PREPARED BY ILS ASSOCIATES, INC.

VESTING TENTATIVE MAP

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

A.P.N.: 064–151–02 & –03
FIELD BOOK NO.: 242
8784T6.dwg

LICENSED LAND SURVEYOR
ARTHUR JESSE SMITH
L 9580
STATE OF CALIFORNIA

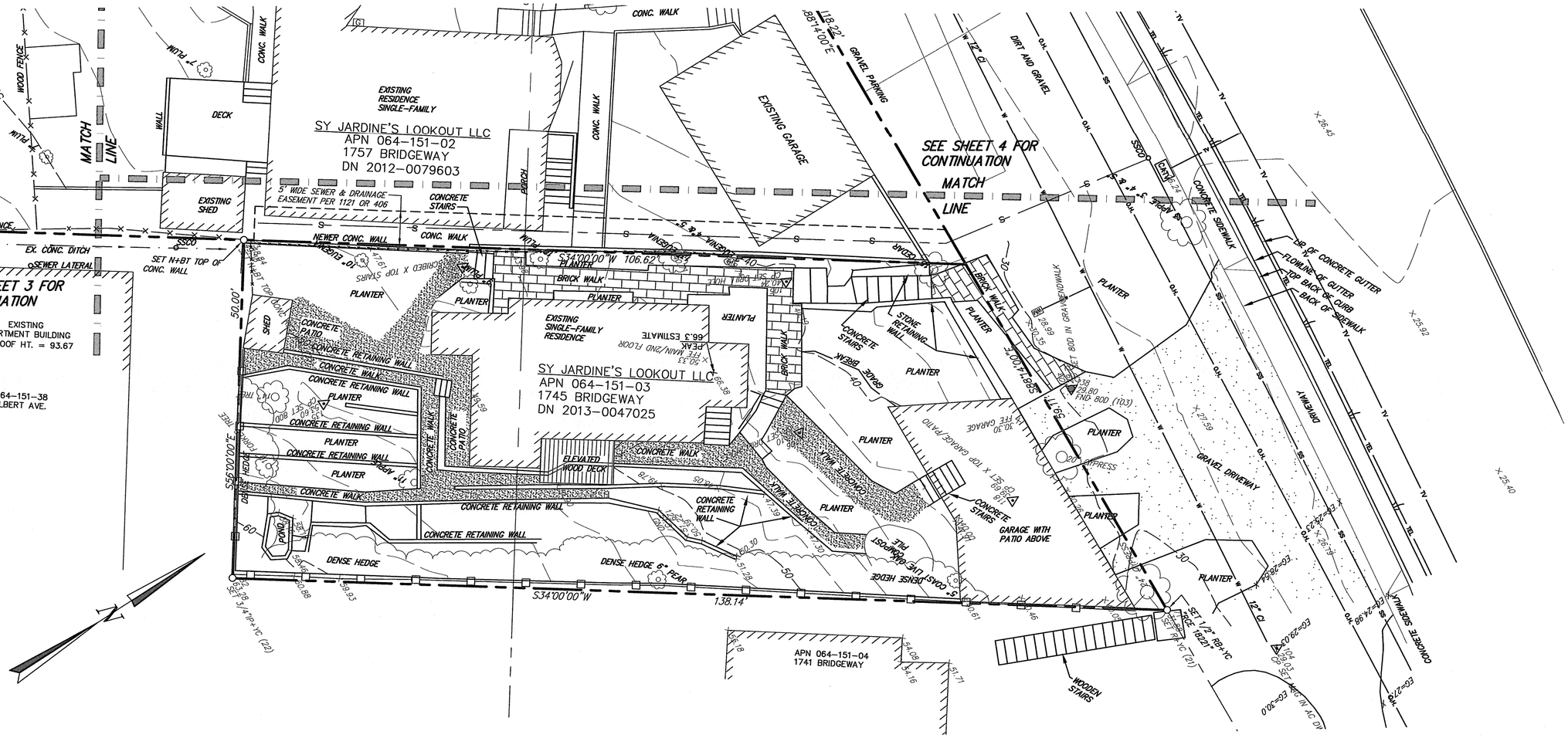
Arthur J. Smith, P.L.S.
L9580

ILS ASSOCIATES, INC.©
CIVIL ENGINEERING AND LAND SURVEYING
79 GALLI DRIVE, SUITE A NOVATO, CA 94949–5717 (415)883–9200 FAX (415)883–2763

1755 BRIDGEWAY
CONDOMINIUM
SAUSALITO CALIFORNIA

EXISTING TOPOGRAPHIC MAP

DRAWN:	AJS
DATE:	5–4–2022
JOB NO.	8784
SHEET NO.	4



LEGEND AND ABBREVIATIONS

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A.P.N.: 064-151-02 & -03
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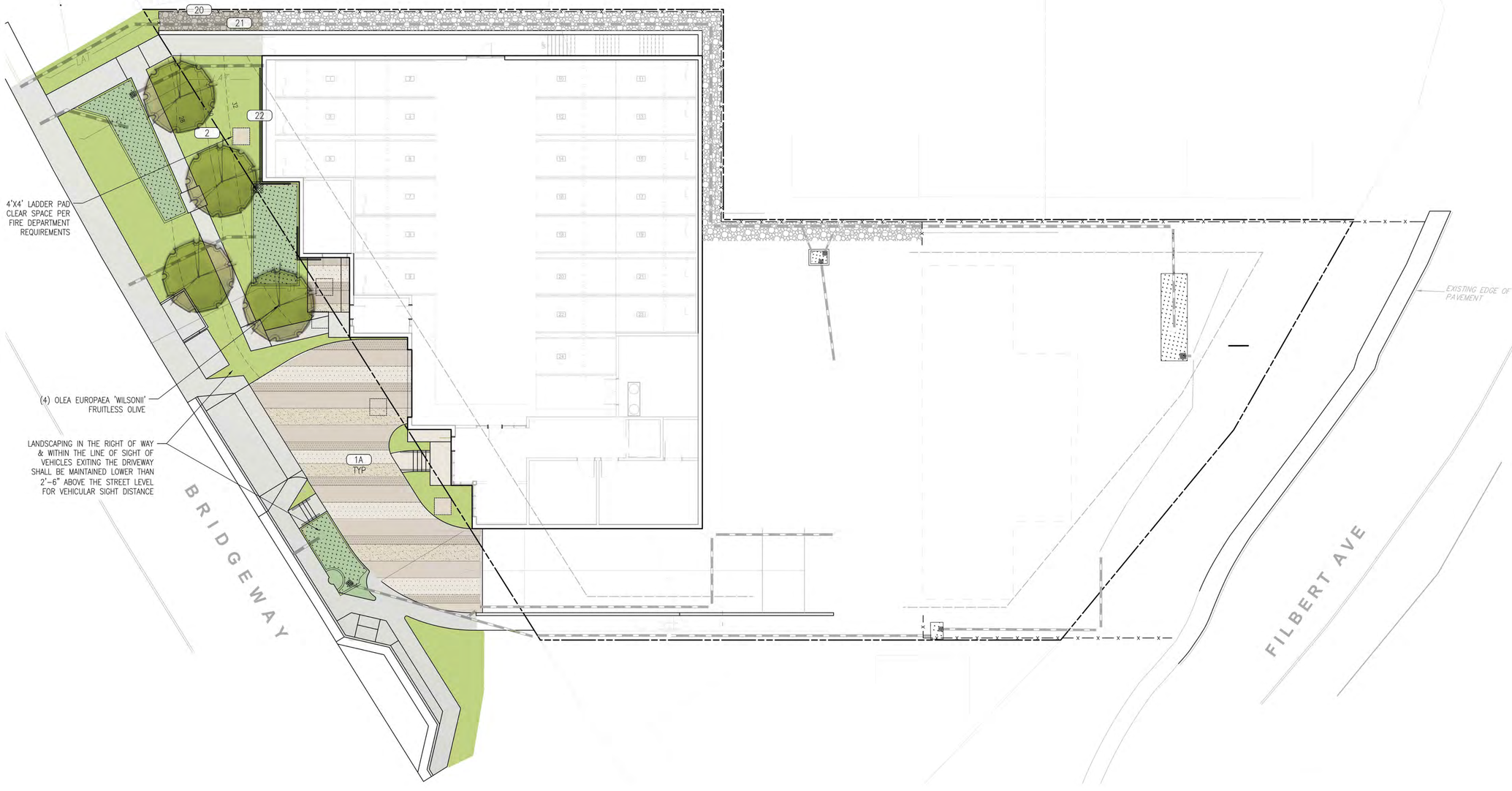
1755 BRIDGEWAY
CONDOMINIUM
SAUSALITO CALIFORNIA

EXISTING TOPOGRAPHIC MAP

DRAWN:	AJS
DATE:	5-4-2022
JOB NO.	8784
SHEET NO.	5



SYMBOLS LEGEND

DECORATIVE CONCRETE PAVING	1A
PAVERS – GRAVEL SET	1B
PLANTED MOUND	2
PRECAST PLANTER, TYPICAL	3
CANTILEVER WOOD BENCH	4
CANTILEVER ARBOR	5
RAISED PLANTER	6
42" HEIGHT WOOD & STEEL GUARDRAIL	7
DECORATIVE METAL FENCE	8
ARBOR WITH VINES	9
RETAINING WALL W/DECORATIVE FINISH	10
FIREPIT	11
BENCH	12
SCONCE LIGHT – SEE PHOTOMETRIC PLAN	14
SCONCE LIGHT – SEE PHOTOMETRIC PLAN	15
BOLLARD LIGHT – SEE PHOTOMETRIC PLAN	16
COMMUNITY TABLE	17
SCREEN PLANTING	18
LOUNGE CHAIR	19
LADDER PAD	
5' HEIGHT STEEL & WOOD PROPERTY LINE FENCE (SHOWN OFFSET FOR GRAPHIC CLARITY)	20
DECORATIVE GRAVEL, TYPICAL	21
VINES ON CABLE SYSTEM	22

N

0 5' 10' 20' 32'

SCALE: 3/32" = 1'-0"

3DE ARCHITECTURE

JETT LANDSCAPE ARCHITECTURE + DESIGN
CALA #3335 · 2 Theatre Square #218 · Orinda CA 94563
925.254.5422 · www.jett.land

SY JARDINES LOOKOUT, LLC
1821 Ashton Ave
Burlingame, CA 94010

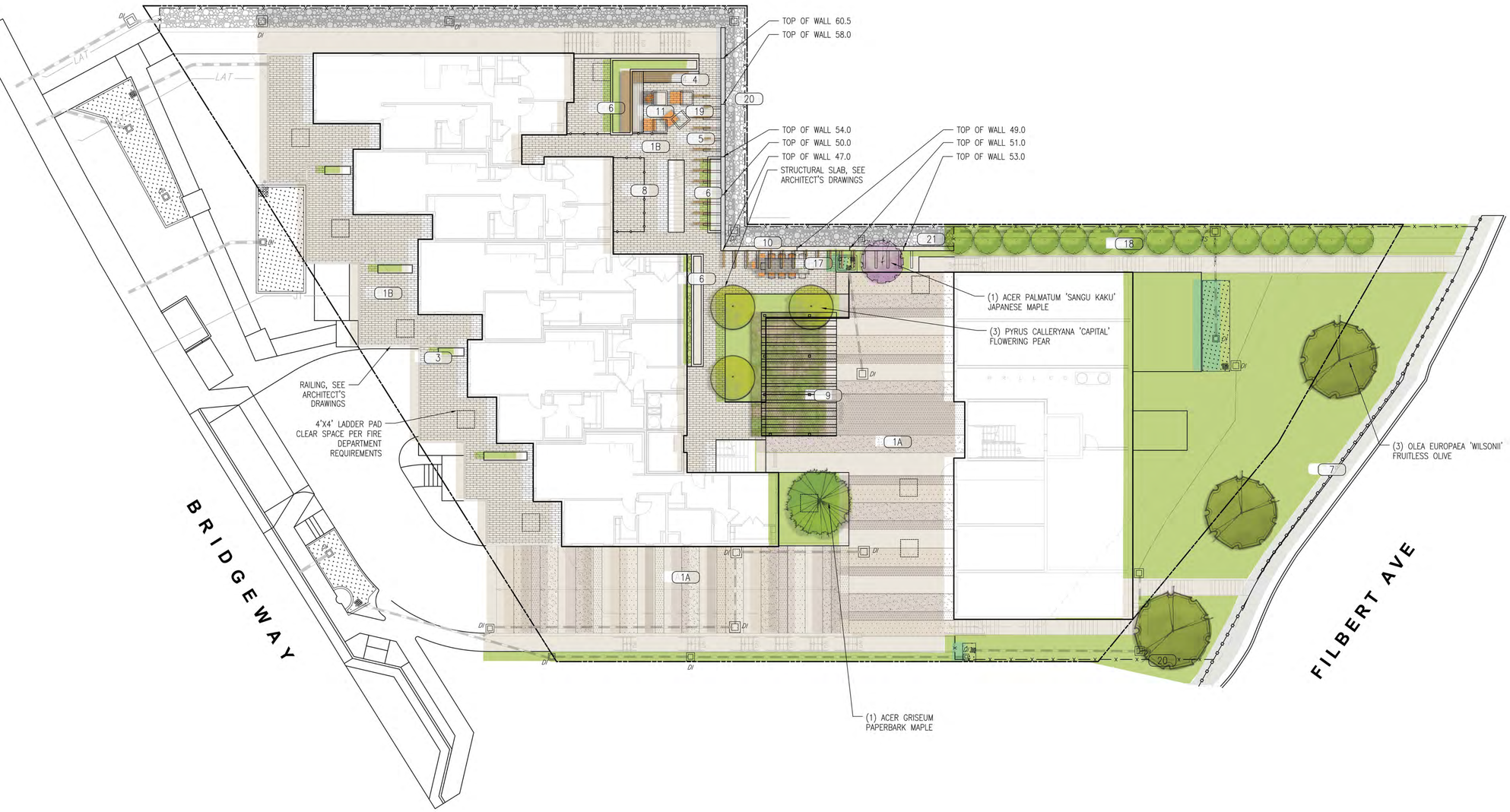
PROJECTNORTH
TRUE NORTH

PRELIMINARY LANDSCAPE PLAN - GROUND FLOOR

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA

05.04.2022

L1.1



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VINES ON CABLE SYSTEM	22

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BDE ARCHITECTURE

JETT LANDSCAPE ARCHITECTURE + DESIGN
CRLA #3335 · 2 Theatre Square #218 · Orinda CA · 94563
925.254.5422 · www.jett.land

SY JARDINES LOOKOUT, LLC
1821 Ashton Ave
Burlingame, CA 94010

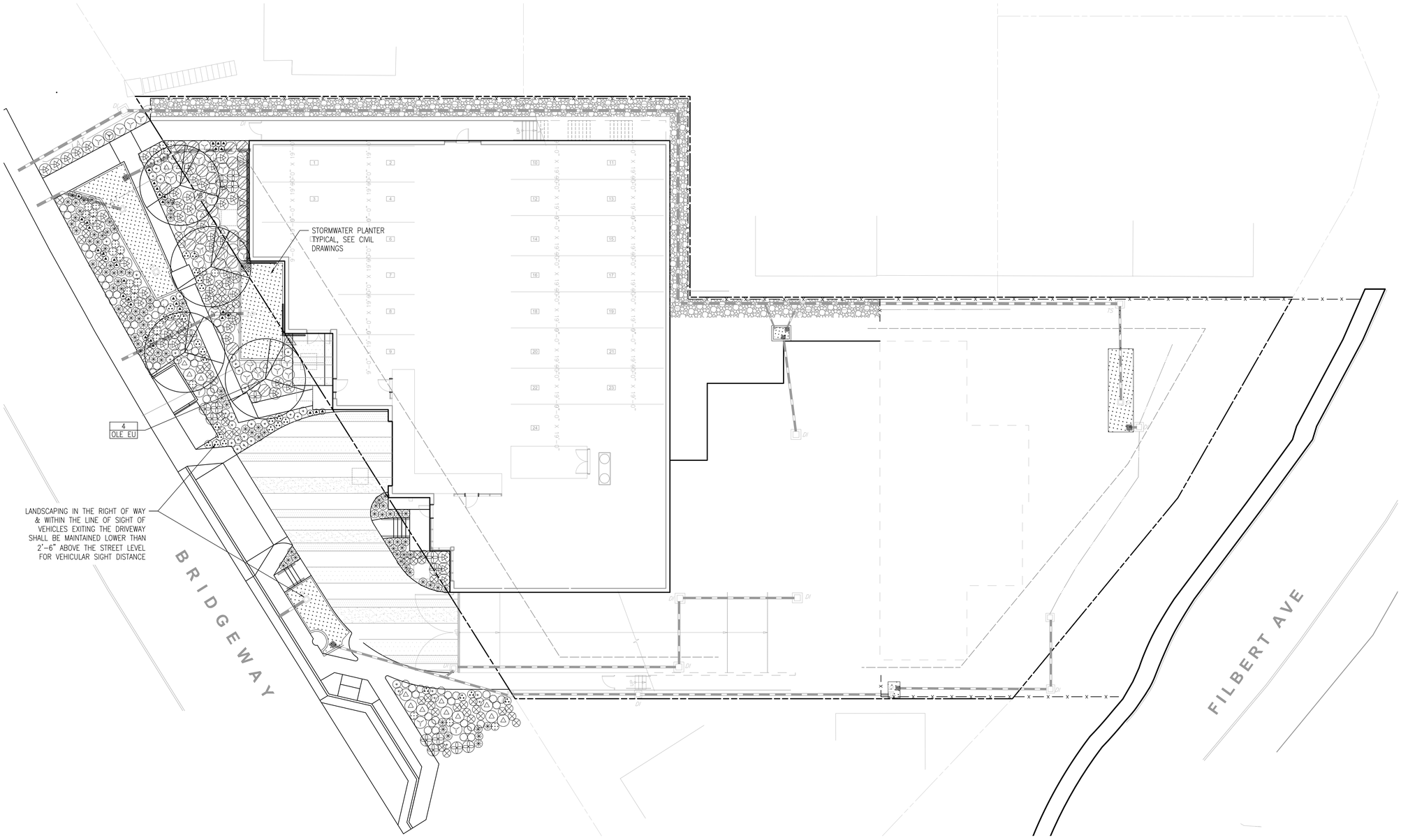
PROJECTNORTH
TRUE NORTH

PRELIMINARY LANDSCAPE PLAN - SECOND FLOOR

1755 BRIDGEWAY, SAUSALITO, CALIFORNIA

05.04.2022

L1.2



PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QTY	WTR USE
TREES						
ACE GR	ACER GRISEUM	PAPERBARK MAPLE	36" BOX	PER PLAN	1	M
ACE PA	ACER PALMATUM 'SANGO KAKU'	JAPANESE MAPLE	24" BOX	PER PLAN	1	M
OLE EU	OLEA EUROPAEA 'WILSONII'	FRUITLESS OLIVE	36" BOX	PER PLAN	7	VL
PYR CA	PYRUS CALLERYANA 'CAPITAL'	FLOWERING PEAR	48" BOX	PER PLAN	3	M
SHRUBS & GRASSES						
	ACHILLEA MILLEFOLIUM 'MOONSHINE'	YARROW	1 GAL	2'-0" OC		L
	AEONIUM 'SUNBURST'	COPPER PINWHEEL	1 GAL	1'-6" OC		L
	AGAVE ATTENUATA 'NOVA'	BLUE FOXTAIL AGAVE	5 GAL	3'-0" OC		L
	CAREX DIVULSA	BERKELEY SEDGE	1 GAL	1'-6" OC		L
	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	5 GAL	3'-0" OC		L
	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	1 GAL	2'-0" OC		L
	ERIOGONUM GRANDE VAR. RUBESCENS	SAN MIGUEL ISLAND BUCKWHEAT	1 GAL	3'-0" OC		L
	ERIGONIUM HERACLEOIDES	PARSNIP FLOWERED BUCKWHEAT	1 GAL	2'-0" OC		L
	JUNCUS PATENS	CALIF. GRAY RUSH	1 GAL	2'-0" OC		L
	LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE WILD RYE	5 GAL	3'-0" OC		L
	LOMANDRA LONGIFOLIA 'BREEZE'	DWARF MAT RUSH	5 GAL	3'-0" OC		L
	PENSTEMON CLEVELANDII	CLEVELAND PENSTEMON	1 GAL	2'-0" OC		L
	PENSTEMON EATONII	FIRECRACKER PENSTEMON	1 GAL	1'-8" OC		L
	PENSTEMON SPECTABILIS	SHOWY PENSTEMON	1 GAL	3'-0" OC		L
	PITTOSPORUM TENUIFOLIUM 'SILVER SHEEN'	SILVER SHEEN PITTOSPORUM	5 GAL	5'-0" OC		M
GROUNDCOVERS						
	ARCTOSTAPHYLOS 'EMERALD CARPET'	MANZANITA	1 GAL	4'-0" OC		L
	CEANOTHUS 'CENTENNIAL'	CEANOTHUS	1 GAL	4'-0" OC		L
STORMWATER PLANTING						
	CAREX DIVULSA	BERKELEY SEDGE	1 GAL	2'-0" OC		L
	JUNCUS PATENS	GRAY RUSH	1 GAL	2'-0" OC		L
	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	1 GAL	1'-0" OC		L
VINES						
	HARDENBERGIA VIOLACEA	PURPLE LILAC VINE	5 GAL	PER PLAN	4	L

TREE REPLACEMENT

PROTECTED TREES PROPOSED FOR REMOVAL: 25
PROPOSED REPLACEMENT TREES: 12
NOTE: SEE TREE MAP SHEET L5.1 FOR MORE INFORMATION

NOTES

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5. IRRIGATION EQUIPMENT SHALL INCLUDE A MANUAL SHUT-OFF VALVE AND BACKFLOW PREVENTION DEVICE.
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N

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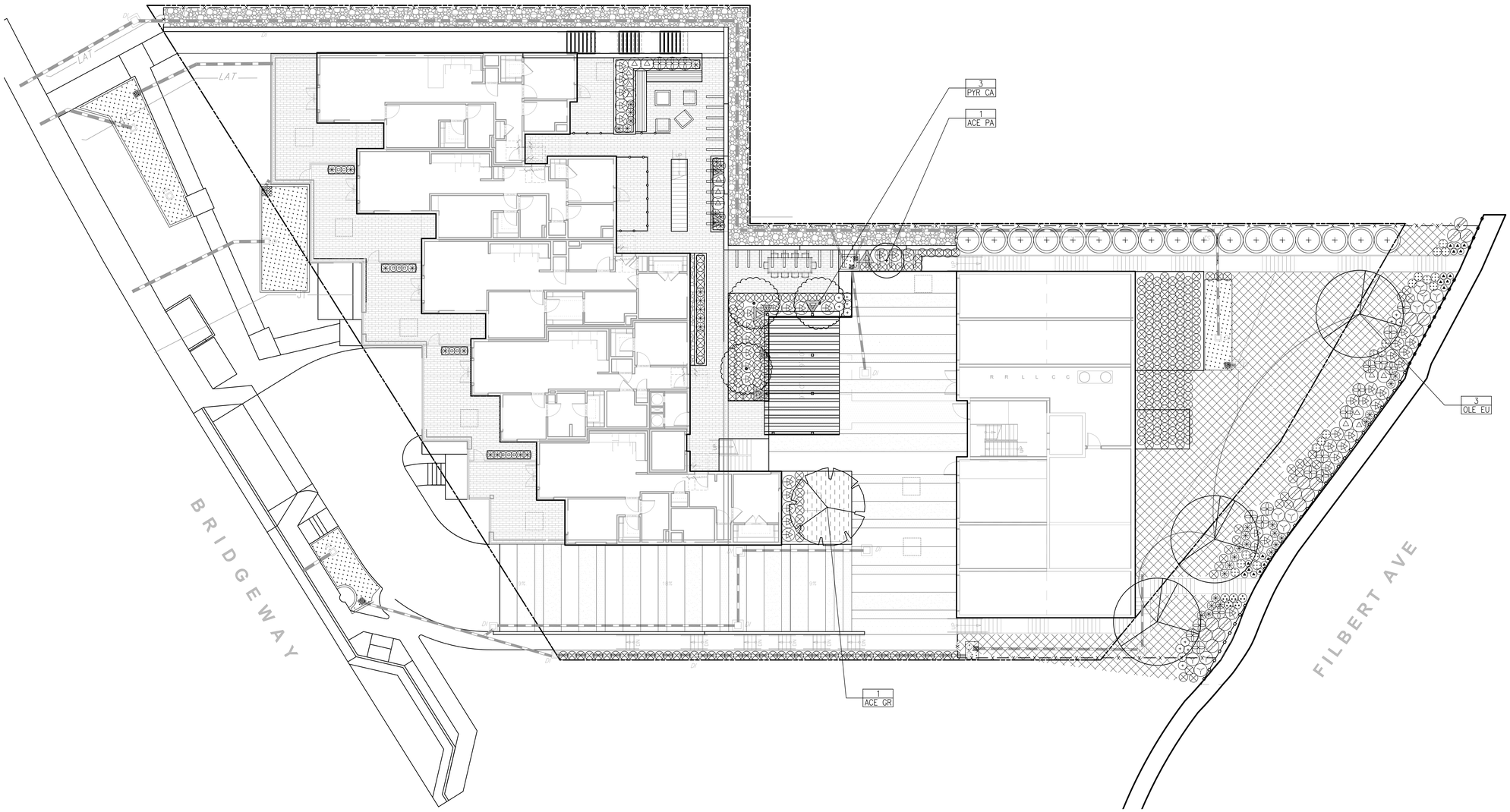
SCALE: 3/32" = 1'-0"



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OLEA EUROPAEA

PYRUS CALLERYANA 'CAPITAL'

SCREEN SHRUBS

PITTOSPORUM TENUIFOLIUM 'SILVER SHEEN'

SHRUBS & GRASSES

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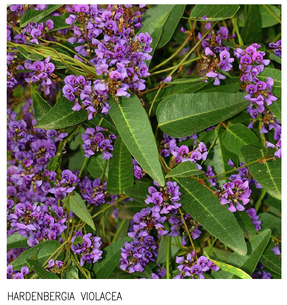

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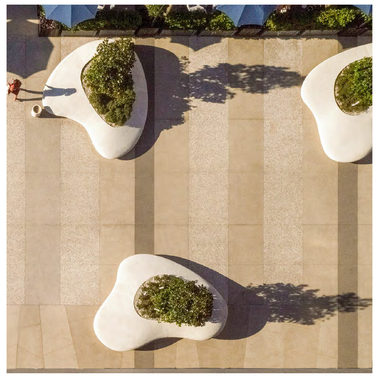

1A

1B

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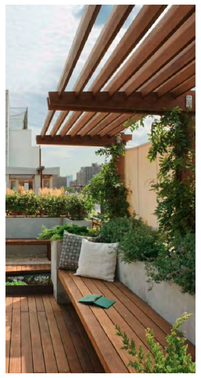

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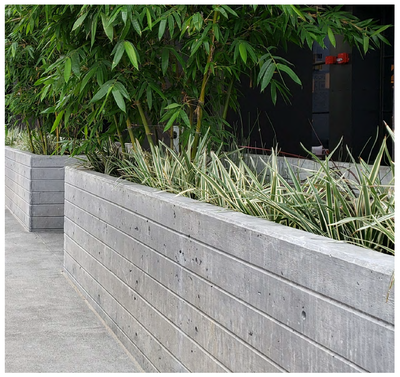

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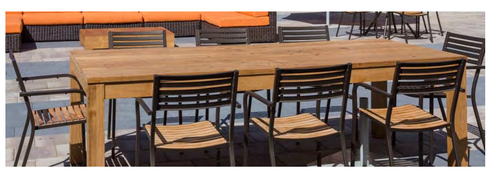

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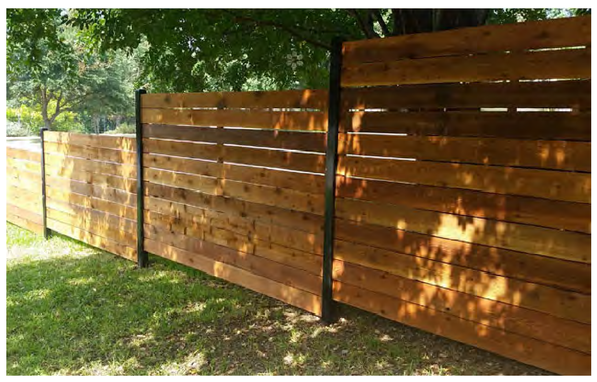

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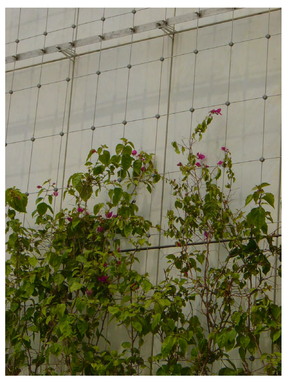


22

1 BRIDGEWAY ELEVATION
SCALE: NTS

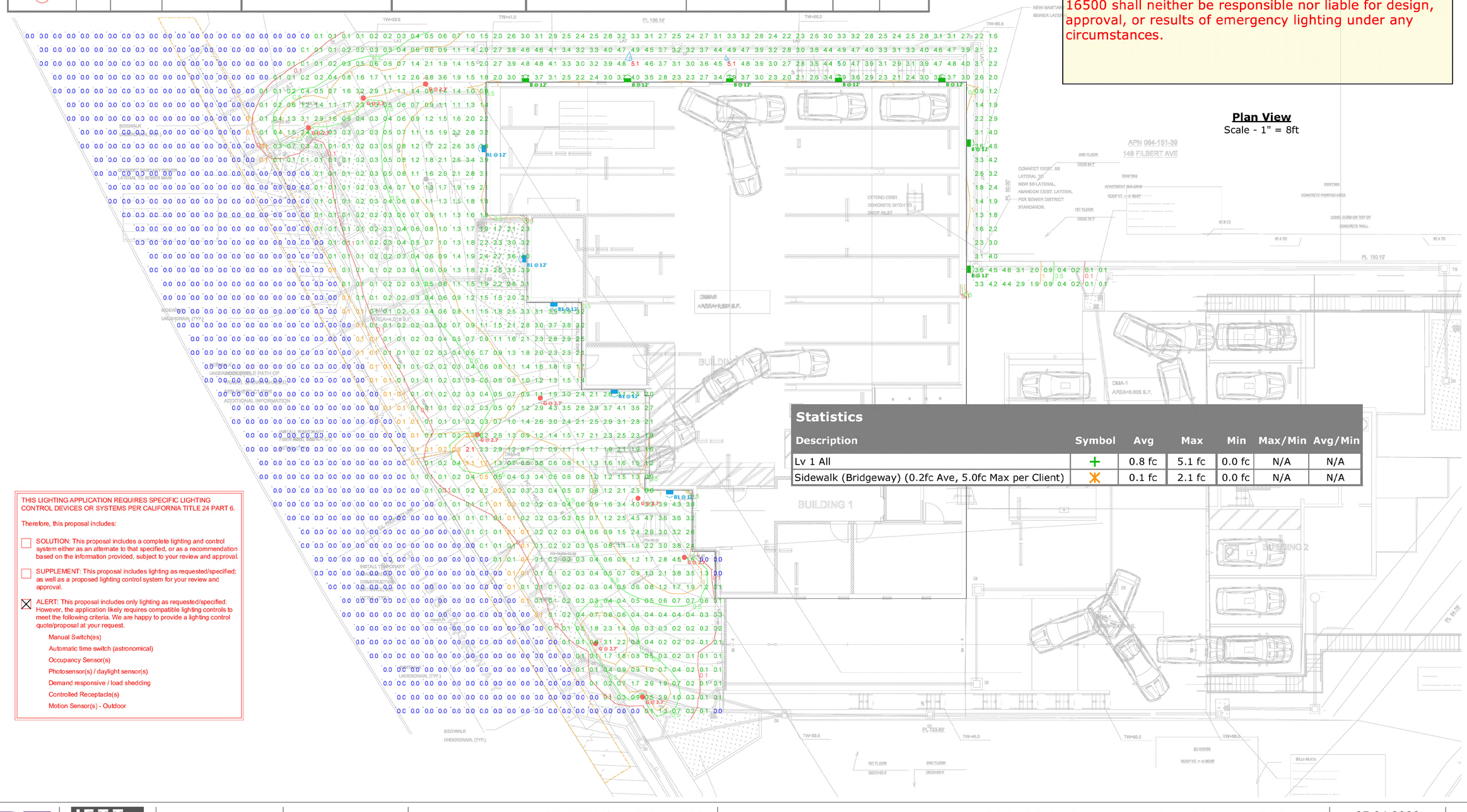
Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	17	Tech Lighting	Taag, 700OWTAG83010C3UNVS	LED Wall-Mounted Sconce, Type III Distribution	LED	102171228CHI-073 GB 700OWTAG83010C 3UNVS.ies	8691	0.85	75.9
	B	12	Lithonia Lighting	WST LED P1 30K VW MVOLT	WST LED, Performance package 1, 3000 K, visual comfort wide, MVOLT	LED	WST_LED_P1_30K_ VW_MVOLT.ies	1548	0.85	12
	B1	8	Lithonia Lighting	WST LED P1 30K VF MVOLT	WST LED, Performance package 1, 3000 K, visual comfort forward throw, MVOLT	LED	WST_LED_P1_30K_ VF_MVOLT.ies	1529	0.85	12
	E	43	LIGMAN	URA-40692-W30	Rado 6 recessed location light	30 LED 3000K	URA-40692-W30.ies	438	0.85	14.8
	G	9	ERCO GmbH	Erco Castor Bollard 35748023_V02	Castor Bollard luminaire	LED 12W warm white	erco-35748-023-en_us-ies.ies	236	0.85	14

Note

Reflectances: 30% for All Exterior Surfaces, Objecrts, Buildings
Luminaire Mounting Height: Indicated in the Plan Drawing
Calculation Grid Height: 0'-0" Above Finished Ground

Luminaire illuminance values provided in this report, whether for normal, critical, or emergency applications, are for product application assistance only. These values were developed in collaboration with, and are subject to approval by, the design professional of record (architect/engineer/LC), and are NOT intended for construction. Because these values are approximate and based on limited application information provided to 16500, Inc. at the time of calculation, 16500, Inc. does not warrant the installed performance of the luminaire(s) will match that shown in this report. Please verify all data and conditions to assure the accuracy of the report. 16500 shall neither be responsible nor liable for design, approval, or results of emergency lighting under any circumstances.



Plan View
Scale - 1" = 8ft

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Lv 1 All	+	0.8 fc	5.1 fc	0.0 fc	N/A	N/A
Sidewalk (Bridgeway) (0.2fc Ave, 5.0fc Max per Client)	X	0.1 fc	2.1 fc	0.0 fc	N/A	N/A

THIS LIGHTING APPLICATION REQUIRES SPECIFIC LIGHTING CONTROL DEVICES OR SYSTEMS PER CALIFORNIA TITLE 24 PART 6.

Therefore, this proposal includes:

- ☐ SOLUTION: This proposal includes a complete lighting and control system either as an alternate to that specified, or as a recommendation based on the information provided, subject to your review and approval.
- ☐ SUPPLEMENT: This proposal includes lighting as requested/specified; as well as a proposed lighting control system for your review and approval.
- ☒ ALERT: This proposal includes only lighting as requested/specified. However, the application likely requires compatible lighting controls to meet the following criteria. We are happy to provide a lighting control quote/proposal at your request.
  - Manual Switch(s)
  - Automatic time switch (astronomical)
  - Occupancy Sensor(s)
  - Photosensor(s) / daylight sensor(s)
  - Demand responsive / load shedding
  - Controlled Receptacle(s)
  - Motion Sensor(s) - Outdoor

Appendix B

Air Quality Modeling Details

Construction

Construction Phase	ROG	NO_X	CO	PM_{10} Exhaust	PM2.5 Exhaust
2025	0.42	3.82	5.33	0.15	0.14
2026	1.23	3.27	4.91	0.12	0.11
maximum	1.23	3.82	5.33	0.15	0.14
BAAQMD Construction Threshold	**54**	**54**	**N/A**	**82**	**54**
Exceed Threshold?	**No**	**No**	**-**	**No**	**No**

Construction GHG

Phase	MTCO2e/yr (Average)
2023	674
2024	656
2025	441
total	**1771**

Operations

Emissions Source	ROG (lbs/day)	NOx (lbs/day)	CO (lbs/day)	$PM_{10\ Total}$ (lbs/day)	$PM_{2.5\ Total}$ (lbs/day)
Mobile	0.33	0.27	2.64	0.67	0.17
Area	0.55	0.01	0.81	< 0.005	< 0.005
Energy	0.00	0.00	0.00	0.00	0.00
Total Emissions	0.88	0.28	3.45	0.67	0.17
BAAQMD Emissions Threshold	54	54	N/A	82	54
Threshold Exceeded?	No	No	No	No	No

Operational GHG

Annual Emissions (MT/yr)	MTCO2e
Mobile	1261
Area	9
Energy	297
Water	35
Waste	48
Refrig.	13
Total	1663

CalEEMod Construction Phase Inputs*

5-Day Work Week/8 hours per day

Adjusted Phasing

	Default	Adjusted
Demolition	10	42
Site Preparation	1	4
Grading	2	8
Excavation	0	0
Building Constructi	100	424
Paving	5	21
Arch Coating	5	21

Construction Start	1/1/2025	
Construction End D	12/31/2026	note: PD states construction will take approx. 24 months
Total Work Days	522.00	

Address	SF
1745 Bridgeway	1100
1751 Bridgeway	1650
1757 Bridgeway	1500
160 Filbert	1750
Total	6000

1	kwh	=	3.412799994	kBTU

Land Use Subtype	CalEEMod Default NG Demand (kBTU/yr)	Conversion to kWh	CalEEMod Default kWh Demand	Total Kwh Demand
Apartment Mid Rise (Building 1)	146,004.18	42,781.35	41,506.45	84,287.80
Apartment Mid Rise (Building 2)	67,386.54	19,745.24	19,156.83	38,902.07
Enclosed Parking (Building 1)	0.00	0.00	33,613.74	33,613.74
Enclosed Parking (Building 2)	0.00	0.00	11,204.58	11,204.58
Total				**156,803.60**

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Na	Bridgeway Commons
Constructi	1/1/2025
Operationa	2027
Lead Agency	
Land Use S	Project/site
Analysis Le	County
Windspeed	3.9
Precipitati	34.8
Location	37.861566929739936, -122.49236504473264
County	Marin
City	Sausalito
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	904
EDFZ	2
Electric Ut	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Versio	2022.1.1.26

1.2. Land Use Types

Land Use S	Size	Unit	Lot Acreag	Building Ar	Landscape	Special La	Population	Description
Apartment	13	Dwelling U	0.29	12480	0		31	Building 1
Apartment	6	Dwelling U	0.29	5760	0		14	Building 2
Enclosed F	24	Space	0	9600	0			Building 1 Enclosed Parking
Enclosed F	8	Space	0	3200	0			Building 2 Enclosed Parking

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Constructi	C-10-A	Water Exposed Surfaces
Constructi	C-10-B	Water Active Demolition Sites
Constructi	C-10-C	Water Unpaved Construction Roads
Constructi	C-11	Limit Vehicle Speeds on Unpaved Roads
Constructi	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Unmit.	0.71	0.59	5.35	7.78	0.01	0.22	0.19	0.41	0.2	0.04	0.25		1585	1585	0.07	0.03	0.96	1598
Mit.	0.71	0.59	5.35	7.78	0.01	0.22	0.19	0.41	0.2	0.04	0.25		1585	1585	0.07	0.03	0.96	1598
% Reduced																		
Daily, Winter (Max)																		
Unmit.	15.1	15.1	10.1	10.3	0.02	0.46	5.37	5.84	0.43	2.58	3.01		1774	1774	0.07	0.03	0.02	1781
Mit.	15.1	15.1	10.1	10.3	0.02	0.46	2.13	2.6	0.43	1.02	1.44		1774	1774	0.07	0.03	0.02	1781
% Reduced							60.3	55.5		60.7	52.1							
Average Daily (Max)																		
Unmit.	1.3	1.23	3.82	5.33	0.01	0.15	0.26	0.41	0.14	0.09	0.23		1061	1061	0.05	0.02	0.27	1069
Mit.	1.3	1.23	3.82	5.33	0.01	0.15	0.18	0.33	0.14	0.05	0.19		1061	1061	0.05	0.02	0.27	1069
% Reduced							31.3	19.6		40.6	15.5							
Annual (Max)																		
Unmit.	0.24	0.22	0.7	0.97	< 0.005	0.03	0.05	0.08	0.03	0.02	0.04		176	176	0.01	< 0.005	0.04	177
Mit.	0.24	0.22	0.7	0.97	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04		176	176	0.01	< 0.005	0.04	177
% Reduced							31.3	19.6		40.6	15.5							

2.2. Construction Emissions by Year, Unmitigated

Year	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily - Summer (Max)																		
2025	0.71	0.59	5.35	7.78	0.01	0.22	0.19	0.41	0.2	0.04	0.25		1585	1585	0.07	0.03	0.96	1598
2026	0.67	0.56	5	7.69	0.01	0.19	0.19	0.38	0.18	0.04	0.22		1580	1580	0.07	0.03	0.88	1592
Daily - Winter (Max)																		
2025	1.32	1.11	10.1	10.3	0.02	0.46	5.37	5.84	0.43	2.58	3.01		1774	1774	0.07	0.03	0.02	1781
2026	15.1	15.1	5.02	7.62	0.01	0.19	0.19	0.38	0.18	0.04	0.22		1569	1569	0.07	0.03	0.02	1580
Average Daily																		
2025	0.5	0.42	3.82	5.33	0.01	0.15	0.26	0.41	0.14	0.09	0.23		1061	1061	0.05	0.02	0.27	1069
2026	1.3	1.23	3.27	4.91	0.01	0.12	0.12	0.24	0.11	0.03	0.14		995	995	0.04	0.02	0.24	1003
Annual																		
2025	0.09	0.08	0.7	0.97	< 0.005	0.03	0.05	0.08	0.03	0.02	0.04		176	176	0.01	< 0.005	0.04	177
2026	0.24	0.22	0.6	0.9	< 0.005	0.02	0.02	0.04	0.02	0.01	0.03		165	165	0.01	< 0.005	0.04	166

2.3. Construction Emissions by Year, Mitigated

Year	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily - Summer (Max)																		
2025	0.71	0.59	5.35	7.78	0.01	0.22	0.19	0.41	0.2	0.04	0.25		1585	1585	0.07	0.03	0.96	1598
2026	0.67	0.56	5	7.69	0.01	0.19	0.19	0.38	0.18	0.04	0.22		1580	1580	0.07	0.03	0.88	1592
Daily - Winter (Max)																		
2025	1.32	1.11	10.1	10.3	0.02	0.46	2.13	2.6	0.43	1.02	1.44		1774	1774	0.07	0.03	0.02	1781
2026	15.1	15.1	5.02	7.62	0.01	0.19	0.19	0.38	0.18	0.04	0.22		1569	1569	0.07	0.03	0.02	1580
Average Daily																		
2025	0.5	0.42	3.82	5.33	0.01	0.15	0.18	0.33	0.14	0.05	0.19		1061	1061	0.05	0.02	0.27	1069
2026	1.3	1.23	3.27	4.91	0.01	0.12	0.12	0.24	0.11	0.03	0.14		995	995	0.04	0.02	0.24	1003
Annual																		
2025	0.09	0.08	0.7	0.97	< 0.005	0.03	0.03	0.06	0.03	0.01	0.04		176	176	0.01	< 0.005	0.04	177
2026	0.24	0.22	0.6	0.9	< 0.005	0.02	0.02	0.04	0.02	0.01	0.03		165	165	0.01	< 0.005	0.04	166

2.4. Operations Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Unmit.	1.06	1.01	0.27	4.64	0.01	0.01	0.71	0.72	0.01	0.18	0.19	8.57	861	870	0.91	0.03	2.63	904
Daily, Winter (Max)																		
Unmit.	0.85	0.81	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19	8.57	814	823	0.91	0.03	0.2	856
Average Daily (Max)																		
Unmit.	0.92	0.88	0.28	3.44	0.01	0.01	0.66	0.67	< 0.005	0.17	0.17	8.57	784	792	0.91	0.03	1.16	825
Annual (Max)																		
Unmit.	0.17	0.16	0.05	0.63	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	1.42	130	131	0.15	0.01	0.19	137

2.5. Operations Emissions by Sector, Unmitigated

Sector	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Mobile	0.4	0.37	0.26	3	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		760	760	0.03	0.03	2.5	771
Area	0.66	0.65	0.01	1.64	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	5.17	5.17	< 0.005	< 0.005		5.19
Energy	0	0	0	0	0	0		0	0		0		93.9	93.9	0.02	< 0.005		94.8
Water												1.1	2.08	3.18	0.11	< 0.005		6.82
Waste												7.47	0	7.47	0.75	0		26.1
Refrig.																	0.13	0.13
Total	1.06	1.01	0.27	4.64	0.01	0.01	0.71	0.72	0.01	0.18	0.19	8.57	861	870	0.91	0.03	2.63	904
Daily, Winter (Max)																		
Mobile	0.39	0.35	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		718	718	0.03	0.03	0.06	728
Area	0.46	0.46	0	0	0	0		0	0		0	0	0	0	0	0		0
Energy	0	0	0	0	0	0		0	0		0		93.9	93.9	0.02	< 0.005		94.8
Water												1.1	2.08	3.18	0.11	< 0.005		6.82
Waste												7.47	0	7.47	0.75	0		26.1
Refrig.																	0.13	0.13
Total	0.85	0.81	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19	8.57	814	823	0.91	0.03	0.2	856
Average Daily																		
Mobile	0.36	0.33	0.27	2.64	0.01	< 0.005	0.66	0.67	< 0.005	0.17	0.17		685	685	0.03	0.03	1.02	695
Area	0.56	0.55	0.01	0.81	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	2.55	2.55	< 0.005	< 0.005		2.56
Energy	0	0	0	0	0	0		0	0		0		93.9	93.9	0.02	< 0.005		94.8
Water												1.1	2.08	3.18	0.11	< 0.005		6.82
Waste												7.47	0	7.47	0.75	0		26.1
Refrig.																	0.13	0.13
Total	0.92	0.88	0.28	3.44	0.01	0.01	0.66	0.67	< 0.005	0.17	0.17	8.57	784	792	0.91	0.03	1.16	825
Annual																		
Mobile	0.07	0.06	0.05	0.48	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03		113	113	0.01	< 0.005	0.17	115
Area	0.1	0.1	< 0.005	0.15	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	0.42	0.42	< 0.005	< 0.005		0.42
Energy	0	0	0	0	0	0		0	0		0		15.5	15.5	< 0.005	< 0.005		15.7
Water												0.18	0.34	0.53	0.02	< 0.005		1.13
Waste												1.24	0	1.24	0.12	0		4.33
Refrig.																	0.02	0.02
Total	0.17	0.16	0.05	0.63	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	1.42	130	131	0.15	0.01	0.19	137

2.6. Operations Emissions by Sector, Mitigated

Sector	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Mobile	0.4	0.37	0.26	3	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		760	760	0.03	0.03	2.5	771
Area	0.66	0.65	0.01	1.64	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	5.17	5.17	< 0.005	< 0.005		5.19
Energy	0	0	0	0	0	0		0	0		0		93.9	93.9	0.02	< 0.005		94.8
Water												1.1	2.08	3.18	0.11	< 0.005		6.82
Waste												7.47	0	7.47	0.75	0		26.1
Refrig.																	0.13	0.13
Total	1.06	1.01	0.27	4.64	0.01	0.01	0.71	0.72	0.01	0.18	0.19	8.57	861	870	0.91	0.03	2.63	904
Daily, Winter (Max)																		
Mobile	0.39	0.35	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		718	718	0.03	0.03	0.06	728
Area	0.46	0.46	0	0	0	0		0	0		0	0	0	0	0	0		0
Energy	0	0	0	0	0	0		0	0		0		93.9	93.9	0.02	< 0.005		94.8
Water												1.1	2.08	3.18	0.11	< 0.005		6.82
Waste												7.47	0	7.47	0.75	0		26.1
Refrig.																	0.13	0.13
Total	0.85	0.81	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19	8.57	814	823	0.91	0.03	0.2	856
Average Daily																		
Mobile	0.36	0.33	0.27	2.64	0.01	< 0.005	0.66	0.67	< 0.005	0.17	0.17		685	685	0.03	0.03	1.02	695
Area	0.56	0.55	0.01	0.81	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	2.55	2.55	< 0.005	< 0.005		2.56
Energy	0	0	0	0	0	0		0	0		0		93.9	93.9	0.02	< 0.005		94.8
Water												1.1	2.08	3.18	0.11	< 0.005		6.82
Waste												7.47	0	7.47	0.75	0		26.1
Refrig.																	0.13	0.13
Total	0.92	0.88	0.28	3.44	0.01	0.01	0.66	0.67	< 0.005	0.17	0.17	8.57	784	792	0.91	0.03	1.16	825
Annual																		
Mobile	0.07	0.06	0.05	0.48	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03		113	113	0.01	< 0.005	0.17	115
Area	0.1	0.1	< 0.005	0.15	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	0.42	0.42	< 0.005	< 0.005		0.42
Energy	0	0	0	0	0	0		0	0		0		15.5	15.5	< 0.005	< 0.005		15.7
Water												0.18	0.34	0.53	0.02	< 0.005		1.13
Waste												1.24	0	1.24	0.12	0		4.33
Refrig.																	0.02	0.02
Total	0.17	0.16	0.05	0.63	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03	1.42	130	131	0.15	0.01	0.19	137

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		

Off-Road E	0.56	0.47	4.33	5.65	0.01	0.16		0.16	0.14		0.14		852	852	0.03	0.01		855
Demolition							0.15	0.15		0.02	0.02							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.06	0.05	0.5	0.65	< 0.005	0.02		0.02	0.02		0.02		98.1	98.1	< 0.005	< 0.005		98.4
Demolition							0.02	0.02		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.01	0.01	0.09	0.12	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		16.2	16.2	< 0.005	< 0.005		16.3
Demolition							< 0.005	< 0.005		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.04	0.03	0.03	0.35	0	0	0.08	0.08	0	0.02	0.02		80.4	80.4	< 0.005	< 0.005	0.01	81.5
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0.02	< 0.005	0.19	0.1	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01		122	122	0.02	0.02	0.01	128
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.04	0	0	0.01	0.01	0	< 0.005	< 0.005		9.29	9.29	< 0.005	< 0.005	0.02	9.43
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		14	14	< 0.005	< 0.005	0.01	14.7
Annual																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.54	1.54	< 0.005	< 0.005	< 0.005	1.56
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		2.32	2.32	< 0.005	< 0.005	< 0.005	2.44

3.2. Demolition (2025) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	0.56	0.47	4.33	5.65	0.01	0.16		0.16	0.14		0.14		852	852	0.03	0.01		855
Demolition							0.1	0.1		0.01	0.01							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.06	0.05	0.5	0.65	< 0.005	0.02		0.02	0.02		0.02		98.1	98.1	< 0.005	< 0.005		98.4
Demolition							0.01	0.01		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.01	0.01	0.09	0.12	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		16.2	16.2	< 0.005	< 0.005		16.3
Demolition							< 0.005	< 0.005		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.04	0.03	0.03	0.35	0	0	0.08	0.08	0	0.02	0.02		80.4	80.4	< 0.005	< 0.005	0.01	81.5
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0.02	< 0.005	0.19	0.1	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01		122	122	0.02	0.02	0.01	128
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.04	0	0	0.01	0.01	0	< 0.005	< 0.005		9.29	9.29	< 0.005	< 0.005	0.02	9.43
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		14	14	< 0.005	< 0.005	0.01	14.7
Annual																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.54	1.54	< 0.005	< 0.005	< 0.005	1.56
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		2.32	2.32	< 0.005	< 0.005	< 0.005	2.44

3.3. Site Preparation (2025) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	0.56	0.47	4.16	5.57	0.01	0.21		0.21	0.2		0.2		859	859	0.03	0.01		862
Dust From Material Movement							0.53	0.53		0.06	0.06							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.01	0.01	0.05	0.06	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		9.41	9.41	< 0.005	< 0.005		9.45
Dust From Material Movement							0.01	0.01		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		1.56	1.56	< 0.005	< 0.005		1.56
Dust From Material Movement							< 0.005	< 0.005		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.02	0.02	0.02	0.18	0	0	0.04	0.04	0	0.01	0.01		40.2	40.2	< 0.005	< 0.005	< 0.005	40.8
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.44	0.44	< 0.005	< 0.005	< 0.005	0.45
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.4. Site Preparation (2025) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	0.56	0.47	4.16	5.57	0.01	0.21		0.21	0.2		0.2		859	859	0.03	0.01		862
Dust From Material Movement							0.21	0.21		0.02	0.02							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.01	0.01	0.05	0.06	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		9.41	9.41	< 0.005	< 0.005		9.45
Dust From Material Movement							< 0.005	< 0.005		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		1.56	1.56	< 0.005	< 0.005		1.56
Dust From Material Movement							< 0.005	< 0.005		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.02	0.02	0.02	0.18	0	0	0.04	0.04	0	0.01	0.01		40.2	40.2	< 0.005	< 0.005	< 0.005	40.8
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.44	0.44	< 0.005	< 0.005	< 0.005	0.45
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.5. Grading (2025) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	1.29	1.09	10.1	10	0.02	0.46		0.46	0.43		0.43		1714	1714	0.07	0.01		1720
Dust From Material Movement							5.31	5.31		2.57	2.57							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.03	0.02	0.22	0.22	< 0.005	0.01		0.01	0.01		0.01		37.6	37.6	< 0.005	< 0.005		37.7
Dust From Material Movement							0.12	0.12		0.06	0.06							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.01	< 0.005	0.04	0.04	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		6.22	6.22	< 0.005	< 0.005		6.24
Dust From Material Movement							0.02	0.02		0.01	0.01							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.03	0.03	0.02	0.26	0	0	0.06	0.06	0	0.01	0.01		60.3	60.3	< 0.005	< 0.005	0.01	61.1
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.33	1.33	< 0.005	< 0.005	< 0.005	1.35
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.22	0.22	< 0.005	< 0.005	< 0.005	0.22
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.6. Grading (2025) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	1.29	1.09	10.1	10	0.02	0.46		0.46	0.43		0.43		1714	1714	0.07	0.01		1720
Dust From Material Movement							2.07	2.07		1	1							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.03	0.02	0.22	0.22	< 0.005	0.01		0.01	0.01		0.01		37.6	37.6	< 0.005	< 0.005		37.7
Dust From Material Movement							0.05	0.05		0.02	0.02							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.01	< 0.005	0.04	0.04	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		6.22	6.22	< 0.005	< 0.005		6.24
Dust From Material Movement							0.01	0.01		< 0.005	< 0.005							
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.03	0.03	0.02	0.26	0	0	0.06	0.06	0	0.01	0.01		60.3	60.3	< 0.005	< 0.005	0.01	61.1
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.33	1.33	< 0.005	< 0.005	< 0.005	1.35

Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005	0.22	0.22	< 0.005	< 0.005	< 0.005	0.22	
Vendor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.7. Building Construction (2025) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Off-Road E	0.62	0.52	5.14	6.94	0.01	0.22		0.22	0.2		0.2	1305	1305	0.05	0.01		1309	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily, Winter (Max)																		
Off-Road E	0.62	0.52	5.14	6.94	0.01	0.22		0.22	0.2		0.2	1305	1305	0.05	0.01		1309	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Daily																		
Off-Road E	0.35	0.29	2.91	3.92	0.01	0.12		0.12	0.11		0.11	738	738	0.03	0.01		740	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Off-Road E	0.06	0.05	0.53	0.72	< 0.005	0.02		0.02	0.02		0.02	122	122	< 0.005	< 0.005		123	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Worker	0.07	0.07	0.05	0.74	0	0	0.16	0.16	0	0.04	0.04	164	164	< 0.005	0.01	0.67	167	
Vendor	0.02	< 0.005	0.17	0.1	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	116	116	0.01	0.02	0.3	122	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily, Winter (Max)																		
Worker	0.07	0.07	0.06	0.67	0	0	0.16	0.16	0	0.04	0.04	153	153	< 0.005	0.01	0.02	155	
Vendor	0.01	< 0.005	0.17	0.1	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	116	116	0.01	0.02	0.01	121	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Daily																		
Worker	0.04	0.04	0.03	0.37	0	0	0.09	0.09	0	0.02	0.02	87	87	< 0.005	< 0.005	0.16	88.3	
Vendor	0.01	< 0.005	0.1	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	65.7	65.7	0.01	0.01	0.07	68.6	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Worker	0.01	0.01	0.01	0.07	0	0	0.02	0.02	0	< 0.005	< 0.005	14.4	14.4	< 0.005	< 0.005	0.03	14.6	
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.9	10.9	< 0.005	< 0.005	0.01	11.4	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.8. Building Construction (2025) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Off-Road E	0.62	0.52	5.14	6.94	0.01	0.22		0.22	0.2		0.2	1305	1305	0.05	0.01		1309	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily, Winter (Max)																		
Off-Road E	0.62	0.52	5.14	6.94	0.01	0.22		0.22	0.2		0.2	1305	1305	0.05	0.01		1309	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Daily																		
Off-Road E	0.35	0.29	2.91	3.92	0.01	0.12		0.12	0.11		0.11	738	738	0.03	0.01		740	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Off-Road E	0.06	0.05	0.53	0.72	< 0.005	0.02		0.02	0.02		0.02	122	122	< 0.005	< 0.005		123	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Worker	0.07	0.07	0.05	0.74	0	0	0.16	0.16	0	0.04	0.04	164	164	< 0.005	0.01	0.67	167	
Vendor	0.02	< 0.005	0.17	0.1	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	116	116	0.01	0.02	0.3	122	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily, Winter (Max)																		
Worker	0.07	0.07	0.06	0.67	0	0	0.16	0.16	0	0.04	0.04	153	153	< 0.005	0.01	0.02	155	
Vendor	0.01	< 0.005	0.17	0.1	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	116	116	0.01	0.02	0.01	121	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Daily																		
Worker	0.04	0.04	0.03	0.37	0	0	0.09	0.09	0	0.02	0.02	87	87	< 0.005	< 0.005	0.16	88.3	
Vendor	0.01	< 0.005	0.1	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	65.7	65.7	0.01	0.01	0.07	68.6	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Worker	0.01	0.01	0.01	0.07	0	0	0.02	0.02	0	< 0.005	< 0.005	14.4	14.4	< 0.005	< 0.005	0.03	14.6	
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10.9	10.9	< 0.005	< 0.005	0.01	11.4	
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.9. Building Construction (2026) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Off-Road E	0.59	0.49	4.81	6.91	0.01	0.19		0.19	0.17		0.17	1304	1304	0.05	0.01		1309	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily, Winter (Max)																		
Off-Road E	0.59	0.49	4.81	6.91	0.01	0.19		0.19	0.17		0.17	1304	1304	0.05	0.01		1309	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Daily																		
Off-Road E	0.35	0.29	2.85	4.09	0.01	0.11		0.11	0.1		0.1	773	773	0.03	0.01		776	
Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Off-Road E	0.06	0.05	0.52	0.75	< 0.005	0.02		0.02	0.02		0.02	128	128	0.01	< 0.005		128	

Onsite truc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Offsite																	
Daily, Summer (Max)																	
Worker	0.07	0.07	0.04	0.7	0	0	0.16	0.16	0	0.04	0.04	161	161	< 0.005	0.01	0.61	164
Vendor	0.01	< 0.005	0.16	0.09	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	114	114	0.01	0.02	0.27	119
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily, Winter (Max)																	
Worker	0.07	0.06	0.05	0.62	0	0	0.16	0.16	0	0.04	0.04	150	150	< 0.005	0.01	0.02	152
Vendor	0.01	< 0.005	0.16	0.09	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	114	114	0.01	0.02	0.01	119
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Daily																	
Worker	0.04	0.03	0.03	0.36	0	0	0.09	0.09	0	0.02	0.02	89.5	89.5	< 0.005	< 0.005	0.16	90.9
Vendor	0.01	< 0.005	0.1	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	67.6	67.6	0.01	0.01	0.07	70.7
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																	
Worker	0.01	0.01	0.01	0.06	0	0	0.02	0.02	0	< 0.005	< 0.005	14.8	14.8	< 0.005	< 0.005	0.03	15.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	11.2	11.2	< 0.005	< 0.005	0.01	11.7
Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

3.10. Building Construction (2026) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Off-Road E	0.59	0.49	4.81	6.91	0.01	0.19		0.19	0.17		0.17		1304	1304	0.05	0.01		1309
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Daily, Winter (Max)																		
Off-Road E	0.59	0.49	4.81	6.91	0.01	0.19		0.19	0.17		0.17		1304	1304	0.05	0.01		1309
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.35	0.29	2.85	4.09	0.01	0.11		0.11	0.1		0.1		773	773	0.03	0.01		776
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.06	0.05	0.52	0.75	< 0.005	0.02		0.02	0.02		0.02		128	128	0.01	< 0.005		128
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Worker	0.07	0.07	0.04	0.7	0	0	0.16	0.16	0	0.04	0.04		161	161	< 0.005	0.01	0.61	164
Vendor	0.01	< 0.005	0.16	0.09	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01		114	114	0.01	0.02	0.27	119
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Daily, Winter (Max)																		
Worker	0.07	0.06	0.05	0.62	0	0	0.16	0.16	0	0.04	0.04		150	150	< 0.005	0.01	0.02	152
Vendor	0.01	< 0.005	0.16	0.09	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01		114	114	0.01	0.02	0.01	119
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	0.04	0.03	0.03	0.36	0	0	0.09	0.09	0	0.02	0.02		89.5	89.5	< 0.005	< 0.005	0.16	90.9
Vendor	0.01	< 0.005	0.1	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01		67.6	67.6	0.01	0.01	0.07	70.7
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	0.01	0.01	0.01	0.06	0	0	0.02	0.02	0	< 0.005	< 0.005		14.8	14.8	< 0.005	< 0.005	0.03	15.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005		11.2	11.2	< 0.005	< 0.005	0.01	11.7
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.11. Paving (2026) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	0.59	0.49	4.24	5.3	0.01	0.18		0.18	0.16		0.16		823	823	0.03	0.01		826
Paving	0	0																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.03	0.03	0.24	0.3	< 0.005	0.01		0.01	0.01		0.01		47.3	47.3	< 0.005	< 0.005		47.5
Paving	0	0																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.01	0.01	0.04	0.06	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		7.84	7.84	< 0.005	< 0.005		7.87
Paving	0	0																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.06	0.05	0.05	0.57	0	0	0.14	0.14	0	0.03	0.03		138	138	< 0.005	0.01	0.01	140
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.03	0	0	0.01	0.01	0	< 0.005	< 0.005		7.98	7.98	< 0.005	< 0.005	0.01	8.1
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.32	1.32	< 0.005	< 0.005	< 0.005	1.34
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.12. Paving (2026) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		

Daily, Winter (Max)																		
Off-Road E	0.59	0.49	4.24	5.3	0.01	0.18		0.18	0.16		0.16		823	823	0.03	0.01		826
Paving	0	0																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.03	0.03	0.24	0.3	< 0.005	0.01		0.01	0.01		0.01		47.3	47.3	< 0.005	< 0.005		47.5
Paving	0	0																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	0.01	0.01	0.04	0.06	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		7.84	7.84	< 0.005	< 0.005		7.87
Paving	0	0																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.06	0.05	0.05	0.57	0	0	0.14	0.14	0	0.03	0.03		138	138	< 0.005	0.01	0.01	140
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.03	0	0	0.01	0.01	0	< 0.005	< 0.005		7.98	7.98	< 0.005	< 0.005	0.01	8.1
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.32	1.32	< 0.005	< 0.005	< 0.005	1.34
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.13. Architectural Coating (2026) - Unmitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	0.15	0.12	0.86	1.13	< 0.005	0.02		0.02	0.02		0.02		134	134	0.01	< 0.005		134
Architectu	15	15																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.01	0.01	0.05	0.07	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		7.68	7.68	< 0.005	< 0.005		7.71
Architectu	0.86	0.86																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		1.27	1.27	< 0.005	< 0.005		1.28
Architectu	0.16	0.16																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.01	0.01	0.01	0.12	0	0	0.03	0.03	0	0.01	0.01		30.1	30.1	< 0.005	< 0.005	< 0.005	30.5
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.74	1.74	< 0.005	< 0.005	< 0.005	1.76
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.29	0.29	< 0.005	< 0.005	< 0.005	0.29
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

3.14. Architectural Coating (2026) - Mitigated

Location	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Onsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Off-Road E	0.15	0.12	0.86	1.13	< 0.005	0.02		0.02	0.02		0.02		134	134	0.01	< 0.005		134
Architectu	15	15																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Off-Road E	0.01	0.01	0.05	0.07	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		7.68	7.68	< 0.005	< 0.005		7.71
Architectu	0.86	0.86																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Off-Road E	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		1.27	1.27	< 0.005	< 0.005		1.28
Architectu	0.16	0.16																
Onsite truc	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Offsite																		
Daily, Summer (Max)																		
Daily, Winter (Max)																		
Worker	0.01	0.01	0.01	0.12	0	0	0.03	0.03	0	0.01	0.01		30.1	30.1	< 0.005	< 0.005	< 0.005	30.5
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Average Daily																		
Worker	< 0.005	< 0.005	< 0.005	0.01	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		1.74	1.74	< 0.005	< 0.005	< 0.005	1.76
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Hauling	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Annual																		
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0	0	< 0.005	< 0.005	0	< 0.005	< 0.005		0.29	0.29	< 0.005	< 0.005	< 0.005	0.29
Vendor	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0

Hauling	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartment	0.4	0.37	0.26	3	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		760	760	0.03	0.03	2.5	771
Enclosed F	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total	0.4	0.37	0.26	3	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		760	760	0.03	0.03	2.5	771
Daily, Winter (Max)																		
Apartment	0.39	0.35	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		718	718	0.03	0.03	0.06	728
Enclosed F	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total	0.39	0.35	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		718	718	0.03	0.03	0.06	728
Annual																		
Apartment	0.07	0.06	0.05	0.48	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03		113	113	0.01	< 0.005	0.17	115
Enclosed F	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total	0.07	0.06	0.05	0.48	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03		113	113	0.01	< 0.005	0.17	115

4.1.2. Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartment	0.4	0.37	0.26	3	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		760	760	0.03	0.03	2.5	771
Enclosed F	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total	0.4	0.37	0.26	3	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		760	760	0.03	0.03	2.5	771
Daily, Winter (Max)																		
Apartment	0.39	0.35	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		718	718	0.03	0.03	0.06	728
Enclosed F	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total	0.39	0.35	0.31	2.87	0.01	< 0.005	0.71	0.72	< 0.005	0.18	0.19		718	718	0.03	0.03	0.06	728
Annual																		
Apartment	0.07	0.06	0.05	0.48	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03		113	113	0.01	< 0.005	0.17	115
Enclosed F	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Total	0.07	0.06	0.05	0.48	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.03		113	113	0.01	< 0.005	0.17	115

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise													68.8	68.8	0.01	< 0.005		69.5
Enclosed Parking Structure													25	25	< 0.005	< 0.005		25.3
Total													93.9	93.9	0.02	< 0.005		94.8
Daily, Winter (Max)																		
Apartments Mid Rise													68.8	68.8	0.01	< 0.005		69.5
Enclosed Parking Structure													25	25	< 0.005	< 0.005		25.3
Total													93.9	93.9	0.02	< 0.005		94.8
Annual																		
Apartments Mid Rise													11.4	11.4	< 0.005	< 0.005		11.5
Enclosed Parking Structure													4.15	4.15	< 0.005	< 0.005		4.19
Total													15.5	15.5	< 0.005	< 0.005		15.7

4.2.2. Electricity Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise													68.8	68.8	0.01	< 0.005		69.5
Enclosed Parking Structure													25	25	< 0.005	< 0.005		25.3
Total													93.9	93.9	0.02	< 0.005		94.8
Daily, Winter (Max)																		
Apartments Mid Rise													68.8	68.8	0.01	< 0.005		69.5
Enclosed Parking Structure													25	25	< 0.005	< 0.005		25.3
Total													93.9	93.9	0.02	< 0.005		94.8
Annual																		
Apartments Mid Rise													11.4	11.4	< 0.005	< 0.005		11.5
Enclosed Parking Structure													4.15	4.15	< 0.005	< 0.005		4.19
Total													15.5	15.5	< 0.005	< 0.005		15.7

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartment	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Enclosed F	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Total	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Daily, Winter (Max)																		
Apartment	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Enclosed F	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Total	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Annual																		
Apartment	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Enclosed F	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Total	0	0	0	0	0	0		0	0		0		0	0	0	0		0

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartment	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Enclosed F	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Total	0	0	0	0	0	0		0	0		0		0	0	0	0		0
Daily, Winter (Max)																		

Apartment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enclosed F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																
Apartment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enclosed F	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.3. Area Emissions by Source

4.3.1. Unmitigated

Source	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Hearths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer	0.39	0.39																
Architectu	0.07	0.07																
Landscape	0.2	0.19	0.01	1.64	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		5.17	5.17	< 0.005	< 0.005		5.19
Total	0.66	0.65	0.01	1.64	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	5.17	5.17	< 0.005	< 0.005		5.19
Daily, Winter (Max)																		
Hearths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer	0.39	0.39																
Architectu	0.07	0.07																
Total	0.46	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Hearths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer	0.07	0.07																
Architectu	0.01	0.01																
Landscape	0.02	0.02	< 0.005	0.15	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		0.42	0.42	< 0.005	< 0.005		0.42
Total	0.1	0.1	< 0.005	0.15	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	0.42	0.42	< 0.005	< 0.005		0.42

4.3.2. Mitigated

Source	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Hearths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer	0.39	0.39																
Architectu	0.07	0.07																
Landscape	0.2	0.19	0.01	1.64	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		5.17	5.17	< 0.005	< 0.005		5.19
Total	0.66	0.65	0.01	1.64	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	5.17	5.17	< 0.005	< 0.005		5.19
Daily, Winter (Max)																		
Hearths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer	0.39	0.39																
Architectu	0.07	0.07																
Total	0.46	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Annual																		
Hearths	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Consumer	0.07	0.07																
Architectu	0.01	0.01																
Landscape	0.02	0.02	< 0.005	0.15	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005		0.42	0.42	< 0.005	< 0.005		0.42
Total	0.1	0.1	< 0.005	0.15	< 0.005	< 0.005		< 0.005	< 0.005		< 0.005	0	0.42	0.42	< 0.005	< 0.005		0.42

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise												1.1	2.08	3.18	0.11	< 0.005		6.82
Enclosed Parking Structure												0	0	0	0	0		0
Total												1.1	2.08	3.18	0.11	< 0.005		6.82
Daily, Winter (Max)																		
Apartments Mid Rise												1.1	2.08	3.18	0.11	< 0.005		6.82
Enclosed Parking Structure												0	0	0	0	0		0
Total												1.1	2.08	3.18	0.11	< 0.005		6.82
Annual																		
Apartments Mid Rise												0.18	0.34	0.53	0.02	< 0.005		1.13
Enclosed Parking Structure												0	0	0	0	0		0
Total												0.18	0.34	0.53	0.02	< 0.005		1.13

4.4.2. Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise												1.1	2.08	3.18	0.11	< 0.005		6.82
Enclosed Parking Structure												0	0	0	0	0		0
Total												1.1	2.08	3.18	0.11	< 0.005		6.82
Daily, Winter (Max)																		
Apartments Mid Rise												1.1	2.08	3.18	0.11	< 0.005		6.82
Enclosed Parking Structure												0	0	0	0	0		0
Total												1.1	2.08	3.18	0.11	< 0.005		6.82
Annual																		
Apartments Mid Rise												0.18	0.34	0.53	0.02	< 0.005		1.13
Enclosed Parking Structure												0	0	0	0	0		0
Total												0.18	0.34	0.53	0.02	< 0.005		1.13

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise												7.47	0	7.47	0.75	0		26.1
Enclosed Parking Structure												0	0	0	0	0		0
Total												7.47	0	7.47	0.75	0		26.1

Daily, Winter (Max)																
Apartments Mid Rise											7.47	0	7.47	0.75	0	26.1
Enclosed Parking Structure											0	0	0	0	0	0
Total											7.47	0	7.47	0.75	0	26.1
Annual																
Apartments Mid Rise											1.24	0	1.24	0.12	0	4.33
Enclosed Parking Structure											0	0	0	0	0	0
Total											1.24	0	1.24	0.12	0	4.33

4.5.2. Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise												7.47	0	7.47	0.75	0		26.1
Enclosed Parking Structure												0	0	0	0	0		0
Total												7.47	0	7.47	0.75	0		26.1
Daily, Winter (Max)																		
Apartments Mid Rise												7.47	0	7.47	0.75	0		26.1
Enclosed Parking Structure												0	0	0	0	0		0
Total												7.47	0	7.47	0.75	0		26.1
Annual																		
Apartments Mid Rise												1.24	0	1.24	0.12	0		4.33
Enclosed Parking Structure												0	0	0	0	0		0
Total												1.24	0	1.24	0.12	0		4.33

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise																	0.13	0.13
Total																	0.13	0.13
Daily, Winter (Max)																		
Apartments Mid Rise																	0.13	0.13
Total																	0.13	0.13
Annual																		
Apartments Mid Rise																	0.02	0.02
Total																	0.02	0.02

4.6.2. Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Apartments Mid Rise																	0.13	0.13
Total																	0.13	0.13
Daily, Winter (Max)																		
Apartments Mid Rise																	0.13	0.13
Total																	0.13	0.13
Annual																		
Apartments Mid Rise																	0.02	0.02
Total																	0.02	0.02

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Equipment	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.7.2. Mitigated

Equipment	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Equipment	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.8.2. Mitigated

Equipment	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Equipment	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.9.2. Mitigated

Equipment	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Vegetation	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Species	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Avoided																		
Subtotal																		
Sequestered																		
Subtotal																		
Removed																		
Subtotal																		
Daily, Winter (Max)																		
Avoided																		
Subtotal																		
Sequestered																		
Subtotal																		
Removed																		
Subtotal																		
Annual																		
Avoided																		
Subtotal																		
Sequestered																		
Subtotal																		
Removed																		
Subtotal																		

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Vegetation	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Land Use	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Total																		
Daily, Winter (Max)																		
Total																		
Annual																		
Total																		

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Species	TOG	ROG	NOx	CO	SO_2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO_2	$NBCO_2$	CO_2T	CH_4	N_2O	R	CO_2e
Daily, Summer (Max)																		
Avoided																		

Subtotal
Sequestered
Subtotal
Removed
Subtotal

Daily, Winter (Max)
Avoided
Subtotal
Sequestered
Subtotal
Removed
Subtotal

Annual
Avoided
Subtotal
Sequestered
Subtotal
Removed
Subtotal

5. Activity Data
5.1. Construction Schedule

Phase Nan	Phase Type	Start Date	End Date	Days Per W	Work Days	Phase Description
Demolitior	Demolition	1/1/2025	########	5	42	
Site Prepa	Site Prepa	########	3/5/2025	5	4	
Grading	Grading	3/6/2025	########	5	8	
Building C	Building C	########	########	5	424	
Paving	Paving	########	########	5	21	
Architectu	Architectu	########	########	5	21	

5.2. Off-Road Equipment
5.2.1. Unmitigated

Phase Nan	Equipment	Fuel Type	Engine Tie	Number pe	Hours Per	Horsepow	Load Factor
Demolitior	Tractors/L	Diesel	Average	2	6	84	0.37
Demolitior	Rubber Tir	Diesel	Average	1	1	367	0.4
Demolitior	Concrete/I	Diesel	Average	1	8	33	0.73
Site Prepa	Graders	Diesel	Average	1	8	148	0.41
Site Prepa	Tractors/L	Diesel	Average	1	8	84	0.37
Grading	Graders	Diesel	Average	1	6	148	0.41
Grading	Rubber Tir	Diesel	Average	1	6	367	0.4
Grading	Tractors/L	Diesel	Average	1	7	84	0.37
Building C	Cranes	Diesel	Average	1	4	367	0.29
Building C	Forklifts	Diesel	Average	2	6	82	0.2
Building C	Tractors/L	Diesel	Average	2	8	84	0.37
Paving	Tractors/L	Diesel	Average	1	7	84	0.37
Paving	Cement ar	Diesel	Average	4	6	10	0.56
Paving	Pavers	Diesel	Average	1	7	81	0.42
Paving	Rollers	Diesel	Average	1	7	36	0.38
Architectu	Air Compr	Diesel	Average	1	6	37	0.48

5.2.2. Mitigated

Phase Nan	Equipment	Fuel Type	Engine Tie	Number pe	Hours Per	Horsepow	Load Factor
Demolitior	Tractors/L	Diesel	Average	2	6	84	0.37
Demolitior	Rubber Tir	Diesel	Average	1	1	367	0.4
Demolitior	Concrete/I	Diesel	Average	1	8	33	0.73
Site Prepa	Graders	Diesel	Average	1	8	148	0.41
Site Prepa	Tractors/L	Diesel	Average	1	8	84	0.37
Grading	Graders	Diesel	Average	1	6	148	0.41
Grading	Rubber Tir	Diesel	Average	1	6	367	0.4
Grading	Tractors/L	Diesel	Average	1	7	84	0.37
Building C	Cranes	Diesel	Average	1	4	367	0.29
Building C	Forklifts	Diesel	Average	2	6	82	0.2
Building C	Tractors/L	Diesel	Average	2	8	84	0.37
Paving	Tractors/L	Diesel	Average	1	7	84	0.37
Paving	Cement ar	Diesel	Average	4	6	10	0.56
Paving	Pavers	Diesel	Average	1	7	81	0.42
Paving	Rollers	Diesel	Average	1	7	36	0.38
Architectu	Air Compr	Diesel	Average	1	6	37	0.48

5.3. Construction Vehicles
5.3.1. Unmitigated

Phase Nan	Trip Type	One-Way T	Miles per T	Vehicle Mix
Demolition				
Demolitior	Worker	10	11.7	LDA,LDT1,LDT2
Demolitior	Vendor		8.4	HHDT,MHDT
Demolitior	Hauling	1.64	20	HHDT
Demolitior	Onsite truck			HHDT
Site Preparation				
Site Prepa	Worker	5	11.7	LDA,LDT1,LDT2
Site Prepa	Vendor		8.4	HHDT,MHDT
Site Prepa	Hauling	0	20	HHDT
Site Prepa	Onsite truck			HHDT
Grading				
Grading	Worker	7.5	11.7	LDA,LDT1,LDT2

Grading	Vendor		8.4	HHDT,MHDT
Grading	Hauling	0	20	HHDT
Grading	Onsite truck			HHDT
Building Construction				
Building Cı	Worker	19.1	11.7	LDA,LDT1,LDT2
Building Cı	Vendor	4.13	8.4	HHDT,MHDT
Building Cı	Hauling	0	20	HHDT
Building Cı	Onsite truck			HHDT
Paving				
Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving	Vendor		8.4	HHDT,MHDT
Paving	Hauling	0	20	HHDT
Paving	Onsite truck			HHDT
Architectural Coating				
Architectu	Worker	3.81	11.7	LDA,LDT1,LDT2
Architectu	Vendor		8.4	HHDT,MHDT
Architectu	Hauling	0	20	HHDT
Architectu	Onsite truck			HHDT

5.3.2. Mitigated

Phase Nan	Trip Type	One-Way T	Miles per T	Vehicle Mix
Demolition				
Demolitior	Worker	10	11.7	LDA,LDT1,LDT2
Demolitior	Vendor		8.4	HHDT,MHDT
Demolitior	Hauling	1.64	20	HHDT
Demolitior	Onsite truck			HHDT
Site Preparation				
Site Prepai	Worker	5	11.7	LDA,LDT1,LDT2
Site Prepai	Vendor		8.4	HHDT,MHDT
Site Prepai	Hauling	0	20	HHDT
Site Prepai	Onsite truck			HHDT
Grading				
Grading	Worker	7.5	11.7	LDA,LDT1,LDT2
Grading	Vendor		8.4	HHDT,MHDT
Grading	Hauling	0	20	HHDT
Grading	Onsite truck			HHDT
Building Construction				
Building Cı	Worker	19.1	11.7	LDA,LDT1,LDT2
Building Cı	Vendor	4.13	8.4	HHDT,MHDT
Building Cı	Hauling	0	20	HHDT
Building Cı	Onsite truck			HHDT
Paving				
Paving	Worker	17.5	11.7	LDA,LDT1,LDT2
Paving	Vendor		8.4	HHDT,MHDT
Paving	Hauling	0	20	HHDT
Paving	Onsite truck			HHDT
Architectural Coating				
Architectu	Worker	3.81	11.7	LDA,LDT1,LDT2
Architectu	Vendor		8.4	HHDT,MHDT
Architectu	Hauling	0	20	HHDT
Architectu	Onsite truck			HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Str	PM10 Redı	PM2.5 Reduction

5.5. Architectural Coatings

Phase Nan	Residentia	Residentia	Non-Resid	Non-Resid	Parking Area Coated (sq ft)
Architectu	36936	12312	0	0	

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Nan	Material Im	Material Ex	Acres Grac	Material D	Acres Paved (acres)
Demolitior	0	0	0	6000	
Site Preparation			2	0	
Grading			6	0	
Paving	0	0	0	0	0

5.6.2. Construction Earthmoving Control Strategies

Control Str	Frequency	PM10 Redı	PM2.5 Reduction

5.7. Construction Paving

Land Use	Area Pavec	% Asphalt
Apartments Mid Rise		0
Apartments Mid Rise		0
Enclosed F	0	100
Enclosed F	0	100

5.8. Construction Electricity Consumption and Emissions Factors

Year	kWh per Yc	CO2	CH4	N2O
2025	0	204	0.03	< 0.005
2026	0	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use T	Trips/Weel	Trips/Satu	Trips/Sunc	Trips/Year	VMT/Week	VMT/Satur	VMT/Sund	VMT/Year
Apartment	70.7	63.8	53.2	24538	695	628	523	241322

Apartment	32.6	29.5	24.5	11325	321	290	241	111379
Enclosed F	0	0	0	0	0	0	0	0
Enclosed F	0	0	0	0	0	0	0	0

5.9.2. Mitigated

Land Use T	Trips/Weel	Trips/Satu	Trips/Sunc	Trips/Year	VMT/Week	VMT/Satur	VMT/Sund	VMT/Year
Apartment	70.7	63.8	53.2	24538	695	628	523	241322
Apartment	32.6	29.5	24.5	11325	321	290	241	111379
Enclosed F	0	0	0	0	0	0	0	0
Enclosed F	0	0	0	0	0	0	0	0

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Typ	Unmitigated (number)
Apartments Mid Rise	
Wood Fire	0
Gas Firepl	0
Propane Fi	0
Electric Fir	0
No Firepla	0
Wood Fire	0
Gas Firepl	0
Propane Fi	0
Electric Fir	0
No Firepla	0
Conventio	0
Catalytic V	0
Non-Catal	0
Pellet Woo	0
Conventio	0
Catalytic V	0
Non-Catal	0
Pellet Woo	0

5.10.1.2. Mitigated

Hearth Typ	Unmitigated (number)
Apartments Mid Rise	
Wood Fire	0
Gas Firepl	0
Propane Fi	0
Electric Fir	0
No Firepla	0
Wood Fire	0
Gas Firepl	0
Propane Fi	0
Electric Fir	0
No Firepla	0
Conventio	0
Catalytic V	0
Non-Catal	0
Pellet Woo	0
Conventio	0
Catalytic V	0
Non-Catal	0
Pellet Woo	0

5.10.2. Architectural Coatings

Residentia	Residentia	Non-Resid	Non-Resid	Parking Area Coated (sq ft)
36936	12312	0	0	

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0
Summer D	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0
Summer D	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Land Use	Electricity	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartment	84288	204	0.033	0.004	0
Apartment	38902	204	0.033	0.004	0
Enclosed F	33614	204	0.033	0.004	0
Enclosed F	11205	204	0.033	0.004	0

5.11.2. Mitigated

Land Use	Electricity	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartment	84288	204	0.033	0.004	0
Apartment	38902	204	0.033	0.004	0
Enclosed F	33614	204	0.033	0.004	0
Enclosed F	11205	204	0.033	0.004	0

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Wa	Outdoor Water (gal/year)
Apartment	392886	0
Apartment	181332	0
Enclosed F	0	0
Enclosed F	0	0

5.12.2. Mitigated

Land Use	Indoor Wa	Outdoor Water (gal/year)
Apartment	392886	0
Apartment	181332	0
Enclosed F	0	0
Enclosed F	0	0

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton	Cogeneration (kWh/year)
Apartment	9.55	
Apartment	4.31	
Enclosed F	0	
Enclosed F	0	

5.13.2. Mitigated

Land Use	Waste (ton	Cogeneration (kWh/year)
Apartment	9.55	
Apartment	4.31	
Enclosed F	0	
Enclosed F	0	

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use T	Equipment	Refrigeran	GWP	Quantity (k	Operation	Service Le	Times Serviced
Apartment	Average ro	R-410A	2088	< 0.005	2.5	2.5	10
Apartment	Household	R-134a	1430	0.12	0.6	0	1
Apartment	Average ro	R-410A	2088	< 0.005	2.5	2.5	10
Apartment	Household	R-134a	1430	0.12	0.6	0	1

5.14.2. Mitigated

Land Use T	Equipment	Refrigeran	GWP	Quantity (k	Operation	Service Le	Times Serviced
Apartment	Average ro	R-410A	2088	< 0.005	2.5	2.5	10
Apartment	Household	R-134a	1430	0.12	0.6	0	1
Apartment	Average ro	R-410A	2088	< 0.005	2.5	2.5	10
Apartment	Household	R-134a	1430	0.12	0.6	0	1

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment	Fuel Type	Engine Tier	Number pe	Hours Per	Horsepow	Load Factor

5.15.2. Mitigated

Equipment	Fuel Type	Engine Tier	Number pe	Hours Per	Horsepow	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment	Fuel Type	Number pe	Hours per	Hours per	Horsepow	Load Factor

5.16.2. Process Boilers

Equipment	Fuel Type	Number	Boiler Rati	Daily Heat	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation	Vegetation	Initial Acre	Final Acres

5.18.1.2. Mitigated

Vegetation	Vegetation	Initial Acre	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass C	Initial Acre	Final Acres

5.18.1.2. Mitigated

Biomass C	Initial Acre	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will conti

Climate H	Result for I Unit

Temperatu	7.19	annual days of extreme heat
Extreme Pr	8.75	annual days with precipitation above 20 mm
Sea Level Rise		meters of inundation depth
Wildfire	6.01	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 clim
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and d
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, populati

6.2. Initial Climate Risk Scores

Climate Ha	Exposure S	Sensitivity	Adaptive C	Vulnerability Score
Temperatu	N/A	N/A	N/A	N/A
Extreme Pr	3	0	0	N/A
Sea Level F	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to ada
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Ha	Exposure S	Sensitivity	Adaptive C	Vulnerability Score
Temperatu	N/A	N/A	N/A	N/A
Extreme Pr	3	1	1	3
Sea Level F	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to ada
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	
AQ-Ozone	3.83
AQ-PM	25.3
AQ-DPM	59.8
Drinking W	7.43
Lead Risk I	32.8
Pesticides	0
Toxic Relea	58.5
Traffic	98.4
Effect Indicators	
CleanUp S	78
Groundwa	44.3
Haz Waste	72.6
Impaired V	90.1
Solid Wast	52.9
Sensitive Population	
Asthma	32
Cardio-vas	22.9
Low Birth V	11.2
Socioeconomic Factor Indicators	
Education	2.71
Housing	33.7
Linguistic	12.3
Poverty	17.2
Unemployn	9.72

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	
Above Pov	89.33658
Employed	99.06326
Median HI	90.77377
Education	
Bachelor's	96.99731
High schoo	100
Preschool	95.7141
Transportation	
Auto Acce	42.10189
Active com	90.4658
Social	
2-parent h	89.58039
Voting	98.20352
Neighborhood	
Alcohol av	12.98601

Park acces	81.35506
Retail dens	90.87643
Supermark	72.34698
Tree canop	96.61234
Housing	
Homeown	37.0974
Housing ha	60.43886
Low-inc hc	54.20249
Low-inc re	66.84204
Uncrowde	89.4649
Health Outcomes	
Insured ad	87.48877
Arthritis	0
Asthma ER	59
High Blooc	0
Cancer (ex	0
Asthma	0
Coronary H	0
Chronic Ol	0
Diagnosed	0
Life Expect	93
Cognitively	93
Physically	87
Heart Attac	88
Mental Hea	0
Chronic Ki	0
Obesity	0
Pedestrian	76
Physical H	0
Stroke	0
Health Risk Behaviors	
Binge Drin	0
Current Sn	0
No Leisure	0
Climate Change Exposures	
Wildfire Ris	0.2
SLR Inunda	26
Children	79
Elderly	8.7
English Sp	75
Foreign-bo	22
Outdoor W	90
Climate Change Adaptive Capacity	
Impervious	63
Traffic Den	81
Traffic Acc	53
Other Indices	
Hardship	2.2
Other Decision Support	
2016 Votin	97

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroS	15
Healthy Pla	99
Project Loc	No
Project Loc	No
Project Loc	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

Measure T	Co-Benefits Achieved

7.5. Evaluation Scorecard

Category	Number of Total Point	Max Possil	Weighted Score

7.6. Health & Equity Custom Measures

Measure T	Sponsor

8. User Changes to Default Data

Screen	Justification
Land Use	dwelling unit #s, lot acreage, and # of parking spaces based on project details provided in PD
Constructi	construction schedule adjusted off-model to reflect conservative estimate of 24-month construction duration
Constructi	VOC content adjusted to reflect VOC limits outlined in BAAQMD Rule 8-3
Operations	no fireplaces included in project design
Operations	default NG consumption converted to electricity consumption off-model as project would be all-electric

Appendix C

Biological Resources
Supplemental Information

Special-Status Plants Known to Occur in the Project Region and their Potential to Occur in the Survey Area

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Franciscan onion *Allium peninsulare* var. *franciscanum*	–	–	1B.2	Ultramafic. Cismontane woodland, valley and foothill grassland. Clay soils; often on serpentine; sometimes on volcanics. Dry hillsides. 15–1150 feet in elevation. Blooms (April), May–June. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Napa false indigo *Amorpha californica var. napensis*	–	–	1B.2	Openings in forest or woodland or in chaparral. 100–2410 feet in elevation. Blooms April–July. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Bent-flowered fiddleneck *Amsinckia lunaris*	–	–	1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. 10–2610 feet in elevation. Blooms March–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Franciscan manzanita *Arctostaphylos franciscana*	FE	–	1B.1	Ultramafic. Chaparral. Serpentine outcrops in chaparral. 195–985 feet in elevation. Blooms February–April. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Bruno Mountain manzanita *Arctostaphylos imbricata*	–	SE	1B.1	Chaparral, coastal scrub. Mostly known from a few sandstone outcrops in chaparral. 900–1215 feet in elevation. Blooms February–May. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Mt. Tamalpais manzanita *Arctostaphylos montana* ssp. *montana*	–	–	1B.3	Ultramafic. Chaparral, valley and foothill grassland. Serpentine slopes in chaparral and grassland. 490–2230 feet in elevation. Blooms February–April. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Presidio manzanita *Arctostaphylos montana* ssp. *ravenii*	FE	SE	1B.1	Chaparral, coastal prairie, coastal scrub, ultramafic. Open, rocky serpentine slopes. 150–705 feet in elevation. Blooms February–March. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Montara manzanita *Arctostaphylos montaraensis*	–	–	1B.2	Chaparral, coastal scrub. Slopes and ridges. 885–1510 feet in elevation. Blooms January–March. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Pacific manzanita *Arctostaphylos pacifica*	–	SE	1B.1	Coastal scrub, chaparral. Blooms February–April. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Pallid manzanita *Arctostaphylos pallida*	FT	SE	1B.1	Grows on uplifted marine terraces on siliceous shale or thin chert. May require fire. 590–1510 feet in elevation. Blooms December–March. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Marin manzanita *Arctostaphylos virgata*	–	–	1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, north coast coniferous forest. On sandstone or granitic. 5–2625 feet in elevation. Blooms January–March. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Marsh sandwort *Arenaria paludic*ola	FE	SE	1B.1	Wetland. Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 10–560 feet in elevation. Blooms May–August. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Alkali milk-vetch *Astragalus tener* var. *tener*	–	–	1B.2	Wetland. Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0–550 feet in elevation. Blooms March–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Thurber's reed grass *Calamagrostis crassiglumis*	–	–	2B.1	Wetland. Coastal scrub, marshes and swamps. Usually in marshy swales surrounded by grassland or coastal scrub. 15–165 feet in elevation. Blooms May–August. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tiburon mariposa-lily *Calochortus tiburonensis*	FT	ST	1B.1	Ultramafic. Valley and foothill grassland. On open, rocky, slopes in serpentine grassland. 165–490 feet in elevation. Blooms March–June. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Coastal bluff morning-glory *Calystegia purpurata* ssp. *saxicola*	–	–	1B.2	Coastal dunes, coastal scrub, coastal bluff scrub, north coast coniferous forest. 35–345 feet in elevation. Blooms (March), April–September. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Bristly sedge *Carex comosa*	–	–	2B.1	Wetland. Marshes and swamps, coastal prairie, valley and foothill grassland. Lake margins, wet places; site below sea level is on a Delta island. 15–5315 feet in elevation. Blooms May–September. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Northern meadow sedge *Carex praticola*	–	–	2B.2	Wetland. Meadows and seeps. Moist to wet meadows. 50–10500 feet in elevation. Blooms May–July. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tiburon paintbrush *Castilleja affinis* var. *neglecta*	FE	ST	1B.2	Ultramafic. Valley and foothill grassland. Rocky serpentine sites. 395–1310 feet in elevation. Blooms April–June. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Pappose tarplant *Centromadia parryi* ssp. *parryi*	–	–	1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 5–1380 feet in elevation. Blooms May–November. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Point Reyes salty bird's-beak *Chloropyron maritimum* ssp. *palustre*	–	–	1B.2	Salt marsh, Wetland. Coastal salt marsh. Usually in coastal salt marsh with Salicornia, Distichlis, Jaumea, Spartina, etc. 0–375 feet in elevation. Blooms June–October. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Soft salty bird's-beak *Chloropyron molle* ssp. *molle*	FE	SR	1B.2	Wetland. Coastal salt marsh. In coastal salt marsh with Distichlis, Salicornia, Frankenia, etc. 0–15 feet in elevation. Blooms July–November. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco Bay spineflower *Chorizanthe cuspidata* var. *cuspidata*	–	–	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Closely related to C. pungens. Sandy soil on terraces and slopes. 10–705 feet in elevation. Blooms April–July (August). Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Robust spineflower *Chorizanthe robusta* var. *robusta*	FE	–	1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. 30–805 feet in elevation. Blooms April–September. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Mt. Tamalpais thistle *Cirsium hydrophilum* var. *vaseyi*	–	–	1B.2	Wetland. Broadleafed upland forest, chaparral, meadows and seeps. Serpentine seeps and streams in chaparral and woodland. 590–2000 feet in elevation. Blooms May–August. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Compact cobwebby thistle *Cirsium occidentale* var. *compactum*	–	–	1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub. On dunes and on clay in chaparral; also in grassland. 15–490 feet in elevation. Blooms April–June. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Presidio clarkia *Clarkia franciscana*	FE	SE	1B.1	Ultramafic. Coastal scrub, valley and foothill grassland. Serpentine outcrops in grassland or scrub. 65–1000 feet in elevation. Blooms May–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Round-headed collinsia *Collinsia corymbosa*	–	–	1B.2	Coastal dunes. 35–100 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Silverskin lichen *Dermatocarpon meiophyllizum*	–	–	2B.3	Preferred habitat is undisturbed, exposed streams with large rocks or bedrock at high elevations, but it is also found in cold, deep canyons at lower elevations. 195–7545 feet in elevation. Blooms . Lichen.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Western leatherwood *Dirca occidentalis*	–	–	1B.2	. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. 80–1395 feet in elevation. Blooms January–March (April). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tiburon buckwheat *Eriogonum luteolum* var. *caninum*	–	–	1B.2	Ultramafic. Chaparral, valley and foothill grassland, cismontane woodland, coastal prairie. Serpentine soils; sandy to gravelly sites. 0–2295 feet in elevation. Blooms May–September. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Joaquin spearscale *Extriplex joaquinana*	–	–	1B.2	Alkali playa. Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with Distichlis spicata, Frankenia, etc. 5–2740 feet in elevation. Blooms April–October. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Minute pocket moss *Fissidens pauperculus*	–	–	1B.2	Redwood. North coast coniferous forest. Moss growing on damp soil along the coast. In dry streambeds and on stream banks. 35–3360 feet in elevation. Blooms . Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Marin checker lily *Fritillaria lanceolata* var. *tristulis*	–	–	1B.1	Ultramafic. Coastal bluff scrub, coastal scrub, coastal prairie. Occurrences reported from canyons and riparian areas as well as rock outcrops; often on serpentine. 50–490 feet in elevation. Blooms February–May. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Fragrant fritillary *Fritillaria liliacea*	–	–	1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 10–1310 feet in elevation. Blooms February–April. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Blue coast gilia *Gilia capitata* ssp. *chamissonis*	–	–	1B.1	Coastal dunes, coastal scrub. 10–655 feet in elevation. Blooms April–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Dark-eyed gilia *Gilia millefoliata*	–	–	1B.2	Coastal dunes. 5–195 feet in elevation. Blooms April–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Diablo helianthella *Helianthella castanea*	–	–	1B.2	Usually in chaparral/oak woodland interface in rocky, azonal soils. Often in partial shade. 150–3510 feet in elevation. Blooms March–June. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Congested-headed hayfield tarplant *Hemizonia congesta* ssp. *congesta*	–	–	1B.2	Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. 65–2135 feet in elevation. Blooms April–November. Annual.	Not expected to occur. The site has been developed for too long to support natural habitat suitable for congested-headed hayfield tarplant.
Short-leaved evax *Hesperevax sparsiflora* var. *brevifolia*	–	–	1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Sandy bluffs and flats. 0–705 feet in elevation. Blooms March–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Marin western flax (Marin Dwarf-flax) *Hesperolinon congestum*	FT	ST	1B.1	Ultramafic. Chaparral, valley and foothill grassland. In serpentine barrens and in serpentine grassland and chaparral. 195–1215 feet in elevation. Blooms April–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Water star-grass *Heteranthera dubia*	–	–	2B.2	Marshes and swamps. Alkaline, still or slow-moving water. Requires a pH of 7 or higher, usually in slightly eutrophic waters. 50–4955 feet in elevation. Blooms July–October. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Loma Prieta hoita *Hoita strobilina*	–	–	1B.1	Ultramafic. Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. 195–3200 feet in elevation. Blooms May–July (August),(October). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Santa Cruz tarplant *Holocarpha macradenia*	FT	SE	1B.1	Coastal prairie, coastal scrub, valley and foothill grassland. Light, sandy soil or sandy clay; often with nonnatives. 35–720 feet in elevation. Blooms June–October. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	–	–	1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. 15–705 feet in elevation. Blooms April–September. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Point Reyes horkelia *Horkelia marinensis*	–	–	1B.2	Coastal dunes, coastal prairie, coastal scrub. Sandy flats and dunes near coast; in grassland or scrub plant communities. 5–2545 feet in elevation. Blooms May–September. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Thin-lobed horkelia *Horkelia tenuiloba*	–	–	1B.2	Broadleaved upland forest, chaparral, valley and foothill grassland. Sandy soils; mesic openings. 165–1640 feet in elevation. Blooms May–July (August). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Island tube lichen *Hypogymnia schizidiata*	–	–	1B.3	Chaparral, closed-cone coniferous forest. On bark and wood of hardwoods and conifers. 1180–1330 feet in elevation. Blooms . Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Small groundcone *Kopsiopsis hookeri*	–	–	2B.3	North coast coniferous forest. Open woods, shrubby places, generally on Gaultheria shallon. 395–4710 feet in elevation. Blooms April–August. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Beach layia *Layia carnosa*	FE	ST	1B.1	Coastal dunes, coastal scrub. On sparsely vegetated, semi-stabilized dunes, usually behind foredunes. 0–100 feet in elevation. Blooms March–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Rose leptosiphon *Leptosiphon rosaceus*	–	–	1B.1	Coastal bluff scrub. 35–460 feet in elevation. Blooms April–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco lessingia *Lessingia germanorum*	FE	SE	1B.1	Coastal scrub. On remnant dunes. Open sandy soils relatively free of competing plants. 10–510 feet in elevation. Blooms (June), July–November. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tamalpais lessingia *Lessingia micradenia* var. *micradenia*	–	–	1B.2	Ultramafic. Chaparral, valley and foothill grassland. Usually on serpentine, in serpentine grassland or serpentine chaparral. Often on roadsides. 195–1000 feet in elevation. Blooms (June), July–October. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Arcuate bush-mallow *Malacothamnus arcuatus*	–	–	1B.2	Chaparral, cismontane woodland. Gravelly alluvium. 5–2410 feet in elevation. Blooms April–September. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Marsh microseris *Microseris paludosa*	–	–	1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. 15–985 feet in elevation. Blooms April–June (July). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Northern curly-leaved monardella *Monardella sinuata* ssp. *nigrescens*	–	–	1B.2	Coastal dunes, coastal scrub, chaparral, lower montane coniferous forest. Sandy soils. 0–985 feet in elevation. Blooms (April), May–July (August),(September). Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Marin County navarretia *Navarretia rosulata*	–	–	1B.2	Ultramafic. Closed-cone coniferous forest, chaparral. Dry, open rocky places; can occur on serpentine. 655–2085 feet in elevation. Blooms May–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
White-rayed pentachaeta *Pentachaeta bellidiflora*	FE	SE	1B.1	Ultramafic. Valley and foothill grassland, cismontane woodland. Open dry rocky slopes and grassy areas, often on soils derived from serpentine bedrock. 115–2000 feet in elevation. Blooms March–May. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Choris' popcornflower *Plagiobothrys chorisianus* var. *chorisianus*	–	–	1B.2	Chaparral, coastal scrub, coastal prairie. Mesic sites. 50–525 feet in elevation. Blooms March–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco popcornflower *Plagiobothrys diffusus*	–	SE	1B.1	Valley and foothill grassland, coastal prairie. Historically from grassy slopes with marine influence. 150–1180 feet in elevation. Blooms March–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Hairless popcornflower *Plagiobothrys glaber*	–	–	1A	Salt marsh, Vernal pool, Wetland. Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows. 15–590 feet in elevation. Blooms March–May. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area, and this species is extinct.
North Coast semaphore grass *Pleuropogon hooverianus*	–	ST	1B.1	Wetland. Broadleafed upland forest, meadows and seeps, north coast coniferous forest. Wet grassy, usually shady areas, sometimes freshwater marsh; associated with forest environments. 150–3805 feet in elevation. Blooms April–June. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Oregon polemonium *Polemonium carneum*	–	–	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest. 0–6005 feet in elevation. Blooms April–September. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tamalpais oak *Quercus parvula var. tamalpaisensis*	–	–	1B.3	Lower montane coniferous forest. 330–2460 feet in elevation. Blooms March–April. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Adobe sanicle *Sanicula maritima*	–	–	1B.1	Ultramafic. Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie. Moist clay or ultramafic soils. 100–785 feet in elevation. Blooms February–May. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Chaparral ragwort *Senecio aphanactis*	–	–	2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 65–2805 feet in elevation. Blooms January–April (May). Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Point Reyes checkerbloom *Sidalcea calycosa* ssp. *rhizomata*	–	–	1B.2	Wetland. Marshes and swamps. Freshwater marshes near the coast. 15–310 feet in elevation. Blooms April–September. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Scouler's catchfly *Silene scouleri* ssp. *scouleri*	–	–	2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. 0–1970 feet in elevation. Blooms (March–May)June–August(September). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco campion *Silene verecunda* ssp. *verecunda*	–	–	1B.2	Ultramafic. Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie. Often on mudstone or shale; one site on serpentine. 100–2115 feet in elevation. Blooms (February), March–June (August). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Long-styled sand-spurrey *Spergularia macrotheca* var. *longistyla*	–	–	1B.2	Marshes and swamps, meadows and seeps. Alkaline. 0–835 feet in elevation. Blooms February–May. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Santa Cruz microseris *Stebbinsoseris decipiens*	–	–	1B.2	Ultramafic. Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 35–1640 feet in elevation. Blooms April–May. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tamalpais jewelflower *Streptanthus batrachopus*	–	–	1B.3	Ultramafic. Closed-cone coniferous forest, chaparral. Talus serpentine outcrops. 1100–2200 feet in elevation. Blooms April–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tiburon jewelflower *Streptanthus glandulosus* ssp. *niger*	FE	SE	1B.1	Ultramafic. Valley and foothill grassland. Shallow, rocky serpentine slopes. 100–490 feet in elevation. Blooms May–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Mt. Tamalpais bristly jewelflower *Streptanthus glandulosus* ssp. *pulchellus*	–	–	1B.2	Ultramafic. Chaparral, valley and foothill grassland. Serpentine slopes. 490–2625 feet in elevation. Blooms May–July (August). Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
California seablite *Suaeda californica*	FE	–	1B.1	Wetland. Marshes and swamps. Margins of coastal salt marshes. 0–15 feet in elevation. Blooms July–October. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Suisun Marsh aster *Symphyotrichum lentum*	–	–	1B.2	Wetland. Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0–100 feet in elevation. Blooms (April), May–November. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Two-fork clover *Trifolium amoenum*	FE	–	1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 15–1015 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Saline clover *Trifolium hydrophilum*	–	–	1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–985 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco owl's-clover *Triphysaria floribunda*	–	–	1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate (such as at Pt. Reyes). 5–490 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Coastal triquetrella *Triquetrella californica*	–	–	1B.2	Coastal bluff scrub, coastal scrub. Grows within 30m from the coast in coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. 35–330 feet in elevation. Blooms . Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Oval-leaved viburnum *Viburnum ellipticum*	–	–	2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. 705–4595 feet in elevation. Blooms May–June. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Scouler's catchfly *Silene scouleri* ssp. *scouleri*	–	–	2B.2	Coastal bluff scrub, coastal prairie, valley and foothill grassland. 0–1970 feet in elevation. Blooms (March–May)June–August(September). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco campion *Silene verecunda ssp. verecunda*	–	–	1B.2	Ultramafic. Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie. Often on mudstone or shale; one site on serpentine. 100–2115 feet in elevation. Blooms (February), March–June (August). Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Long-styled sand-spurrey *Spergularia macrotheca* var. *longistyla*	–	–	1B.2	Marshes and swamps, meadows and seeps. Alkaline. 0–835 feet in elevation. Blooms February–May. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Santa Cruz microseris *Stebbinsoseris decipiens*	–	–	1B.2	Ultramafic. Broadleafed upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Open areas in loose or disturbed soil, usually derived from sandstone, shale or serpentine, on seaward slopes. 35–1640 feet in elevation. Blooms April–May. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tamalpais jewelflower *Streptanthus batrachopus*	–	–	1B.3	Ultramafic. Closed-cone coniferous forest, chaparral. Talus serpentine outcrops. 1100–2200 feet in elevation. Blooms April–July. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Tiburon jewelflower *Streptanthus glandulosus* ssp. *niger*	FE	SE	1B.1	Ultramafic. Valley and foothill grassland. Shallow, rocky serpentine slopes. 100–490 feet in elevation. Blooms May–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Mt. Tamalpais bristly jewelflower *Streptanthus glandulosus* ssp. *pulchellus*	–	–	1B.2	Ultramafic. Chaparral, valley and foothill grassland. Serpentine slopes. 490–2625 feet in elevation. Blooms May–July (August). Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
California seablite *Suaeda californica*	FE	–	1B.1	Wetland. Marshes and swamps. Margins of coastal salt marshes. 0–15 feet in elevation. Blooms July–October. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Suisun Marsh aster *Symphyotrichum lentum*	–	–	1B.2	Wetland. Marshes and swamps (brackish and freshwater). Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. 0–100 feet in elevation. Blooms (April), May–November. Geophyte.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Two-fork clover *Trifolium amoenum*	FE	–	1B.1	Valley and foothill grassland, coastal bluff scrub. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. 15–1015 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Saline clover *Trifolium hydrophilum*	–	–	1B.2	Wetland. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0–985 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco owl's-clover *Triphysaria floribunda*	–	–	1B.2	Coastal prairie, coastal scrub, valley and foothill grassland. On serpentine and non-serpentine substrate (such as at Pt. Reyes). 5–490 feet in elevation. Blooms April–June. Annual.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Name	Federal Status[1]	State Status[1]	CRPR[1]	Habitat	Potential to Occur in the Survey Area[2]
Coastal triquetrella *Triquetrella californica*	–	–	1B.2	Coastal bluff scrub, coastal scrub. Grows within 30m from the coast in coastal scrub, grasslands and in open gravels on roadsides, hillsides, rocky slopes, and fields. On gravel or thin soil over outcrops. 35–330 feet in elevation. Blooms . Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Oval-leaved viburnum *Viburnum ellipticum*	–	–	2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. 705–4595 feet in elevation. Blooms May–June. Perennial.	Not expected to occur. Habitat suitable for this species is not present in the project area.

Notes: CRPR = California Rare Plant Rank; CNDDB = California Natural Diversity Database.

[1&2] Legal Status Definitions

Federal:
FE Endangered (legally protected)
FT Threatened (legally protected)

State:
SE Endangered (legally protected)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:
0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present within the survey area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available within the survey area; however, there are little to no other indicators that the species might be present.

Likely to occur: All of the species life history requirements can be met by habitat present in the survey area, and populations/occurrences are known to occur in the immediate vicinity.

Sources: CNDDB 2024; CNPS 2024.

Special-Status Wildlife Known to Occur in the Project Region and their Potential to Occur on the Survey Area

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
Reptiles and Amphibians				
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT	ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	Not expected to occur. The project area is outside of this species' range, and habitat suitable for this species is not present in the project area.
California giant salamander *Dicamptodon ensatus*	–	SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Not expected to occur. Habitat suitable for this species is not present in the project area.
California red-legged frog *Rana draytonii*	FT	SSC	Artificial flowing waters, artificial standing waters, freshwater marsh, marsh & swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, south coast flowing waters. Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not expected to occur. Habitat suitable for this species is not present in the project area.
California tiger salamander - central California DPS *Ambystoma californiense* pop. 1	FT	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Foothill yellow-legged frog (North Coast DPS) *Rana boylii* pop. 1	–	SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.	Not expected to occur. Habitat suitable for this species is not present in the project area.
Green sea turtle *Chelonia mydas*	FT	–	Marine sea turtle; inhabits the Pacific ocean.	Not expected to occur. Habitat suitable for this species is not present in the project area.
San Francisco gartersnake *Thamnophis sirtalis tetrataenia*	FE	SE, FP	Vicinity of freshwater marshes, ponds and slow-moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	Not expected to occur. The project area is outside of this species' range.

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
Northwestern pond turtle *Actinemys marmorata*	FP	SSC	Ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Birds				
Alameda song sparrow *Melospiza melodia pusillula*	–	SSC	Salt marsh. Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits pickleweed (Salicornia spp.) marshes; nests low in Grindelia bushes (high enough to escape high tides) and in pickleweed.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Bank swallow *Riparia riparia*	–	ST	Riparian scrub, riparian woodland. Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Burrowing owl *Athene cunicularia*	–	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
California black rail *Laterallus jamaicensis coturniculus*	–	ST, FP	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
California least tern *Sternula antillarum browni*	FE	SE, FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
California Ridgway's rail *Rallus obsoletus obsoletus*	FE	SE, FP	Brackish marsh, marsh and swamp, salt marsh, wetlands. Salt-water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Northern harrier *Circus hudsonius*	–	SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	–	SSC	Marsh and swamp. Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
San Pablo song sparrow *Melospiza melodia samuelis*	–	SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the pickleweed (Salicornia spp.) marshes; nests in Grindelia bordering slough channels.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Short-eared owl *Asio flammeus*	–	SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Western snowy plover *Charadrius nivosus nivosus*	FT	SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Yellow rail *Coturnicops noveboracensis*	–	SSC	Freshwater marsh, meadow and seep. Summer resident in eastern Sierra Nevada in Mono County. Fresh-water marshlands.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	–	SSC	Marsh and swamp, wetland. Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Fish				
Coho salmon - central California coast ESU *Oncorhynchus kisutch* pop. 4	FE	SE	State listing includes populations south of Punta Gorda. Require beds of loose, silt-free, coarse gravel for spawning. Also need cover, cool water and sufficient dissolved oxygen.	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.
Eulachon *Thaleichthys pacificus*	FT	–	Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand and woody debris	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.
Green sturgeon - southern DPS *Acipenser medirostris* pop. 1	FT	–	Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11–15 C) sections of mainstem rivers in deep pools (25–30 feet) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
Hardhead *Mylopharodon conocephalus*	–	SSC	Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.
Longfin smelt *Spirinchus thaleichthys*	FC	ST, SSC	Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.
Sacramento perch *Archoplites interruptus*	–	SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.
Tidewater goby *Eucyclogobius newberryi*	FE	SSC	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not expected to occur. Aquatic habitat suitable for this species is not present in or near the project area.
Invertebrates				
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT	–	Coastal dunes, ultramafic, valley and foothill grassland. Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. Plantago erecta is the primary host plant; Orthocarpus densiflorus and O. purpurscens are the secondary host plants.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE	–	Coastal scrub. Restricted to the northern coastal scrub of the San Francisco peninsula. Hostplant is Viola pedunculata. Most adults found on east-facing slopes; males congregate on hilltops in search of females.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Crotch bumble bee *Bombus crotchii*	–	SC	Found primarily in California: mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	Not expected to occur. Sausalito is outside of this species' range in California (CDFW 2023).

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
Mission blue butterfly *Icaricia icarioides missionensis*	FE	–	Coastal prairie Inhabits grasslands of the San Francisco peninsula. Three larval host plants: Lupinus albifrons, Lupinus variicolor, and Lupinus formosus, of which Lupinus albifrons is favored.	Not expected to occur. The northeastern portion of Sausalito, where this project is located, is considered to be outside of this species range (USFWS 2024). Although this species is known to occur in Fort Baker (1 mile south of the project area), it is unlikely that Mission blue butterfly would disperse from Fort Baker into the project area because the roads, structures, and landscaping development between these locations would serve as a barrier to dispersal.
Monarch - California overwintering population *Danaus plexippus plexippus* pop. 1	FC	–	Closed-cone coniferous forest Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (e.g., eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE	–	Valley and foothill grassland. Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is Sedum spathulifolium.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Western bumble bee *Bombus occidentalis*	–	SC	Once common throughout much of its range, in California, this species is currently largely restricted to high elevation sites in the Sierra Nevada and the northern California coast. Habitat includes open grassy areas, chaparral, scrub, and meadows. Requires suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	Not expected to occur. The project area is outside of this species' current range.
Mammals				
Alameda Island mole *Scapanus latimanus parvus*	–	SSC	Valley and foothill grassland. Only known from Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils. avoids flooded soils.	Not expected to occur. Although Sausalito is within the historic range for western bumble bee, the species has undergone a decline and is no longer found in the San Francisco bay area (CDFW 2023).

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
American badger *Taxidea taxus*	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. Habitat is poor-quality for American badger in the project area, and this species does not tolerate high levels of human disturbance such as would be found in Sausalito.
Pallid bat *Antrozous pallidus*	–	SSC	Most common in open, dry habitats with rocky areas for roosting. Tree roosting has also been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**May occur.** Pallid bat may be found roosting in large diameter trees on site or in abandoned structures.
Point Reyes jumping mouse *Zapus trinotatus orarius*	–	SSC	Primarily in bunch grass marshes on the uplands of Point Reyes. Also present in coastal scrub, grassland, and meadows. Eats mainly grass seeds with some insects and fruit taken. Builds grassy nests on ground under vegetation, burrows in winter	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE	SE, FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow, build loosely organized nests. Requires higher areas for flood escape.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Salt-marsh wandering shrew *Sorex vagrans halicoetes*	–	SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6-8 feet above sea level where abundant driftwood is scattered among pickleweed (Salicornia spp.).	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
San Pablo vole *Microtus californicus sanpabloensis*	–	SSC	Saltmarshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges and herbs. Forms a network of runways leading from the burrow	Not expected to occur. Habitat suitable for this species is not present in or near the project area.
Southern sea otter *Enhydra lutris nereis*	FT	FP	Protected deepwater coastal communities. Nearshore marine environments from about Ano Nuevo, San Mateo County to Point Sal, Santa Barbara County. Needs canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates.	Not expected to occur. Habitat suitable for this species is not present in or near the project area.

Name	Federal Status[1]	State Status[1]	Habitat	Potential to Occur in the Survey Area
Townsend's big-eared bat *Corynorhinus townsendii*	–	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Requires large cavities for roosting, which may include abandoned buildings and mines, caves, and basal cavities of trees. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**May occur.** Townsend's big-eared bat may be found roosting in large diameter trees or in abandoned structures.
Western red bat *Lasiurus frantzii*	–	SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Not expected to occur. Habitat suitable for this species (woodland or forest for roosting) is not present in or near the project area.

General references: Unless otherwise noted all habitat and distribution data provided by CNDDB.

Note: CNDDB = California Natural Diversity Database.

[1] Legal Status Definitions

Federal:
FE Endangered (legally protected)
FT Threatened (legally protected)

State:
SE Endangered (legally protected)
ST Threatened (legally protected)
FP Fully protected (legally protected)
SSC Species of special concern (no formal protection other than CEQA consideration)

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the plan area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available in the plan area; however, there are little to no other indicators that the species might be present.

Likely to occur: All of the species life history requirements can be met by habitat present on the site, and populations/occurrences are known to occur in the immediate vicinity.

Present. Species observed within the study area.

Source: CNDDB 2024; USFWS 2024.

Appendix D

Archaeological Survey Report

ARCHAEOLOGICAL CONSULTING

2681 Cleveland Avenue
Santa Rosa, CA 95403

ARCHAEOLOGICAL SURVEY REPORT

for

ASCENT CITY OF SAUSALITO BIRDGEWAY COMMONS CONDOMINIUMS PROJECT SAUSALITO, MARIN COUNTY, CA

APN 064-151-02 and 064-151-03

Prepared for:

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Project No. ALTA2024-272

Key Words: USGS 7.5' San Francisco North Quadrangle; 0.57-acre survey area; Township 1S, Range 6W, unsectioned portion of Rancho Saucelito, Mount Diablo Base and Meridian; Negative.

11/20/2024

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I. SUMMARY OF FINDINGS

The following Archaeological Survey Report (ASR) documents the adequacy of identification efforts and presents the results of investigations within the limits of the proposed project area (Project Area). The study was completed to identify any cultural resources that may be present on the property and to address the requirements of the California Environmental Quality Act (CEQA). Fieldwork was conducted on November 15, 2024 by Jamie Frattarelli and Owen Knight. The survey entailed a cultural resources inventory of the Project Area, approximately 0.57 acres. . No cultural resources were identified as a result of archaeological field survey. The project, as presently designed, is not anticipated to have an adverse effect of historic properties.

II. INTRODUCTION

Alta Archaeological Consulting (ALTA) was retained to conduct a cultural resources inventory as part of the permitting process for the construction of a two-building, multi-unit residential development. An archaeological field survey was completed by ALTA and the Federated Indians of the Graton Rancheria (FIGR) on November 15, 2024 for the purpose of identifying cultural resources within the Project Area. The entire parcel was surveyed totaling approximately 0.57 acres. No cultural or historical resources were identified within the Project Area. The following ASR documents the adequacy of identification efforts, presents the results of investigations within the Project Area boundaries, and makes recommendations for management of resources present on the property. This report addresses the responsibilities of the California Environmental Quality Act (CEQA), as codified in Public Resources Code sections 5097, and its implementing guidelines 21082 and 21083.2. For the purposes of this project, the City of Sausalito is the lead agency for CEQA.

III. PROJECT LOCATION AND DESCRIPTION

The project is located in a residential area in the northern portion of the city of Sausalito in Marin County, California (Figure 1). It is depicted on the USGS 7.5' San Francisco North Quadrangle, in an unsectioned portion of Rancho Saucelito of Township 1 South, Range 6 West, in the Mount Diablo Base and Meridian (Figure 2). The project is set on two parcels totaling 0.57 acres (064-151-02, 064-151-03). The physical address of the parcel is 1751-1757 Bridgeway Boulevard and 160 Filbert Avenue in Sausalito, California. The Project Area is located in a developed residential parcel 0.1 miles southwest of Richardson Bay (Figure 3).

The project proponent is in the process of completing an application for a Conditional Use Permit in order to construct a two-building, multi-unit residential development. The project will include a three-story building on the northern parcel, with residential units on the top two floors and a parking garage on the first floor. The second building is planned to be five stories located to the south near Filbert Street. The building will have residential units on the top three floors, and additional spaces including a garage and lobby. Site improvements will also include landscaping, hardscaping, and related infrastructure.

Figure 1. Project Vicinity

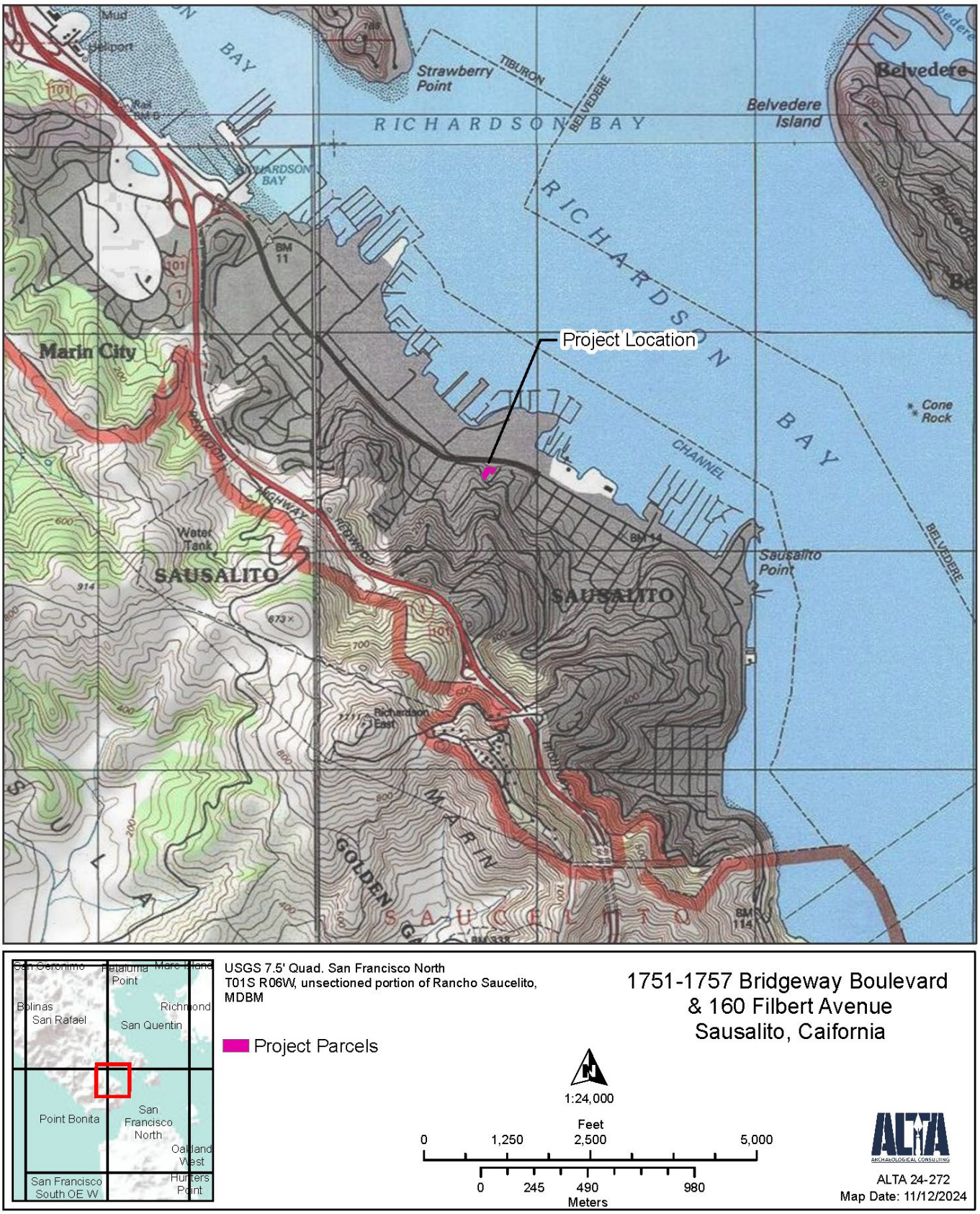

Figure 2. Project Location

Figure 3. Project Area

IV. REGULATORY CONTEXT

This section briefly discusses the nature and extent of State regulations that apply to the Project. As part of the compliance process, the Project must comply with: CEQA as amended, and its implementing regulations and guidelines, codified in Title 14 of the California Code of Regulations (CCR), which provide agencies guidance for compliance with environmental regulations.

CEQA applies to certain projects undertaken requiring approval by State and/or local agencies. Property owners, planners, developers, as well as State and local agencies are responsible for complying with CEQA's requirements regarding the identification and treatment of historic and prehistoric cultural resources. Under CEQA, cultural resources must be evaluated to determine their eligibility for listing in the California Register of Historic Resources (CRHR). If a cultural resource is determined *ineligible* for listing on the CRHR the resource is released from management responsibilities and a project can proceed without further cultural resource considerations.

As set forth in Section 5024.1(c) of the Public Resources Code for a cultural resource to be deemed "important" under CEQA and thus eligible for listing on the CRHR, it must meet at least one of the following criteria:

1. is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. is associated with the lives of persons important to our past; or
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4. has yielded or is likely to yield, information important to prehistory or history.

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section 15064.5(b) prescribes that project effects that would "cause a substantial adverse change in the significance of an historical resource" are significant effects on the environment. Substantial adverse changes include both physical changes to the historical resource, or to its immediate surroundings.

Section 21083.2 of the CEQA guidelines also defines "unique archaeological resources" as "any archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and show that there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

This definition is equally applicable to recognizing "a unique paleontological resource or site." CEQA Section 15064.5 (a)(3)(D), which indicates "generally, a resource shall be considered historically significant if it has yielded, or may be likely to yield, information important in prehistory or history," provides additional guidance.

V. BACKGROUND

As the significance of cultural resources is best assessed with regard to environmental and cultural contexts, descriptions of the natural and cultural setting of the project region are presented below.

Environment

The Project Area is located in the city of Sausalito, in southern Marin County, with elevations varying from approximately 20 to 70 feet above mean sea level. It is situated on the southwestern side of Richardson Bay on the eastern edge of the Marin Peninsula. The nearest water source is Richardson Bay, which is 800 feet east of the Project Area. The Project Area is an urban residential lot populated with native and nonnative annual and perennial grasses. Trees in the Project Area consist of California bay laurel (*Umbellularia californica*), Chinese elm (*Ulmus parvifolia*), common camelia (*Camellia japonica*), and other ornamental and fruit trees incorporated in the landscaping (Little 1980). This area is characterized by a Mediterranean climate that averages between 25-35 inches of rainfall annually (United States Department of Agriculture 2003). The winters are cool and wet, and the summers are warm and dry.

Archaeological Context

Archaeological and regulatory literature has often used the terms "prehistory" or "prehistoric" to describe the period before the arrival of Euro-American colonists. Traditionally, these terms have been employed to differentiate between cultures with and without written records, labeling those without writing as "prehistoric." However, this distinction is based on a Eurocentric perspective and carries a negative connotation, suggesting that Native American groups lack memory of their own history and that their cultures do not persist today—both of which are incorrect. In recognition of the agency and ongoing cultural identity of Native Americans, and acknowledging the significant impact of colonization on their societies, non-regulatory discussions of resources predating Euro-American colonization throughout this report uses the term "precontact."

Over thousands of years, the hunter–gatherer–fisher peoples of the San Francisco Bay Area created a rich and diverse archaeological record. The development of complex hunter-gatherer societies in the Bay Area first appears about 4,000 years ago (Chartkoff and Chartkoff 1984:227–237; Milliken et al. 2007; Moratto 2004:281–283). Cultural complexity, social stratification, population density, and resource intensification increase through time. Proto-Utian groups, speakers of Costanoan and Miwok languages, are thought to have entered the Bay Area through the Delta Region about 4,500 years ago displacing Hokan speakers within this vicinity (Moratto 2004:293).

Three major taxonomic systems have been developed for the San Francisco Bay Area. These include (1) the Central California Taxonomic System, (2) the Archaic-Emergent Culture History Scheme, and (3) a Hybrid System that combines aspects of several schemes. The Central California Taxonomic System (CCTS) attempted to create horizons based on temporally diagnostic artifacts and mortuary customs (Beardsley 1948, 1954; Gerow 1954, 1974; Lillard et al. 1939). Three horizons were defined- Early, Middle, and Late. After the invention of radiocarbon dating technology in the 1950s, archaeologists attempted to test the relative sequence of the CCTS with chronometric dates (Fredrickson 1973, 1974; Heizer 1958; Ragir 1972). These studies found that the horizon system in the CCTS did not allow for regional and cultural inconsistencies, and overstating the relationship between region and temporal change in artifacts (White et al. 2002).

The Archaic-Emergent Culture History Scheme (AECHS) attempted to refine the variation of relative chronologies into defined cultural units. Patterns are basic economic/cultural adaptations that are bound geographically, as were the three horizons of CCTS. Aspects are smaller-scale variants of patterns, which represent regional adaptations and styles and are bound more temporally. Phases are smaller scale variants of aspects, based on similarities and differences within related artifact types and trends (Bennyhoff and Fredrickson 1994). This taxonomic system has largely defined Bay Area archaeology, and can be broken into four distinct patterns: the Borax Lake Pattern, the Windmiller Pattern, the Berkeley Pattern, and the Augustine Pattern. These patterns define distinct temporal regional trends in diet, tool manufacture, trade, and ceremonial artifacts.

Later studies have advocated for a hybrid of CCTS and AECHS. This system utilizes the Early-Middle-Late structure proposed in CCTS, while including cultural units of patterns, aspects and phases. These specific cultural units have been demonstrated through current shell bead chronology studies within the Bay Area, referred to as Dating Scheme D (Groza 2002; Groza et al. 2011). Temporally distinct shell beads made of the purple olive snail (Olivella sp.) were widely traded beginning in the middle Holocene, extending as far as the central Great Basin. Because these are widely-distributed, relatively resilient organic artifacts, they have served as subjects for radiometric dating studies in order to solidify dates within relative chronologies throughout California and the Great Basin (Bennyhoff and Hughes 1987; Vellanoweth 2001). These radiometric studies have resulted in the development of relative and exact chronologies, known widely as dating schemes.

Dating Scheme D refines Bennyhoff and Hughes's (1987) Scheme B1, which itself refined Heizer's (1958) Scheme A. While Scheme A was based on radiocarbon dates from 17 samples, and Scheme B was based on 180 uncalibrated dates from varied artifacts, Scheme D is based on 140 AMS radiocarbon dates from beads made of Olivella shells and radiometric dates from five mass bead-lots. Groza's work advanced the chronology of many bead types by as much as 200 years forward (Milliken et al. 2007). These beads only represent units of time, not exact chronology. Accordingly, they have no implications for cultures specifically, but are used to identify relative chronology. These units of time are referred to as bead style horizons (Groza et al. 2011:18). In the present investigation, we intend to use this hybrid system that adopts conventional terminology consistent with the Scheme D dating sequence, with bead style horizons labeled within the Early, Middle, and Late Periods and based on the bead type nomenclature established by Milliken et al. (2007) and Groza et al. (2011).

During the Early Holocene/Lower Archaic (8000-3500 B.C), peoples practiced a mobile foraging lifestyle. Material culture associated with this time includes generally large wide–stemmed and leaf–shaped projectile points associated with atlatls, milling slabs, and handstones. These artifacts, paired with archaeobotanical evidence, suggests a mixed economy of game hunting, acorn processing, and diversified use of floral and faunal resources (Milliken et al. 2007:114). The Early Period/Middle Archaic (3500-500 B.C.) heralded an increase in sedentism, marked materially by the spread of the less–portable mortar and pestle. This period also saw a flourishing of shell bead types in burial lots, particularly rectangular cut beads (Groza et al. 2011:144–145; Milliken et al. 2007:114–115).

The Lower Middle Period/Initial Upper Archaic (500 B.C.-A.D. 430) is characterized by an abrupt disappearance of rectangular shell beads from the Bay Area as well as central and southern California. These were replaced by new round types such as split–beveled and tiny saucer Olivella beads, which Groza et al. (2011) classify as Bead Horizon M1. As such, a bead trading economy seems to have taken off at this time. Mortar and pestle milling technology continued to spread, leaving milling slab technology mostly confined to coastal sites (Milliken et al. 2007:115–116).

The saucer bead trade economy seems to have abruptly collapsed during the Upper Middle Period/Late Upper Archaic (A.D. 430-1050). Many bead–manufacturing sites dating to Bead Horizon M1 were abandoned at this time. Bead Horizon M2, characterized by wide chipped– and ground–edge Olivella saddle beads, generally replaced the saucer beads of Bead Horizon 1 (Groza et al. 2011:146–147). Additionally, burial practices identified as the Meganos Aspect began to appear in the East Bay. This aspect, defined by extended burials, replaced flexed burials of previous times. Saucer beads decrease dramatically in these burial contexts over time (Milliken et al. 2007:116).

The cultural practices of California Native peoples documented by Spanish colonists in the 1500s originate in the traditions of the Initial Late Period/Lower Emergent (A.D. 1050-1550). This time saw an increase in prestige items in burial contexts, suggesting an increase in social stratification. Accordingly, the Middle/Late Transition Bead Horizon (Groza et al. 2011:148–149) demonstrates the widest diversity of Olivella bead types in California prehistory, including many shapes of split, shelved, saucer, and sequin beads in punched and perforated varieties. The advent of the bow and arrow occurred during this time, represented in central California by the Stockton

serrated series (Milliken et al. 2007:117). This reduction of projectile point size corresponds with an increase in manufacturing of finished points from Napa Glass Mountain obsidian at locations distant from the material source. Other items, including the flanged pipe, the Olivella callus cup bead, and the abalone "banjo" or "big head" pendant, appear at this time, indicating an elaboration of ritual and ceremonial practice (Milliken et al. 2007:116–117). These trends all point towards a further increase in sedentism.

The arrival of the Spanish during the Terminal Late Period (post-A.D. 1550) coincided with the abandonment of the Olivella sequin and cup beads, replaced by lipped and spire–lopped types. The Bay Area saw an explosion of technological and material culture innovation at this time, including the "toggle harpoon, hopper mortar, plain corner–notched arrow–sized projectile point, clamshell disk beads, [and] magnesite tube beads" (Milliken et al. 2007:117).

Ethnography

The Coast Miwok, who lived in this region prior to European-American intrusion, were distributed across Sonoma and Marin Counties. The following ethnographic summary is not intended as a thorough description of Coast Miwok culture but instead is meant to provide a background to the present cultural resource investigation with specific references to the Project Area. In this section, the past tense is sometimes used when referring to native peoples because this is a historical study. This convention is not intended to suggest that Coast Miwok people only existed in the past. To the contrary, the Coast Miwok groups all have strong cultural and social identities today.

The Coast Miwok were one of the California Penutian Language speaking groups and closely related to the Lake Miwok (Kelly 1978:414). The Coast Miwok occupied the northwest coast of California from the mouth of the Golden Gate in the south, to approximately 5 miles north of Bodega Bay in the north, to approximately 4 miles east of Sonoma Creek (Barrett 1908; Kelly 1978). Barrett (1908) divides Coast Miwok speakers into two distinct dialects: Western/Bodega and Southern/Marin.

There were historically 44 recorded villages within the Coast Miwok territory, many of which provide present place names (Kelly 1978:415). Ethnographic accounts indicate that the Coast Miwok lived in large villages, each of which had a headman, but cannot be said to have a universal tribal organization. According to informant Tom Smith, a headman (*hóypuh*), a "woman chief" (*hóypuh kulé(·)yih*) and a third female leader (*máien*) split responsibilities of tending to people and organizing religious ceremonies (Kelly 1978:419).

The Coast Miwok were among the first California Native peoples to encounter Euro-Americans, meeting Sir Francis Drake in 1579. During the late eighteenth and early nineteenth century, many Coast Miwok people were subjected to missionization at San Francisco, San Rafael, and Sonoma, as well as labor at Fort Ross under the Russians. In 1850, a year after the end of the American conquest of California, the Coast Miwok population was estimated at 250 (Kelly 1978:414).

The Coast Miwok followed a cyclical pattern of subsistence, exploiting resources that were available on a seasonal basis. They practiced a diversified subsistence economy based on fishing, hunting and gathering with a particular dependence on acorns. Important marine resources included fish, eels, clams, mussels, and seaweed, while terrestrial resources included acorns, bear, deer, elk, and small game (Kelly 1978:416). The Coast Miwok had a rich culture of religion, ritual and dance, with music and games being a large part of their cultural expression.

History

Early Exploration and Settlement

The earliest exploration of the Marin coast was possibly during Sir Francis Drake's 1579 voyage up and down the western coast of North America. He named northern California New Albion after his homeland, with the intent

of securing the area for the British crown (Dodge 1892). The Spanish made a foray into the area in 1602 with three ships under the command of Don Sebastian Vizcaino. However, the definitive discovery of the San Francisco Bay did not occur until 1769, when the Portola-Crespi party arrived by land. The party became the first non-Native peoples to see the San Francisco Bay. In 1775, the Spanish ship *San Carlo,* captained by Juan Manuel de Ayala anchored off present-day Sausalito and named it "Saucito," which means "little willow grove" in Spanish, due to the abundance of willow trees along the shoreline (Sausalito Historical Society 2015).

The Mexican Period

Following the Mexican War of Independence, the land came under Mexican control in 1821. In the early 19th century, the Mexican government granted vast tracts of land to prominent individuals, establishing a system of ranchos. One such notable land grant was the Saucelito Rancho, which encompassed the area that is now Sausalito. In 1838, William Richardson, an English-born sailor and merchant, was awarded the Saucelito Rancho as a land grant (Sausalito Historical Society 2015). Richardson built an adobe hacienda near present-day downtown Sausalito.

The American Period

After California's transition from Mexican to American control following the Mexican-American War in 1848, the Saucelito Rancho was confirmed by the US District Court in 1853 (Munro-Fraser 1880:192). However, by 1868, Richardson had gone bankrupt, and most of the land fell into the hands of his attorney, Samuel Throckmorton. The Sausalito Land and Ferry Company, owned by Throckmorton, laid out the town and subdivided lots for future development (Sausalito Historical Society 2015). Prior to the construction of the Golden Gate Bridge in 1937, ferries running across the bay were the main method of travel and transport between the North Bay and San Francisco. The Sausalito Ferry was a major shipping hub, which connected with the railroad network stretching throughout northern California.

As the railroad industry declined in the late 19th century, Sausalito's economy shifted toward shipbuilding and manufacturing. The town witnessed the establishment of several shipyards, including the celebrated Marinship Corporation, during World War II. These shipyards contributed to the production of Liberty ships and other vessels for the war effort, and brought a massive influx of workers to the community (Sausalito Historical Society 2015). In the post-war era, Sausalito became known primarily for its creative community, natural beauty, and proximity to San Francisco.

VI. SOURCES CONSULTED

Records Search

On November 7, 2024, ALTA archaeologist Jamie Frattarelli conducted a records search (File Number 24-0638) at the Northwest Information Center (NWIC) located on the campus of Sonoma State University. The NWIC, an affiliate of the State of California Office of Historic Preservation is the official state repository of archaeological and historical records and reports for an 18-county area that includes Marin County. The records search included a review of all study reports and resources on file within a quarter-mile radius of the Project Area. Sources consulted include archaeological site and survey base maps, survey reports, site records, and historic General Land Office (GLO) maps.

Included in the review were:

- California Inventory of Historical Resources (CA Dept. of Parks and Rec. 1976)
- California Historical Landmarks for Marin County (CA-OHP 1990)
- California Points of Historical Interest (CA-OHP 1992)
- Built Environment Resources Directory Listing (BERD) (CA-OHP January 2020)

- Historic Properties Directory (CA-OHP April 2012), including the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest

Review of historic registers and inventories indicate that no California Historical Landmarks or Points of Interest are present in the Project Area. One National Register listed is located within the half-mile visual area of the Project Area. The Marinship Machine Shop is located approximately 0.15 miles to the northwest.

Review of archaeological site and survey maps revealed that five cultural resource studies have been previously performed within a quarter-mile radius of the Project Area (Table 1). Approximately 10% of the quarter-mile records search radius has been previously surveyed. No studies have been conducted within the Project Area.

Table 1. Summary of Previous Cultural Resources Studies within Search Radius

Report No.	Authors	Year	Description
S-002150	Stephen A. Brandt	1980	Cultural Resources Investigation of Operating Projects, Corps of Engineers Base Yard Facility, Sausalito.
S-011565	Laurence H. Shoup	1990	Historical Overview and National Register of Historical Places Significance Evaluation of the Napa Street Pier, Sausalito, California
S-011565	Thompson F. Keesling and Kathryn Gualtieri	1990	COE891211A: Re: Napa Street Pier, Sausalito
S-013217	Thomas M. Origer	1990	An Archaeological Survey for the AT&T Fiber Optics Cable, San Francisco to Point Arena, California
S-013217	Thomas M. Origer	1990	Archaeological findings regarding a selection of a route through Novato for the AT&T Fiber Optics Cable (letter report)
S-013217	Thomas M. Origer	1991	An archaeological study of revised portions of the AT&T route near Santa Rosa and Sausalito (letter report)
S-013217	Thomas M. Origer	1991	Archaeological study of AT&T revised fiber cable routes (letter report)
S-013217	Thomas M. Origer	1992	Archaeological survey of alternative fiber optics cable routes, Point Arena (letter report)
S-024767	William Roop	2001	A Cultural Resources Evaluation of the Sausalito Marine Land Exchange and Development Project, Bridgeway Boulevard, Sausalito, Marin County, California
S-036164	Cassandra Chattan and Sally Evans	2009	A Cultural Resources Evaluation of 300 Locust Street, Sausalito, Marin County, California

One historic-era (P-21-000501O) and one precontact (P-21-002670) cultural resource are documented within a quarter-mile radius of the Project Area. These are summarized in Table 2 below. There are no cultural resources documented within the Project Area.

Table 2. Summary of Documented Cultural Resources within Search Radius

Primary No.	Trinomial	Age	Description
P-21-000501	CA-MRN-000574H	Historic	Napa Street Pier
P-21-002670		Prehistoric	Disturbed midden soil

P-21-000501 is the historic-era remains of the Napa Street Pier. This site is located 0.15 miles northeast of the Project Area.

P-21-002670 is disturbed midden soils relocated from CA-MRN-03 (Evans 2009). This site is located 0.45 miles east of the Project Area.

Historic Map Review

Review of historic maps of the area was completed to better understand the timing of development within the Project Area and recognize historic features. The following sources were consulted.

Austin, Hiram, and F. Whitney. 1873. Map of Marin County, California, 1:63,360. A. L. Bancroft and Company Lithographers, San Francisco.

Dodge, George M. 1892. Official Map of Marin County, California, 1:48,000. Schmidt Label & Lith Co., San Francisco.

Lewis, Wm. J. 1858. Plat of the Rancho Saucelito, finally confirmed to Wm. A. Richardson, 1:19,685. United States Surveyor General, San Francisco, CA.

United States District Court. 184AD. Diseño del Rancho Saucelito: Marin Co., Calif, 1:11,400. Berkeley, CA. Bancroft Library.

United States Geological Survey. 1895. San Francisco, CA. HTMC, 1:62,500. United States Geological Survey, Washington, D.C.

United States Geological Survey. 1915. San Francisco, CA. HTMC, 1:62,500. United States Geological Survey, Washington, D.C.

United States Geological Survey. 1950. San Francisco North, CA. HTMC, 1:250,000. United States Geological Survey, Washington, D.C.

United States Geological Survey. 1956. San Francisco North, CA. HTMC, 1:24,000. United States Geological Survey, Washington, D.C.

United States Geological Survey. 1993. San Francisco North, CA. HTMC, 1:24,000. United States Geological Survey, Washington, D.C.

The Project Area lies within the Rancho Saucelito land grant. The earliest plat of the Rancho solely depicts coastal landscape elements in the region of the Project Area (United States District Court 184?; Lewis 1858). The Project Area first appears clearly on the 1873 Map of Marin County (Austin and Whitney 1873). The Project Area is located within the Lands of the Saucelito Land and Ferry Company. The Northern Pacific Coast Railroad is depicted passing to the north of the Project Area terminating at New Saucelito. In addition, a road is shown constructed along the coast and around the town. A wharf and hotel are called out at the end of the railway line. By 1892, the location continues to be held by the Saucelito Land and Ferry Company which has been subdivided for future development (Dodge 1892). The spelling of the name of the town appears in its modern variation of Sausalito. The ferry route between Sausalito and San Francisco is shown prominently on the map (Dodge 1892). The 1895 USGS topographic map of the area shows the development along the coast in Sausalito, as well as a scattering of structures depicted along the hillsides, including around the Project Area (United States Geological Survey 1895). By 1915, more development is shown throughout Sausalito, as well as the installation at Fort Baker (United States Geological Survey 1915). Even more structures are shown within Sausalito, reflecting the increased population and development. By 1950, the Golden Gate Bridge and Highway 101 are shown crossing over to San Francisco (United States Geological Survey 1950). Sausalito has continued to spread into the hills to the west and south, and the area around the Project Area is shown as densely developed. In proceeding maps, the ferry line from Sausalito Point is no longer shown, as development appears more focused around the roads in the area. (United States Geological Survey 1956, 1993).

Ethnographic Literature Review

Available ethnographic literature was reviewed to identify cultural resources in the vicinity of the Project Area. The following sources were consulted.

Kelly, Isabel. 1978. Coast Miwok. In *California*, edited by Robert F. Heizer, pp. 414–425. Handbook of North American Indians 8. Smithsonian Institution, Washington, D.C.

Merriam, C. Hart. 1907. Distribution and Classification of the Mewan Stock of California. *American Anthropologist* 9(2):338–357.

Slaymaker, Charles M. 1982. A Model for the Study of Coast Miwok Ethnogeography. Unpublished PhD dissertation, University of California, Davis, CA.

Merriam identifies the linguistic subgroup of Coast Miwok speakers in the southern Marin region as Hoo'-koo-e'-ko (Merriam 1907:355–356). However, Slaymaker (1982:342) identifies the group as the Huimen. This group lived along the bay coast of southern Marin, down to the Golden Gate, including Sausalito and the Project Area. The nearest ethnographically identified habitation site to the Project Area is liwanelowa, located south of the city of Sausalito, southwest of Sausalito Point. This site is likely within a mile of the Project Area (Kelly 1978:415).

Native American Outreach

Assembly Bill 52, which went into effect in July 2015, is an amendment to CEQA Section 5097.94 of the Public Resources Code. AB52 established a proactive communication process with all California Native American tribes identified by the Native American Heritage Commission (NAHC) with cultural ties to an area. This process is implemented on projects that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration. Under AB52, the Lead Agency is required to consult with tribes at tribal request. The bill further created a new class of resources under CEQA known as Tribal Cultural Resources (TCRs). Consultation under AB 52 is undertaken by the Lead Agency, and is a government-to-government process. Native American outreach undertaken by ALTA for this project does not constitute formal consultation.

Ascent Environmental employee, Alta Cunningham, contacted the NAHC to request a review of the Sacred Lands file for information on Native American cultural resources in the Project Area and to request a list of Native American contacts in this area. In the NAHC response dated July 12, 2024, Cody Campagne (Cultural Resources Analyst) indicated that a search of the Sacred Lands File returned a positive result. The NAHC requested that the Federated Tribes of Graton Rancheria (FIGR) be contacted regarding the project. The NAHC also forwarded a list of suggested tribal entities to contact for their input or concerns regarding the project.

On November 12, 2024, a communication was sent to Buffy McQuillan, the Tribal Historic Preservation Officer (THPO) of FIGR. Attachment B provides copies of the Native American correspondences. Owen Knight, Tribal Monitor with the FIGR, participated in the archaeological field survey of the Project Area.

VII. FIELD METHODS

ALTA staff archaeologist Jamie Frattarelli and FIGR Tribal Monitor Owen Knight, conducted a field survey of the Project Area on November 15, 2024. Project design drawing, project maps and aerial imagery were used to correctly identify the Project Area. Ground surface visibility was poor, about 10%, throughout the survey area due to the built environment, landscaping, dense grass, and leaf duff. The full Project Area was surveyed, totaling

0.56 acres of land (Figure 4). The Project Area was surveyed using intensive survey coverage with transects no greater than 10-meter intervals. A shovel was used to expose the ground and examine soils at regular 10-meter intervals during pedestrian survey. Digital photos were taken of the Project Area and surroundings (Attachment C).

VIII. STUDY FINDINGS AND MANAGEMENT RECOMMENDATIONS

Study Findings

As previously discussed in section IV, this cultural resources inventory was conducted to address the responsibilities of CEQA, as codified in Public Resource Code sections 5097, and its implementing guidelines 21082 and 21083.2. No cultural resources were identified within the Project Area as a result of the records search, literature review, Native American outreach, or archaeological field survey. Shell fragments were found on the ground surface within two garden areas. The source of the shell appeared to be abalone and clam embedded in concrete retaining walls, and related to modern occupation of the Project Area. These items were likely brought into the area during modern times and do not represent archaeological materials.

As designed, the project will not cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either 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. The project will not cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5.

Management Recommendations

We make the following recommendations to ensure that cultural resources are not adversely affected by the proposed project. As presently designed, the project is not expected to have an adverse effect on cultural resources.

Unanticipated Discovery of Cultural Resources

If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Resources associated with Native peoples include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Encountering Native American Remains

As defined in California Health and Safety Code Section 7050.5, if human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, per PRC 5097.98, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains is provided.

Figure 4. Survey Coverage

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ARCHAEOLOGICAL CONSULTING

2681 Cleveland Avenue
Santa Rosa, CA 95403

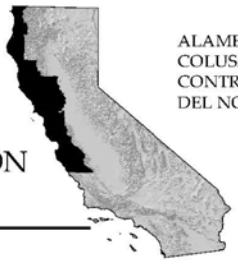
Attachment A
Records Search Results

ASCENT CITY OF SAUSALITO BIRDGEWAY COMMONS CONDOMINIUMS PROJECT SAUSALITO, MARIN COUNTY, CALIFORNIA

Confidential Information

This report contains confidential information. The distribution of material contained in this report is restricted to a need to know basis. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the location of cultural resources should be kept confidential. The provision protecting the confidentially of archaeological resources is in California Government Code 6245 and 6245.10, and the National Historic Preservation Act of 1996, Section 304.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM



ALAMEDA, COLUSA, CONTRA COSTA, DEL NORTE, HUMBOLDT, LAKE, MARIN, MENDOCINO, MONTEREY, NAPA, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, SONOMA, YOLO

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Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
https://nwic.sonoma.edu

NWIC Billing Worksheet

IC File Number: 24-0683

Client Name: Jamie Fratterelli(Alta) Phone: (707) 775-1761

Affiliation: Alta Archaeological Consulting Email: jamie@altaac.com

Proj Name/Number:

Date Request Rec'd: 11/7/2024 Date of Response: 11/8/2024

Check In: 1:09:00 PM Check Out: 2:56:00 PM Check In: Check Out:

In-person Time:	Hour(s):	1.78	$	200.00
Staff Time:	Hour(s):	1	$	150.00
Shape Files:	Number:	50	$	600.00
Custom Map Features:	Number:		$	0.00
Digital Database Record:	Number of Row(s):	285	$	71.25
Quads:	Number:		$	0.00
Address-mapped Flat Fee:			$	0.00
Hard Copy (Xerox/Computer) Pages:	Page(s):		$	0.00
Labor Charge:	Hour(s):		$	0.00
PDF Pages:	Page(s):	2839	$	425.85
PDF Flat Fee:			$	0.00
Other: CHRIS Data Request			$	0.00
		Subtotal	$	**1447.10**

Rapid response surcharge of 50% of total cost: $ 0.00

Total: $ **1447.10**

Information Center Staff: Dana Marty

Sonoma State University Customer ID: 0001001960

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ARCHAEOLOGICAL CONSULTING

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Attachment B
Native American Outreach

ASCENT CITY OF SAUSALITO BIRDGEWAY COMMONS CONDOMINIUMS PROJECT SAUSALITO, MARIN COUNTY, CALIFORNIA

Confidential Information

This report contains confidential information. The distribution of material contained in this report is restricted to a need to know basis. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the location of cultural resources should be kept confidential. The provision protecting the confidentially of archaeological resources is in California Government Code 6245 and 6245.10, and the National Historic Preservation Act of 1996, Section 304.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

July 12, 2024

Alta Cunningham
Ascent Environmental

Via Email to: alta.cunningham@ascentenvironmental.com

Re: 20240142.01 - Sausalito, City of - Bridgeway Commons Project, Marin County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Federated Indians of Graton Rancheria on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

Attachment

Alta Archaeological Consulting, LLC
2681 Cleveland Ave.
Santa Rosa, CA 95403
office (707) 544-4206
fax (707) 546-2135
www.altaac.com

November 12, 2024

Buffy McQuillen, Tribal Historic Preservation Officer
The Federated Indians of Graton Rancheria
6400 Redwood Drive, Suite 300
Rohnert Park, CA 94928

Re: 1751-1757 Bridgeway Boulevard and 160 Filbert Avenue in Sausalito (ALTA24-272)

Dear Ms. McQuillen,

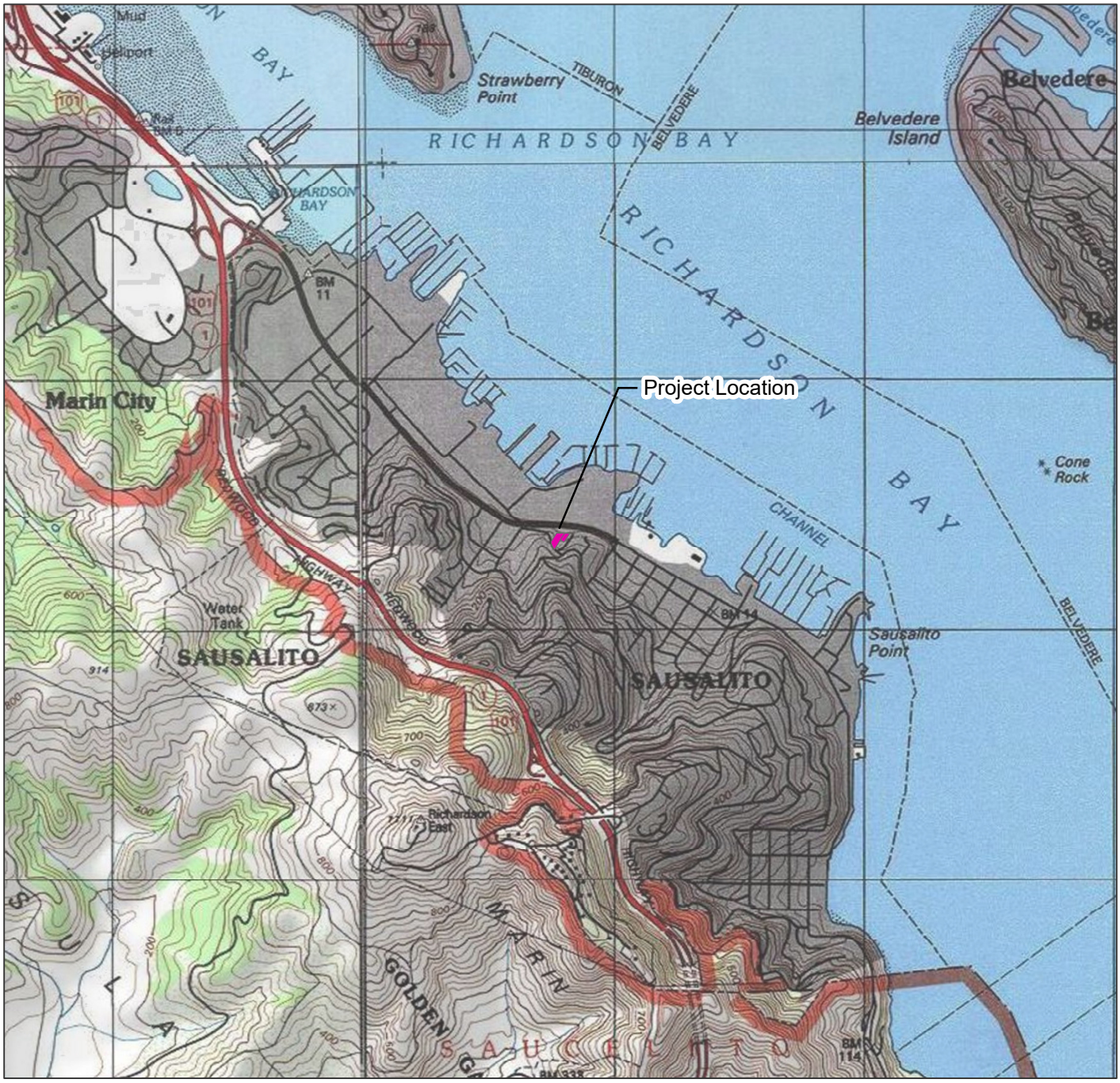
Alta Archaeological Consulting (ALTA) has been retained to complete an archaeological field survey at 1751-1757 Bridgeway Boulevard and 160 Filbert Avenue in Sausalito, California. The project proponent is applying for a permit in order to construct the Bridgeway Commons Development. The proposed project consists of a two-building, multi-unit residential development.

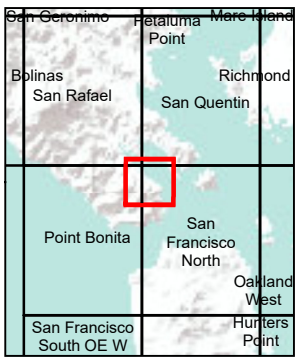
The project is located on two parcels (APN 064-151-02 and 064-151-03) totaling approximately 0.57 acres. It is situated on the USGS 7.5' San Francisco North Quadrangle in an unsectioned portion of Township 01 South, Range 6 West, in the Saucelito Land Grant, in the Mount Diablo Base and Meridian. The physical address of the project is 1751-1757 Bridgeway Boulevard and 160 Filbert Avenue in Sausalito, California.

The Native American Heritage Commission provided your name and contact information regarding this project. The search of the Sacred Lands File was positive. We are contacting you to inform you of the proposed project and to solicit your input or concerns about the protection of cultural resources within or near the proposed project. This letter does not constitute formal consultation with the lead agency. If you are interested in providing input on this project, please contact me at the address listed below.

Sincerely,

Jamie Frattarelli, M.A., RPA
Senior Archaeologist
2681 Cleveland Avenue
Santa Rosa, CA 95403
jamie@altaac.com
(707) 544-4206 office
(707) 546-2135 fax





USGS 7.5' Quad. San Francisco North
T01S R06W, unsectioned portion of Rancho Saucelito, MDBM

Project Parcels

1751-1757 Bridgeway Boulevard & 160 Filbert Avenue Sausalito, Caifornia

1:24,000

Feet
0 1,250 2,500 5,000

0 245 490 980
Meters

ALTA 24-272
Map Date: 11/12/2024

Legend

- Project Area
- Parcel
- Road

1751-1757 Bridgeway Boulevard
& 160 Filbert Avenue
Sausalito, California

1:1,000

Feet
0 50 100 200

Meters
0 10 20 40

ALTA 24-172
Map Date: 10/30/2024

ARCHAEOLOGICAL CONSULTING

2681 Cleveland Avenue
Santa Rosa, CA 95403

Attachment C
Photo Sheet

ASCENT CITY OF SAUSALITO BIRDGEWAY COMMONS CONDOMINIUMS PROJECT SAUSALITO, MARIN COUNTY, CALIFORNIA

Confidential Information

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15Nov24 08-58.0, view northeast, 11/15/2024, Project Area overview from Filbert Avenue to 160 Filbert Ave., low ground visibility due to structure, concrete, and landscaping.

15Nov24 09-29.0, view southeast, 11/15/2024, Overview of terraced hill in southeast corner of 1745 Bridgeway, shell embedded in terraced retaining wall, likely source of abalone shell fragment found in garden.

15Nov24 09-33.0, view southwest, 11/15/2024, Overview of building and landscaping at 1757 Bridgeway, structure, landscaping, leaf duff, and grass obscure ground visibility.

15Nov24 09-35.0, view southwest, 11/15/2024, Overview of side yard of 1751 Bridgeway, grass and leaf duff impeding ground visibility.

15Nov24 09-38.0, view south, 11/15/2024, Backyard of 160 Filbert Ave., grass, leaf duff, structure obscures ground visibility.

15Nov24 09-47.0, view west, 11/15/2024, Sparse scatter of clam shell fragments in garden surface of 1757 Bridgeway, clam shell embedded in concrete retaining wall likely source.

15Nov24 09-52.0, view northeast, 11/15/2024, Overview of hillslope south of 1757 Bridgeway.

15Nov24 10-03.0, view northeast, 11/15/2024, Garage and landscaping at 1745 Bridgeway from northeast boundary of Project Area.

PHOTO LOG

Project Name: ALTA2024_272 Ascent City of Sausalito Bridgeway Commons Condominiums Project
Photographer: Jamie Frattarelli
Camera Type: iPhone 11
Lens Size: N/A
Images on File: Alta Archaeological Consulting

Date	Time	Frame	Subject/Description	View
11/15/2024	8:58	15Nov24 08-58.0	Project Area overview from Filbert Avenue to 160 Filbert Ave., low ground visibility due to structure, concrete, and landscaping	NE
11/15/2024	9:09	15Nov24 09-09.0	Overview of project area from northern edge of property at Bridgeway. Low ground visibility due to grass, landscaping, existing structures	SE
11/15/2024	9:24	15Nov24 09-24.0	Abalone shell fragment in landscaped garden in easter Project Area	CU
11/15/2024	9:25	15Nov24 09-25.0	Abalone shell fragment in landscaped garden in easter Project Area	CU
11/15/2024	9:26	15Nov24 09-26.0	Abalone shell embedded in terraced retaining wall, likely source of shell fragment	S
11/15/2024	9:28	15Nov24 09-28.0	Overview from southeast edge of 1745 Bridgeway, hill slope is highly terraced, ground visibility impacted by landscaping, hardscaping, and structures	NE
11/15/2024	9:29	15Nov24 09-29.0	Overview of terraced hill in southeast corner of 1745 Bridgeway	SE
11/15/2024	9:31	15Nov24 09-31.0	Overview of terraced garden in northern portion of 1745 Bridgeway	SW
11/15/2024	9:32	15Nov24 09-32.0	Overview of building and landscaping at 1751 Bridgeway, structure, landscaping, leaf duff, and grass obscure ground visibility	S
11/15/2024	9:33	15Nov24 09-33.0	Overview of building and landscaping at 1757 Bridgeway, structure, landscaping, leaf duff, and grass obscure ground visibility	SW
11/15/2024	9:35	15Nov24 09-35.0	Side yard of 1751 Bridgeway, grass and leaf duff, landscaped	SW
11/15/2024	9:37	15Nov24 09-37.0	Backyard of 1751 Bridgeway, heavy leaf duff	E
11/15/2024	9:38	15Nov24 09-38.0	Backyard of 160 Filbert Ave., grass, leaf duff, structure obscures ground visibility	S
11/15/2024	9:40	15Nov24 09-40.0	Backyard of 1757 Bridgeway, ground visibility hindered by leaf duff and grass	N
11/15/2024	9:45	15Nov24 09-45.0	Clam shell fragment on surface of garden in backyard of 1757 Bridgeway	CU
11/15/2024	9:45	15Nov24 09-45.1	Clam shell fragment on surface of garden in backyard of 1757 Bridgeway	CU
11/15/2024	9:47	15Nov24 09-47.0	Sparse scatter of clam shell fragments in garden surface of 1757 Bridgeway, clam shell embedded in concrete retaining wall likely source	W
11/15/2024	9:52	15Nov24 09-52.0	Hillslope south of 1757 Bridgeway	NE
11/15/2024	9:52	15Nov24 09-52.0	Hillslope south of 1757 Bridgeway	NE
11/15/2024	10:03	15Nov24 08-58.0	Garage and landscaping at 1745 Bridgeway from northeast boundary of Project Area	SW
11/15/2024	10:03	15Nov24 10-03.1	Terraced slope and building at 1745 Bridgeway	S

Date	Time	Frame	Subject/Description	View
11/15/2024	10:04	15Nov2410-04.0	Terraced slope and building at 1745 Bridgeway	S

Appendix E

Geotechnical Engineering Study

GEOTECHNICAL ENGINEERING STUDY
BRIDEGEWAY COMMONS
1751-1757 BRIDGEWAY BOULEVARD & 160 FILBERT AVENUE
SAUSALITO, CALIFORNIA

November 6, 2018

Prepared for

Ms. Feng Xue
SY Jardines Lookout LLC
1755 Bridgeway
Sausalito, CA 94965

Prepared by

Earth Systems Pacific
48511 Warm Springs Blvd., Suite 210
Fremont, CA 94539

Earth Systems
48511 Warm Springs Boulevard, Suite 210 | Fremont, CA 94539 | Ph: 510.353.3833 | www.earthsystems.com

November 6, 2018 File No.: 302110-001

Ms. Feng Xue
SY Jardines Lookout LLC
1755 Bridgeway
Sausalito, CA 94965

PROJECT: BRIDGEWAY COMMONS
1751-1757 BRIDGEWAY & 160 FILBERT AVENUE
SAUSALITO, CALIFORNIA

SUBJECT: Geotechnical Engineering Study

REF.: Proposal for Geotechnical Engineering Study, Bridgeway Commons, 1751-1757 Bridgeway Boulevard & 160 Filbert Avenue, Sausalito, California, by Earth Systems Pacific, April 16, 2018.

Dear Ms. Xue:

In accordance with your authorization of the above referenced proposal, this geotechnical engineering study has been prepared by Earth Systems Pacific (Earth Systems) for use in the development of plans and specifications for the proposed Bridgeway Commons development in Sausalito, California. The conclusions and recommendations presented herein are based on our understanding of the currently proposed development, a review of the subsurface conditions revealed by three soil borings advanced as a part of this investigation, and our engineering analysis.

We appreciate the opportunity to assist you on this project. Should you have any questions regarding the contents of this report, please contact the undersigned.

Sincerely,

Earth Systems Pacific

Kira Ortiz PE 88089
Project Engineer

Ajay Singh, GE 3057
Principal Engineer

Doc. No.: 1811-020.SER/kt

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1.0 INTRODUCTION

This report presents the results of the geotechnical engineering study performed by Earth Systems Pacific (Earth System), for the proposed Bridgeway Commons development to be constructed off Bridgeway Boulevard and Filbert Avenue in Sausalito, California. The attached Site Location Map Figure 1, shows the general location of the site and the attached Site Plan, Figure 2 and Site Development Plan, Figure 3, show the location of the borings advanced at the site as part of this investigation.

Site Setting

The subject property is flag-shaped, consisting of two parcels located at 1751-1757 Bridgeway Boulevard & 160 Filbert Avenue in Sausalito, California (APN 064-151-02 & 064-121-03). The middle portion of the site has a latitude of 37.8614°N and a longitude of 122.4921°W (See Figure 1).

Site Description

The site is located on the south side of Bridgeway, approximately 475 feet south of the intersection of Bridgeway and Filbert Avenue in Sausalito, California. At the time of our investigation, the project site was occupied by four separate residences across the site and an associated detached concrete garage building located along the northern edge of the site, adjacent to Bridgeway. The site slopes to the north, towards Bridgeway and was covered with heavy vegetation at the time of our subsurface exploration as shown on the attached Site Plan (Figure 2). A review of the site topographic map prepared by ILS Associates, dated 12-5-2013 indicates that site elevations range from approximately 72 feet in the southern corner near Filbert Street to 30 feet in the northern portion near gravel parking adjacent to Bridgeway Boulevard. The average ground slope across the site is approximately 5H:1V.

Project Description

Based on a review of the site plan prepared by BDE Architecture, it is our understanding that the proposed construction consists of a two building, multi-unit residential development. The northern building, along Bridgeway Boulevard will be three stories with residential units occupying the upper two floors and a parking garage with partial basement on the first.

The southern building, near Filbert Street, will be five stories with residential units occupying the upper three floors, a mechanical and elevator service room, utilities room, and storage space will occupy the second floor, and additional garage spaces, trash termination room and a lobby will occupy the first floor. Related site improvements will include associated utilities, hardscape/landscape, pavement, and other site elements.

The northern building will have a finished grade of 33 feet in the parking garage area, the second floor will have an elevation of 45 feet and the upper level building will have a finished floor elevation of 55.33 feet. The two buildings will be connected at the third-floor level. The fourth, fifth, and sixth floor elevations of the southern building will be 63.67 feet, 74 feet, and 84.33 feet.

This will require cuts on the order of 15 feet in the southeastern corner and perhaps minor fills in the western portion of the parking garage. The parking area of the southern building will have a finished floor elevation of 45 feet which will include approximately 15 feet high retaining walls on the southside of the building. The project will include additional retaining walls at all levels including multiple retaining walls around the stairs on the eastern and western sides of the buildings.

Scope of Services

The scope of work for the geotechnical engineering study included general site reconnaissance, subsurface exploration, engineering evaluation of the data collected by others and Earth Systems, and preparation of this report. The analysis and engineering recommendations presented in the following sections of this report are based on our understanding of the proposed development at the subject site and our experience with projects of a similar nature.

The report and recommendations are intended to comply with the considerations of Section 1803 of the California Building Code (CBC), 2016 Edition, and common geotechnical engineering practice in this area at this time under similar conditions.

Preliminary geotechnical recommendations for site preparation and grading, foundations, slabs-on-grade, exterior flatwork, utility trench backfill, site drainage management, and geotechnical observation and testing are presented to guide the development of project plans and specifications. It is our intent that this update report be used by the client to form the geotechnical basis of the design of the project as described herein, and in the preparation of plans and specifications.

Detailed evaluation of the site geology and potential geologic hazards, and analyses of the soil for infiltration rates, mold or other microbial content, asbestos, radioisotopes, hydrocarbons, or other chemical properties are beyond the scope of this report. This report also does not address issues in the domain of contractors such as, but not limited to, site safety, loss of volume due to stripping of the site, shrinkage of soils during compaction, excavatability, shoring, temporary

slope angles, and construction means and methods. Ancillary features such as temporary access roads, fences, light poles, and non-structural fills are not within our scope and are also not addressed.

To verify that pertinent issues have been addressed and to aid in conformance with the intent of this report, it is requested that final grading and foundation plans be submitted to this office for review. In the event that there are any changes in the nature, design, or locations of improvements, or if any assumptions used in the preparation of this update report prove to be incorrect, the conclusions and recommendations contained herein should not be considered valid unless the changes are reviewed and the conclusions of this update report are verified or modified in writing by the geotechnical engineer. The criteria presented in this update report are considered preliminary until such time as they are verified or modified in writing by the geotechnical engineer in the field during construction.

2.0 GEOLOGIC SETTING

Regional Geology

A review of the geologic literature indicates that the site is underlain by both Quaternary artificial fill over marine and marsh deposits (Qmf) on the northern portion of the site, and Melánge throughout the rest of the site (Graymer et.al. 2000).

Seismic Setting

The entire San Francisco Bay Area, is considered to be an active seismic region due to the presence of several active faults. Three northwest-trending major earthquake faults that are responsible for the majority of the movement on San Andreas fault system extend through the Bay Area. They include the San Andreas fault, the Hayward fault and the Calaveras fault, which are respectively located approximately 7.2 miles to the southwest, 11.7 miles to the northeast and 24.6 miles to the east. The San Gregorio fault is located approximately 8.7 miles southwest of the site. Using information from recent earthquakes, improved mapping of active faults, and ann new model for estimating earthquake probabilities, the 2014 Working Group on California Earthquake Probabilities updated the 30 years earthquake forecast for California. They concluded that there is a 72 percent probability (or likelihood) of at least one earthquake of magnitude 6.7 greater striking somewhere in the San Francisco Bay region before 2043. A summary of the significant faults in the near vicinity of the site and their respective potential moment magnitudes are listed below.

Major Active Faults

Fault	Distance from Site (miles)	Probability of $M_w \geq 6.7$ within 30 Years[1]
San Andreas	7.2 (SW)	33%
San Gregorio	8.7 (SW)	5%
Hayward	11.7 (NE)	32%
Calaveras	24.6 (E)	26%

[1] Working Group on California Earthquake Probabilities, 2014

3.0 FIELD INVESTIGATION

Subsurface Exploration

Our subsurface exploration program consisted of drilling three exploratory borings at the site on June 6 and 7, 2018 at the approximate locations shown on the Site Plan, Figure 2. The borings were drilled using a portable Minute-Man drilling rig equipped with 3½-inch diameter continuous flight augers, and sampled to depths ranging from 20 to 22½ feet below the ground surface (bgs). The drilling process consisted of augering to the desired depth and upon reaching that depth, the auger was retrieved and a standard sampler connected to steel rods was lowered into the uncased hole. The samplers were driven with a 140-pound, safety hammer falling about 30 inches per drop. The samplers were driven up to 18 inches and the hammer blows required to drive the samplers were recorded every six inches and are presented on the boring logs.

Our project engineer supervised the drilling program, logged the soil conditions encountered in the borehole and collected representative samples for laboratory testing. Subsurface conditions revealed by our borings were described by our Project Engineer. The boring logs show soil description including: color, major and minor components, USCS classification, changes in soil conditions with depth, moisture content, consistency/density, plasticity, sampler type, and sampling depths and laboratory test results. Copies of the boring logs advanced for this investigation are presented in Appendix A.

Copies of the boring logs included in the geotechnical engineering investigation report by Trans Pacific Geotechnical Consultants, 2006 and supplemental geotechnical engineering investigation performed by Axiom Corporation, 2014 are present in Appendix C.

Subsurface Profile

A review of the borings previously advanced at the site by Trans Pacific Geotechnical Consultants, Inc. (2006) and Axiom Corporation (2014) reveal the presence of soft to stiff fat clay (CH) that extended to depths ranging from approximately 2 to 5 feet below the ground surface (bgs). Beneath this material the borings encountered soft to very stiff lean clay (CL) that contained variable percentages of sand. Underlying the upper clayey soils, borings B-1, B-5, and B-6 encountered bedrock consisting of sandstone and shale at depths of 20 feet, 20-½ feet, and 7 feet bgs, respectively.

The borings advanced for this investigation indicate the native surface soils consist 17 to 19 feet of stiff to very hard lean clay to sandy lean clay underlain by completely to moderately weathered sandstone to the maximum depths explored. The only exception was in boring B1 that was advanced south of the detached concrete garage which encountered approximately 3½ feet of very stiff lean clay fill material. The borings advanced for this investigation indicate lower plasticity, firmer soil than previously reported by other firms (Pacific Geotechnical Consultants and Axiom Corporation).

Groundwater was encountered in boring B2 at approximately 12½ feet below the ground surface. During the 2006 investigation by Trans Pacific Geotechnical Consultants, Inc., groundwater was encountered in all five borings advanced at the site. The depth to groundwater was measured at 14½ feet in boring B-1, 3 feet in Borings B-2 and B-3, 5 feet in Boring B-4, and 15½ feet in boring B-5. It should be noted, however, that fluctuations in the level of subsurface water can occur due to variations in rainfall, and temperature, and groundwater levels should not be considered constant.

4.0 DATA ANALYSIS

Subsurface Soil Classification

Based on the data acquired during our subsurface investigation (See Appendix A), the site is assigned to Site Class C (“very dense soil and soft rock”) as defined by Table 20.3-1 of the ASCE 7-10.

Seismic Design Parameters

The following seismic design parameters represent the general procedure as outlined in Section 1613 of the CBC and in ASCE 7. The values determined below are based on the 2009 National Earthquake Hazard Reduction Program (NEHRP) maps and were obtained using the United States Geological Survey’s Design Maps Web Application.

Summary of Seismic Parameters - CBC 2016
(Site Coordinates 37.8614°N, 122.4921°W)

Parameter	Design Value
Site Class	C
Mapped Short Term Spectral Response Parameter, (S_s)	1.5g
Mapped 1-second Spectral Response Parameter, (S_1)	0.64g
Site Coefficient, (F_a)	1.0
Site Coefficient, (F_v)	1.5
Site Modified Short Term Response Parameter, (S_{Ms})	1.50g
Site Modified 1-second Response Parameter, (S_{M1})	0.83g
Design Short Term Response Parameter, (S_{Ds})	1.00g
Design 1-second Response Parameter, (S_{D1})	0.55g

Liquefaction

The term liquefaction refers to the liquefied condition and subsequent softening that can occur in soils when they are subjected to cyclic strains, such as those generated during a seismic event. Studies of areas where liquefaction has occurred have led to the conclusion that saturated soil conditions, low soil density, grain sizes within a certain range, and a sufficiently strong earthquake, in combination, create a potential for liquefaction. The site is not in an area yet mapped by the California Geology Survey indicating seismic hazard zones; however, according to the Association of Bay Area Governments (ABAG) the northern portion of the site is mapped within an area as having a *very-high susceptibility* to liquefaction. Our borings, as well as the borings previously performed as part of the 2006 and 2014 investigations encountered clayey soils and bedrock at relatively shallow depths. Thus, measures are not considered necessary to mitigate potential soil liquefaction.

Static Settlement

The possibility of settlement is minimized by the light structural loads expected for the proposed improvements. Anticipated static settlements of the onsite native soils are on the order of 1 inch with a differential settlement of ½ inches. However, it is anticipated that fill will be required in portions of the site to create level building pads. Long-term settlement of properly compacted sand or gravel fill should be assumed to be about ½ percent of the depth of the fill. Long-term settlement of properly compacted clayey fill should be assumed to be about 1 percent of the depth of the fill. Therefore, the site grading should be designed to minimize the differential fill thickness across the building pads to reduce differential settlements.

5.0 CONCLUSIONS

General

The subject site is suitable for the proposed residential development from a geotechnical engineering standpoint, provided the recommendations included in this report are followed. The primary geotechnical concern at the site is the post-construction differential settlement because of large variation in the fill thickness across the pad. Recommendations for reducing large differential settlement are included in the following sections of the report.

Site Preparation and Grading

The site is currently occupied by four single-family residences, a concrete garage building, retaining walls, and flat work. Demolition of the existing structures and associated footings is anticipated to result in some ground depressions. These depressions should be backfilled in accordance with the recommendations included in the following sections of this report and under the observations of our field technician. Additional grading work is anticipated to include fill placement behind the retaining walls and the utility trenches. Grading operations are discussed in detail in the *Recommendations* section of this report.

Soil Expansion Potential

A plasticity index test performed on a sample of the upper soils from the site resulted in a liquid limit (LL) of 45 and a plasticity index (PI) of 26. These values indicate that the sample tested has a moderately high expansion potential. Soils with high shrinkage-swelling potential undergo pronounced volume changes with moisture content fluctuations and when constrained they could exert significant uplift forces on the overlying structures. Thus it will be important to place fill at a moisture content that is slightly above optimum. The soil subgrade should be kept moist until it is covered with concrete.

Foundations

Due to the firm nature of the onsite soils, the proposed loads of the northern building and the associated retaining walls may be adequately supported on conventional spread/strip footings. The southern residential building should be supported on a pier and a grade beam type foundation system. The two buildings should be structurally separated from each other. Details of the foundation recommendations are included in the following sections of the report.

Groundwater

Groundwater was encountered in boring B2 during the subsurface exploration at approximately 12½ feet below the surface. During the 2006 investigation by Trans Pacific Geotechnical Consultants, Inc., groundwater was encountered in all borings advanced at the site at depths of

14½, 3, 3, 5, and 15½ feet below the ground surface in borings B1, B2, B3, B4, and B5, respectively. These borings were drilled during the wet period. There is a possibly that groundwater may be encountered during construction and the contractor should be prepared to deal with wet soil conditions, and should be equipped to keeping excavations dry, if needed, prior to placing concrete.

Seismicity

The San Francisco Bay area is recognized by geologists and seismologists as one of the most seismically active regions in the United States. The significant earthquakes in this area are generally associated with crustal movement along well-defined, active fault zones which regionally trend in a northwesterly direction. Although research on earthquake prediction has greatly increased in recent years, seismologists cannot predict when and where an earthquake will occur. Nevertheless, based on current technology, it is reasonable to assume that the proposed development will be subjected to at least one moderate to severe earthquake during its lifetime. During such an earthquake, the danger from fault offset on the site is low, but strong shaking of the site is likely to occur and, therefore, the project should be designed in accordance with the seismic design provisions of the latest California Building Code. The California Building Code seismic design parameters are not intended to prevent structural damage during an earthquake, but to reduce damage and minimize loss of life.

6.0 RECOMMENDATIONS

Site Preparation and Grading

General Site Preparation

1. Site clearing, placement of fill, and grading operations at the site should be conducted in accordance with the recommendations provided in this report. Compaction recommendations for site grading can be found later in this section.

2. The site should be prepared for grading by removing structures scheduled for demolition, existing flatwork, existing trees and their root systems, vegetation, debris, and other potentially deleterious materials from areas to receive improvements. Existing utility lines that will not be serving the proposed project should be either removed or abandoned. The appropriate method of utility abandonment will depend upon the type and depth of the utility. Recommendations for abandonment can be made as necessary.

3. Due to potential ground disturbance from potential demolition activities, a program of over-excavation and backfilling may be required. Loose, disturbed soil within the existing building areas should be cleaned out (excavated) to competent, undisturbed soil. Over-

excavation of the upper 1 to 2 feet of existing ground may be needed. The lateral extent of the over-excavation should extend at least 5 feet beyond the perimeter of the proposed improvements, as determined in the field by the geotechnical engineering during grading operations. The exposed ground should be reviewed by the geotechnical engineer to determine the need for additional excavation work.

4. Ruts or depressions resulting from the removal of the previous building foundations, slabs, utilities, fill soils, tree root systems, and abandoned and/or buried structures, buried debris, and remnants of the former use of the site that are discovered during site grading should be removed and properly cleaned out down to undisturbed native soil. The bottoms of the resulting depressions should be scarified and cross-scarified at least 8 inches in depth, moisture conditioned and recompacted. The depressions should then be backfilled with approved, compacted, moisture conditioned structural fill, as recommended in other sections of this report.

5. Site clearing and backfilling operations should be conducted under the field observation of the geotechnical engineer.

6. The geotechnical engineer should be notified at least 48 hours prior to commencement of grading operations.

Compaction Recommendations

1. In general, the underlying native soil should be scarified at least 8 inches, moisture conditioned and recompacted to the recommended relative compaction presented below, unless noted otherwise. This scarification operation should be performed at locations designated for proposed structural fill, concrete slabs-on-grade, exterior flatwork, foundations, and pavement areas.

2. Recompacted native soils and fill soils should be compacted to a minimum relative compaction of 90 percent of maximum dry density at a moisture content at least 3 percentage points above optimum.

3. In areas to be paved, the upper 8 inches of subgrade soil should be compacted to a minimum 92 percent of maximum dry density at a moisture content at least 3 percentage points over optimum. The aggregate base courses should be compacted to a minimum 95 percent of maximum dry density at a moisture content that is slightly over optimum. The subgrade and base should be firm and unyielding when proof-rolled with heavy,

rubber-tired equipment prior to paving. The pavement subgrade soils should be periodically moistened as necessary prior to placement of the aggregate base to maintain the soil moisture content near optimum.

4. When backfilling the partial basement areas of the existing buildings, there is a chance that groundwater could be encountered. If groundwater is encountered during the excavation the geotechnical engineer should be notified to make recommendations for dewatering the excavation.

5. In order to minimize post-construction differential settlement below the floor slab, we recommend that the differential fill thickness across the pad should not exceed 3 feet. This may require over-excavation of native soil and placement as engineered fill.

Fill Recommendations

1. Structural fill is defined herein as a native or import fill material which, when properly compacted, will support foundations, building slabs, pavements, and other fills. The on-site native fill soils that are free of debris, organics and other deleterious material, may be used as structural fill.

2. Should import fill be required, the soil should meet the following criteria:
   a. Be coarse grained and have a plasticity index of less than 15 and/or an expansion index less than 20;
   b. Be free of organics, debris or other deleterious material;
   c. Have a maximum rock size of 3 inches; and
   d. Contain sufficient clay binder to allow for stable foundation and utility trench excavations.

3. Proposed imported soils should be submitted at least three days before being transported to the site for evaluation by the geotechnical engineer. During importation to the site the material should be further reviewed on an intermittent basis.

Foundations for the Northern Building

1. The northern residential development may be supported by conventional strip/spread footings bearing on the stiff native or engineered fill material. The footings should have minimum depths of 30 inches below the lowest adjacent grade. The interior footings should be a minimum of 30 inchs below the bottom of the slab. The footing excavations should be observed by the geotechnical engineer prior to placement of formwork or

reinforcement. The footings should extend into firm ground established by our field representative; therefore, the depth of the footings may be extended based on the observed field conditions.

2. The footings should be designed using a maximum allowable bearing capacity of 2,500 psf for dead plus live load. This value may be increased by one-third when transient loads such as wind or seismicity are included.

3. Resistance to lateral loads should be calculated based on a passive equivalent fluid pressure of 300 pcf and a friction factor of 0.30. Passive and frictional resistance can be combined in the calculations without reductions. These values are based on the assumption that backfill adjacent to foundations is properly compacted. The upper 12 inches of embedment should be disregarded in calculating passive resistance where concrete or asphalt pavement does not abut the foundation.

Foundations for the Northern Building

1. Due to the presence of sloping soil conditions, the proposed loads from the southern building may be supported on a drilled, cast-in-place, reinforced concrete pier and grade beam type foundation system. The piers should be a minimum of 16 inches in diameter and designed to extend a minimum of 8 feet into underlying sandstone bedrock.

2. To resist lateral loads, a passive equivalent fluid pressure of 300 pcf should be applied. Passive resistance may begin at a point on the foundation pier where there is at least 5 feet of horizontal cover to the slope face. This passive design pressure may be increased by one third when including short term forces from wind and seismic forces. The passive resistance may be applied over a one-and-a-half pier diameter tributary area.

3. Piers should be structurally tied to the grade beams. Isolated interior piers are not recommended. The actual design of the piers, their reinforcement, depth, size and spacing will depend upon actual building loads and should be determined by the architect/ engineer responsible for the foundation design. The perimeter grade beams should penetrate at least 18 inches into the prepared building pad at the residence.

4. The piers should not deviate from a plumb line by more than 2 percent of the pier length, as measured from the top to the point of interest. Adequate pier oversize may be assumed to provide the recommended tolerance. The bottoms of the pier excavations should be firm and should not contain excessive loose debris and slough material. Loose drilling spoils should be removed or compacted prior to placement of reinforcing steel.

5. Piers constructed on sloping ground, or within 15 feet of a downward slope, should be designed to resist creep force. The piers should be designed for a creep force of 50 pcf to a depth of 36 inches acting over a tributary area of 3 pier diameters.

6. Foundation piers should be drilled under the observation of a representative from Earth Systems who will verify the proper penetration depth into bedrock, and provide additional recommendations if unanticipated conditions are encountered during pier drilling operations.

Retaining Walls

1. Retaining walls that will be constructed as part of the northern building may be supported on conventional strip/spread footings utilizing the foundation recommendations presented in the Foundations section above. Retaining walls constructed as a part of the southern building may be supported on a drilled-cast-in-place reinforced concrete pier and a grade beam type foundation system utilizing the foundation recommendations presented in the Foundations section above.

2. Design criteria for retaining walls to laterally retain the on-site soils are presented below:

   Active equivalent fluid pressure (level backfill).....50 pcf
   At-rest equivalent fluid pressure (level backfill).....70 pcf

   The above earth pressures are for level backfill conditions. For sloping backfill, the above pressures should be increased by 3 pcf per every 5 degree increase in the backfill slope angle. No surcharge loads are taken into consideration in the above provided equivalent fluid pressures.

3. Surcharge loads applied at the surface on the backfill should be considered to be a uniformly distributed horizontal load. This load would equal to approximately 1/3 and 1/2 of the uniform surcharge load for “active” and “at-rest” conditions, respectively.

4. Retaining walls that are constructed as part of the residential buildings or are connected to the building foundations should be designed for at-rest pressures. Walls that are not restrained from rotation may be designed for active pressures.

5. If seismic forces are to be considered in the retaining wall design, the seismic increment of earth pressure should be 10H pounds per linear foot, where H is the height of the retained soil. The seismic pressure should be applied uniformly on the back of the wall along the height of the retained soil.

6. A concrete lined drainage ditch should be constructed at the top of exterior retaining walls to prevent surface irrigation or rain water originating upslope of the walls from flowing over the walls. The drainage ditch should lead to one or both ends of the retaining walls and discharge into an approved collection system.

7. In order to provide proper drainage, an import drain rock blanket should be placed behind the retaining walls. The drain rock blanket should be at least 12 inches wide, and extend along the entire length of the retaining wall. The drain rock blanket should extend from the top of the footing upward to within 2 feet of the top of the wall backfill. The upper 2 feet of backfill over the drainage medium should consist of native soil, compacted to at least 90 of maximum dry density, to reduce the flow of surface drainage into the wall drain system. The drain rock blanket should be separated from the backfill soil using a permeable synthetic fabric conforming to Caltrans Standard Specifications, Section 88-1.02B, Class A. Permeable material should conform to Section 68-2.02F(3), Class 2, of the Caltrans Standard Specifications. Manufactured synthetic drains such as Miradrain or Enkadrain may be used in lieu of drain rock and should be installed in accordance with the recommendations of the manufacturer. A 4-inch diameter, perforated/horizontal pipe should be placed at the bottom of the drain blanket/synthetic drains with perforations down. The pipe should discharge to an approved discharge point beyond and down slope of the wall.

8. The architect/engineer should bear in mind that retaining walls by their nature are flexible structures, and the flexibility can often cause cracking in surface coatings. Where walls are to be plastered or will otherwise have a finish surface applied, this flexibility should be considered in determining the suitability of the surfacing material, spacing of horizontal and vertical joints, connections to structures, etc.

9. Retaining walls facing habitable areas, or areas where intrusion of moisture would be undesirable, should be waterproofed in accordance with the specifications of the architect/engineer.

10. Retaining walls should be backfilled with either native soil or clean imported granular material. The backfill material should be placed in thin, moisture conditioned lifts, compacted in accordance with the recommendations provided in the Site Preparation and Grading section of this report.

11. Long-term settlement of properly compacted sand or gravel retaining wall backfill should be assumed to be about ½ percent of the depth of the backfill. Long-term settlement of properly compacted clayey retaining wall backfill should be assumed to be about 1 percent of the depth of the backfill. Improvements constructed near the tops of retaining walls should be designed to accommodate the estimated settlement.

Concrete Slab-on-Grade Construction

1. Interior slab-on-grade concrete should have a minimum thickness of 6 full inches and should be reinforced as directed by the architect/engineer.

2. Due to the moderate expansion potential of the soil, the slabs-on-grade can be cast directly upon the compacted subgrade soil. However, a 2 to 4-inch cushion layer of compacted low-expansive material such as clean sand or aggregate base would enhance the slab performance. If adverse conditions are encountered during grading, a layer of low-expansive material may be recommended by the geotechnical engineer.

3. For conventional interior slab-on-grade floor construction in areas which will receive carpet of other floor coverings or where moisture sensitive materials will be stored directly on the slab, a capillary break system that consists a vapor retarder and a 4-inch-thick, clean crushed rock layer should be placed above the pad subgrade to serve as a capillary break.

4. The vapor retarder should comply with ASTM Standard Specification E 1745-17 and the latest recommendations of ACI Committee 302. The vapor retarder should be installed in accordance with ASTM Standard Practice E 1643-17. Care should be taken to properly lap and seal the vapor retarder, particularly around utilities, and to protect it from damage during construction.

5. A sand layer over the vapor retarder is optional. If sand, gravel or other permeable material is to be placed over the vapor retarder, the material over the vapor retarder should be only lightly moistened and not saturated prior to casting the slab. Excess water above the vapor retarder would increase the potential for moisture damage to floor coverings. Recent studies, including those by ACI Committee 302, have concluded that excess water above the vapor retarder would increase the potential for moisture damage to floor coverings and could increase the potential for mold growth or other microbial contamination. These studies also concluded that it is preferable to eliminate the sand

layer and place the slab in direct contact with the vapor retarder, particularly during wet weather construction. However, placing the concrete directly on the vapor retarder would require special attention to using the proper vapor retarder, concrete mix design, and finishing and curing techniques.

6. When concrete slabs are in direct contact with vapor retarders, the concrete water to cement (w/c) ratio must be correctly specified to control bleed water and plastic shrinkage and cracking. The concrete w/c ratio for this type of application is typically in the range of 0.45 to 0.50. The concrete should be properly cured to reduce slab curling and plastic shrinkage cracking. Concrete materials, placement, and curing methods should be specified by the architect/engineer.

Exterior Flatwork

1. Exterior flatwork should have a minimum thickness of 4 full inches and should be reinforced as directed by the architect/engineer.

2. Due to the moderate expansion potential of the soil, exterior flatwork that will not experience vehicular traffic, can be cast directly upon the compacted subgrade soil. However, a 2 to 4-inch cushion layer of compacted low-expansive material such as clean sand or aggregate base would enhance the slab performance. Exterior flatwork that will be subject to vehicular traffic should be underlain by a minimum of 6-inch layer of compacted, non-expansive material such as clean sand or aggregate base. If adverse conditions are encountered during grading, a thicker layer of low-expansive material may be recommended by the geotechnical engineer.

3. Assuming that movement (i.e., 1/4-inch or more) of exterior flatwork beyond the structure is acceptable, the flatwork should be designed to be independent of the building foundations. The flatwork should not be doweled to foundations, and a separator should be placed between the two.

4. To reduce shrinkage cracks in concrete, the concrete aggregates should be of appropriate size and proportion, the water/cement ratio should be low, the concrete should be properly placed and finished, contraction joints should be installed, and the concrete should be properly cured. Concrete materials, placement and curing specifications should be at the direction of the designer; ACI 302.1R-04 and ACI 302.2R-04 are suggested as resources for the designer in preparing such specifications.

Utility Trench Backfills

1. A select, noncorrosive, granular, easily compacted material should be used as bedding and shading immediately around utility pipes. The site soils may be used for trench backfill above the select material.

2. Trench backfill in the upper 8 inches of subgrade beneath pavement areas should be compacted to a minimum of 92 percent of maximum dry density at a moisture content at least 3 percentage points above optimum moisture content and the aggregate base courses should be compacted to a minimum 95 percent of maximum dry density at a moisture content slightly over optimum. Trench backfill in other areas should be compacted to a minimum of 90 percent of maximum dry density at a moisture content at least 3 percentage points above optimum moisture content. Jetting of utility trench backfill should not be allowed.

3. Where utility trenches extend under perimeter foundations, the trenches should be backfilled entirely with approved fill soil compacted to a minimum of 90 percent of maximum dry density at a moisture content at least 3 percentage points above optimum moisture content. The zone of approved fill soil should extend a minimum distance of 2 feet on both sides of the foundation. If utility pipes pass through sleeves cast into the perimeter foundations, the annulus between the pipes and sleeves should be completely sealed.

4. Parallel trenches excavated in the area under foundations defined by a plane radiating at a 45-degree angle downward from the bottom edge of the footing should be avoided, if possible. Trench backfill within this zone, if necessary, should consist of Controlled Density Fill (Flowable Fill).

Site Drainage and Finish Improvements

1. Unpaved ground surfaces should be finish graded to direct surface runoff away from site improvements at a minimum 5 percent grade for a minimum distance of 10 feet. If this is not practical due to the terrain or other site features, swales with improved surfaces should be provided to divert drainage away from improvements. The landscaping should be planned and installed to maintain proper surface drainage conditions.

2. Runoff from driveways, roof gutters, downspouts, planter drains and other improvements should discharge in a non-erosive manner away from foundations, pavements, and other improvements. The downspouts may discharge onto splash blocks that direct the flow away from the foundation.

3. Stabilization of surface soils, particularly those disturbed during construction, by vegetation or other means during and following construction is essential to protect the site from erosion damage. Care should be taken to establish and maintain vegetation.

4. Raised planter beds adjacent to foundations should be provided with sealed sides and bottoms so that irrigation water is not allowed to penetrate the subsurface beneath foundations. Outlets should be provided in the planters to direct accumulated irrigation water away from foundations.

5. Open areas adjacent to exterior flatwork should be irrigated or otherwise maintained so that constant moisture conditions are created throughout the year. Irrigation systems should be controlled to the minimum levels that will sustain the vegetation without saturating the soil.

6. Bio-retention swales constructed within 10 feet or less from the building foundation should be lined with a 20-mil pond liner.

Geotechnical Observation and Testing

1. It must be recognized that the recommendations contained in this report are based on a limited number of borings and rely on continuity of the subsurface conditions encountered.

2. It is assumed that the geotechnical engineer will be retained to provide consultation during the design phase, to interpret this report during construction, and to provide construction monitoring in the form of testing and observation.

3. Unless otherwise stated, the terms "compacted" and "recompacted" refer to soils placed in level lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 90 percent of maximum dry density. The standard tests used to define maximum dry density and field density should be ASTM D 1557-12 and ASTM D 6938-17, respectively, or other methods acceptable to the geotechnical engineer and jurisdiction.

4. “Moisture conditioning” refers to adjusting the soil moisture to at least 2 percentage points above optimum moisture content prior to application of compactive effort. If the soils are overly moist so that they become unstable, or if the recommended compaction cannot be readily achieved, drying the soil to optimum moisture content or just above may be necessary. Placement of gravel layers or geotextiles may also be necessary to

help stabilize unstable soils. The geotechnical engineer should be contacted for recommendations for mitigating unstable soils.

5. At a minimum, the following should be provided by the geotechnical engineer:

   - Review of final grading and foundation plans,
   - Professional observation during site preparation, grading, and foundation excavation,
   - Oversight of soil compaction testing during grading,
   - Oversight of soil special inspection during grading.

6. Special inspection of grading should be provided as per Section 1705.6 and 1705.8 and Table 1705.6 and 1705.8 of the CBC; the soils special inspector should be under the direction of the geotechnical engineer. In our opinion, the following operations should be subject to *continuous* soils special inspection:

   - Scarification and recompaction,
   - Fill placement and compaction,
   - Foundation pier drilling,
   - Over-excavation to the recommended depth.

7. In our opinion, the following operations may be subject to *periodic* soils special inspection; subject to approval by the Building Official:

   - Site preparation,
   - Compaction of utility trench backfill,
   - Removal of existing development features,
   - Compaction of subgrade and aggregate base,
   - Observation of foundation excavations,
   - Building pad moisture conditioning.

8. It will be necessary to develop a program of quality control prior to beginning grading. It is the responsibility of the owner, contractor, or project manager to determine any additional inspection items required by the architect/engineer or the governing jurisdiction.

9. The locations and frequencies of compaction tests should be as per the recommendations of the geotechnical engineer at the time of construction. The recommended test locations and frequencies may be subject to modification by the geotechnical engineer

based upon soil and moisture conditions encountered, the size and type of equipment used by the contractor, the general trend of the compaction test results, and other factors.

10. A preconstruction conference among a representative of the owner, the geotechnical engineer, soils special inspector, the architect/engineer, and contractors is recommended to discuss planned construction procedures and quality control requirements. Earth Systems should be notified at least 48 hours prior to beginning grading operations.

7.0 CLOSURE

This report is valid for conditions as they exist at this time for the type of project described herein. Our intent was to perform the investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project at this time under similar conditions. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client as discussed in the Scope of Services section. Application beyond the stated intent is strictly at the user's risk.

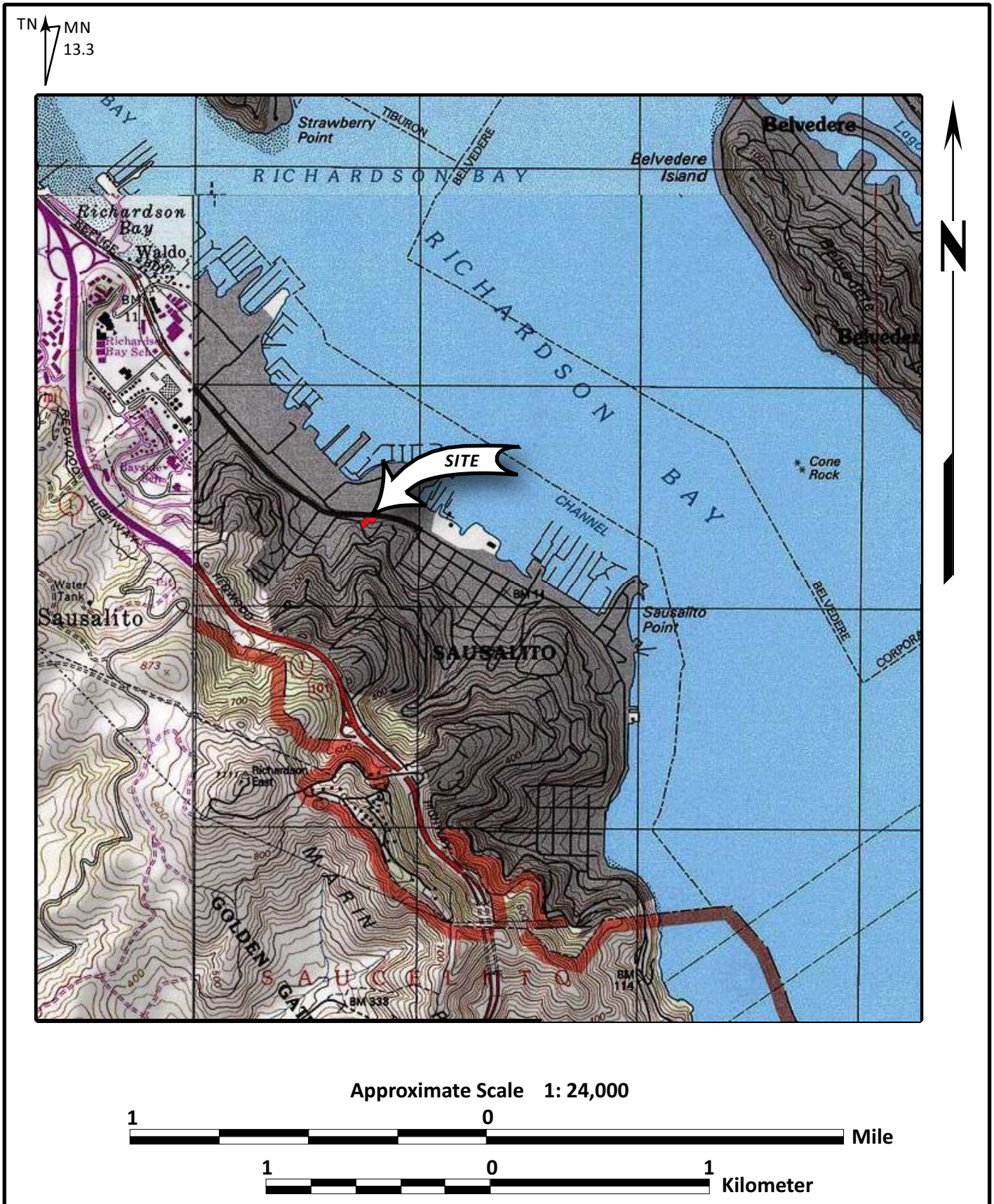
If changes with respect to the project type or location become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions stated in this report are not correct, Earth Systems should be notified for modifications to this report. Any items not specifically addressed in this report should comply with the California Building Code and the requirements of the governing jurisdiction.

The preliminary recommendations of this report are based upon the geotechnical conditions encountered during the investigation, and may be augmented by additional requirements of the architect/engineer, or by additional recommendations provided by this firm based on conditions exposed at the time of construction.

If Earth Systems is not retained to provide construction observation and testing services, it will not be responsible for the interpretation of the information by others or any consequences arising there from.

FIGURES

Figure 1



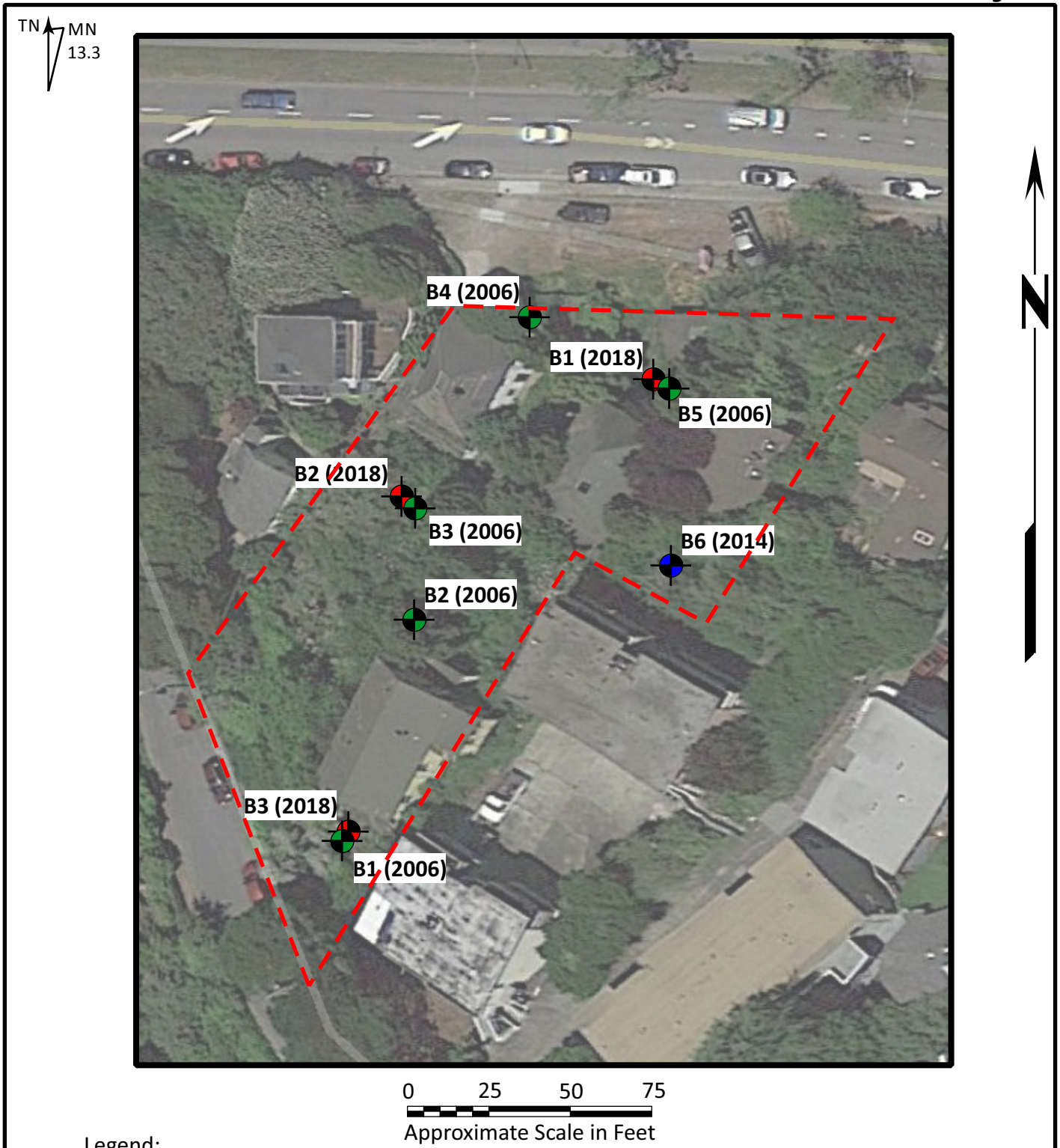
Approximate Scale 1: 24,000

1 0 1 Mile

1 0 1 Kilometer

Earth Systems Pacific	Bridgeway Commons 1751-1757 Bridgeway Commons and 160 Filbert Avenue Sausalito, California	**Site Location Map** **302110-001**

Figure 2



Legend:

- Boring Location, Earth Systmes 2018
- Boring Location, Axiom Corporation 2014
- Boring Location, Trans Pacific Geotechnical Consultants 2006
- Site Boundary

Earth Systems Pacific	Bridgeway Commons 1751-1757 Bridgeway Commons and 160 Filbert Avenue Sausalito, California	Site Plan 302110-001

Figure 3

Earth Systems Pacific	Bridgeway Commons 1751-1757 Bridgeway Commons and 160 Filbert Avenue Sausalito, California	Site Development Plan 302110-001

APPENDIX A

Boring Logs

Earth Systems Pacific

Boring No. 1
PAGE 1 OF 1
JOB NO.: 302110-001
DATE: 6/6/2018

LOGGED BY: K. Ortiz
DRILL RIG: Hydraulic Portable
AUGER TYPE: 3" Continuous Flight Auger

LNSO Temple
48437 Warm Springs Boulevard
Fremont, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0 - 3	CL		SANDY LEAN CLAY; very stiff, dark gray brown, moist, some red and yellow brown sand, fine-grained sand, trace rootlets [FILL] [Normal Stress=1500 psf, Shear Strength=1125 psf]	1.0-2.5	1-1	■	109	13.8	6 10 11	<4.5
4 - 7	CL		LEAN CLAY WITH SAND; very stiff, olive brown,moist, heavy oxidation staining, fine-grained sand, trace coarse-grained sand [NATIVE] [Normal Stress=2000 psf, Shear Strength=2250 psf]	3.5-5.0	1-2	■	107	20.6	6 13 19	<4.5
8 - 13	CL		SANDY LEAN CLAY; hard, yellow brown, moist, fine-grained sand, heavy oxidation staining, some sandstone fragments [Normal Stress=3000 psf, Shear Strength=6450 psf]	8.5-10.0	1-3	■	122	12.6	13 24 30	<4.5
14 - 17			[Normal Stress=4000 psf, Shear Strength=3495 psf]	13.5-15.0	1-4	■	111	19.1	15 25 30	4.5
18 - 20	ROCK		SANDSTONE; completely weathered to a clayey sand matrix, light yellow brown, soft to firm -moderately weathered	20.5-20.5	1-5	●			50/6"	
21 - 26			Bottom of boring at 20.5' Groundwater not encountered							

LEGEND: ■ 2.5" Mod Cal Sample ○ Bulk Sample ▭ 2" Cal Sample ● SPT ⏚ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring No. 2
PAGE 1 OF 1
JOB NO.: 302110-001
DATE: 6/6/2018

LOGGED BY: K. Ortiz
DRILL RIG: Hydraulic Portable
AUGER TYPE: 3" Continuous Flight Auger

LNSO Temple
48437 Warm Springs Boulevard
Fremont, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	CL		SANDY LEAN CLAY; very stiff, dark brown, moist, fine-grained sand, some yellow brown sand, trace rootlets							
1									9	
2			[Normal Stress=2000 psf, Shear Strength=2900 psf]	1.0-2.5	2-1	■	109	13.8	11 14	<4.5
3			-color change to yellow brown							
4									8	
5			[Normal Stress=3000 psf, Shear Strength=2730 psf]	3.5-5.0	2-2	■	107	20.6	14 18	<4.5
6										
7										
8										
9									8	
10			-hard [Normal Stress=4000 psf, Shear Strength=3830 psf]	8.5-10.0	2-3	■	122	12.6	15 23	3
11			-color change to olive gray							
12			▼							
13										
14			-color change to dark yellow brown [LL=45, PI=26]						13	
15			[Normal Stress=5000 psf, Shear Strength=3570 psf]	13.5-15.0	2-4	■	111	19.2	20 30	<4.5
16										
17										
18										
19									16	
20	ROCK		SANDSTONE; completely to highly weathered to a clayey matrix, yellow brown, firm	18.5-19.5	2-3	■	122	12.6	50/6"	<4.5
21			-sandy matrix							
22				21.5-22.0	2-3	●	122	12.6	50/6	
23			Bottom of boring at 22.5' Groundwater encountered at 12.5'							
24										
25										
26										

LEGEND: ■ 2.5" Mod Cal Sample ○ Bulk Sample ▭ 2" Cal Sample ● SPT ▼ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

Earth Systems Pacific

Boring No. 3
PAGE 1 OF 1

LOGGED BY: K. Ortiz
DRILL RIG: Hydraulic Portable
AUGER TYPE: 3" Continuous Flight Auger

JOB NO.: 302110-001
DATE: 6/7/2018

LNSO Temple
48437 Warm Springs Boulevard
Fremont, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE NUMBER	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.	POCKET PEN (t.s.f)
0	CL		SANDY LEAN CLAY; stiff, dark brown, moist, fine-grained sand, trace brick fragments [FILL]							
1									6	
2									7	
3			[Normal Stress=1500 psf, Shear Strength=820 psf]	1.0-2.5	3-1	■	100	14.4	10	<4.5
4	CL		LEAN CLAY WITH SAND; very stiff, olive brown,moist, heavy oxidation staining [NATIVE]						6	
5			[Normal Stress=2000 psf, Shear Strength=2080 psf]	3.5-5.0	3-2	■	110	18.7	10 15	2.5
6										
7										
8			-hard, trace sandstone fragments							
9									10	
10			[Normal Stress=3000 psf, Shear Strength=3195 psf]	8.5-10.0	3-3	■	108	20.5	20 30	4.25
11										
12			-color change to yellow brown, increase in sandstone fragments							
13										
14			-color change to dark yellow brown						12	
15			[Normal Stress=5000 psf, Shear Strength=3945 psf]	13.5-15.0	3-4	■			21 30	<4.5
16										
17										
18	CL		SANDSTONE; completely to highly weathered to sandy clay matrix, yellow brown, soft to firm							
19				18.5-19.0	3-5A	■	119	13.6	50/6"	<4.5
20				19.0-20.0	3-5B	●			30 50/6"	
21			Bottom of boring at 20.0' Groundwater not encountered							
22										
23										
24										
25										
26										

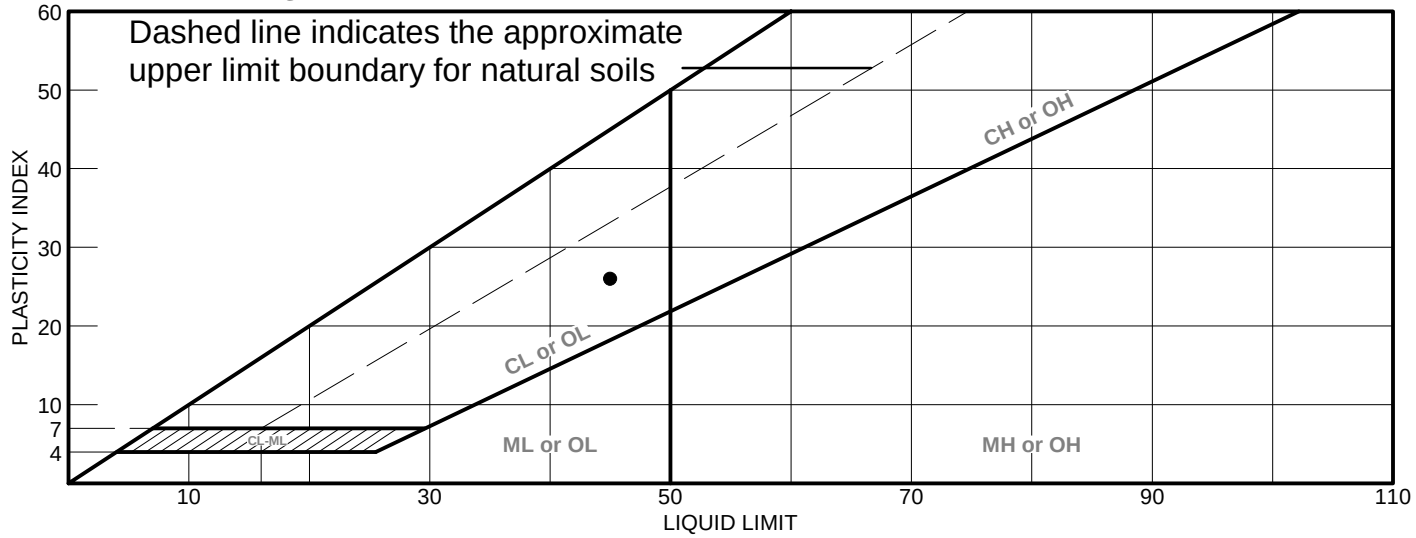
LEGEND: ■ 2.5" Mod Cal Sample ○ Bulk Sample ▭ 2" Cal Sample ● SPT ⏚ Groundwater

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

APPENDIX B

Laboratory Test Results

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Yellowish Brown Lean CLAY w/ Sand	45	19	26			

Project No. 218-097 **Client:** Earth Systems Pacific

Project: Bridgeway Commons - 302110-001

● **Source:** B-2 **Sample No.:** 4 **Elev./Depth:** 14.5'

Remarks:

●

LIQUID AND PLASTIC LIMITS TEST REPORT

COOPER TESTING LABORATORY

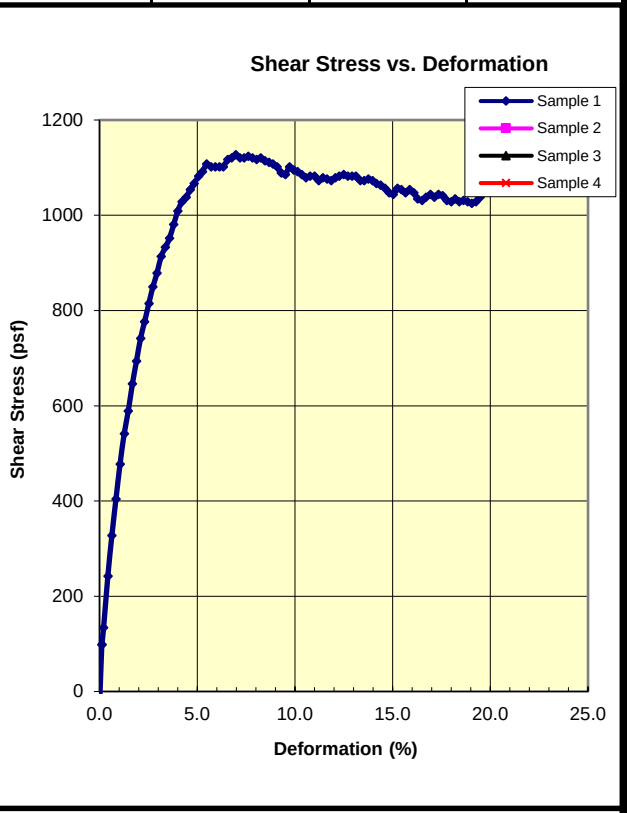
Figure

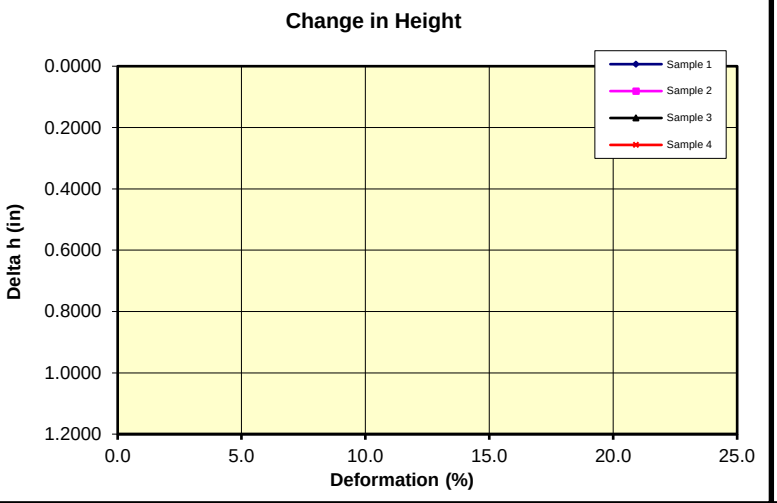
Consolidated Undrained Direct Shear (ASTM D3080M)

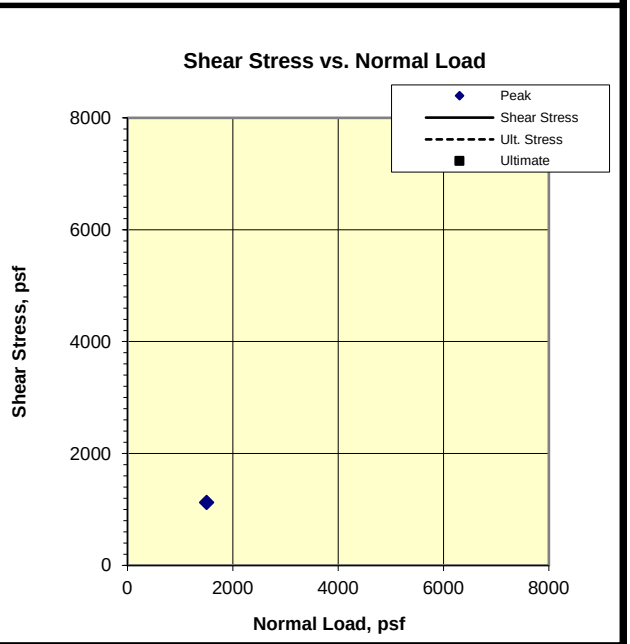
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:		Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	

Specimen Data	1	2	3	4
Boring:	B-1			
Sample:	1			
Depth (ft):	2			
Visual Description:	Dark Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	1500			
Dry Mass of Specimen (g)	129.2			
Initial Height (in)	1.00			
Initial Diameter (in)	2.40			
Initial Void Ratio	0.549			
Initial Moisture (%)	13.8			
Initial Wet Density (pcf)	123.8			
Initial Dry Density (pcf)	108.8			
Initial Saturation (%)	67.9			
ΔHeight Consol (in)	0.0199			
At Test Void Ratio	0.518			
At Test Moisture (%)	17.8			
At Test Wet Density (pcf)	130.8			
At Test Dry Density (pcf)	111.0			
At Test Saturation (%)	93.0			
Strain Rate (%/min)	0.9			
Strengths Picked at	Peak			
Shear Stress (psf)	1127			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				







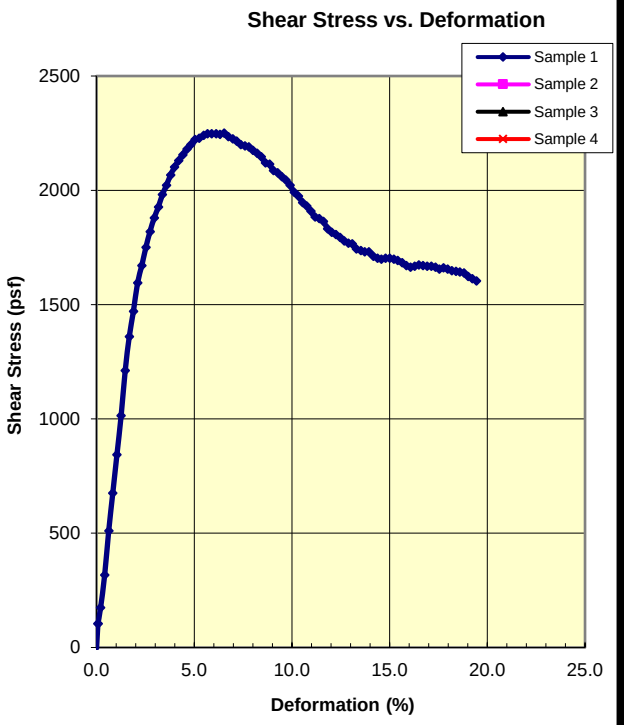
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

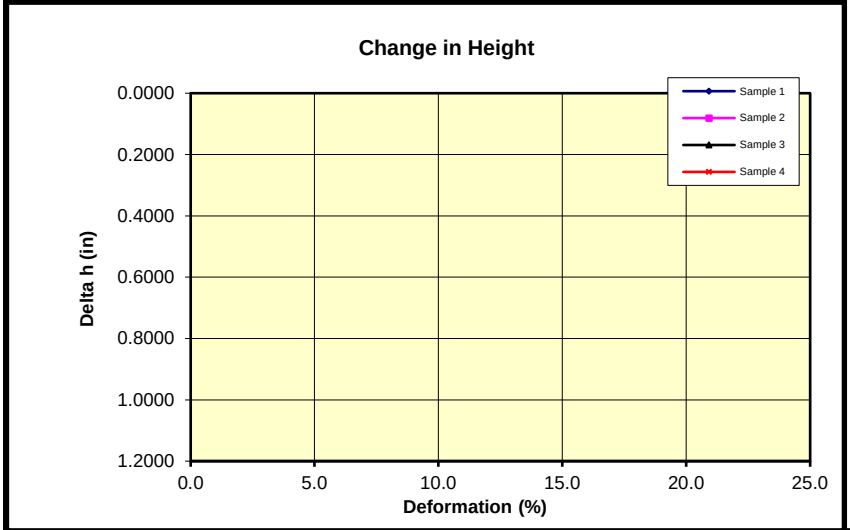
Consolidated Undrained Direct Shear (ASTM D3080M)

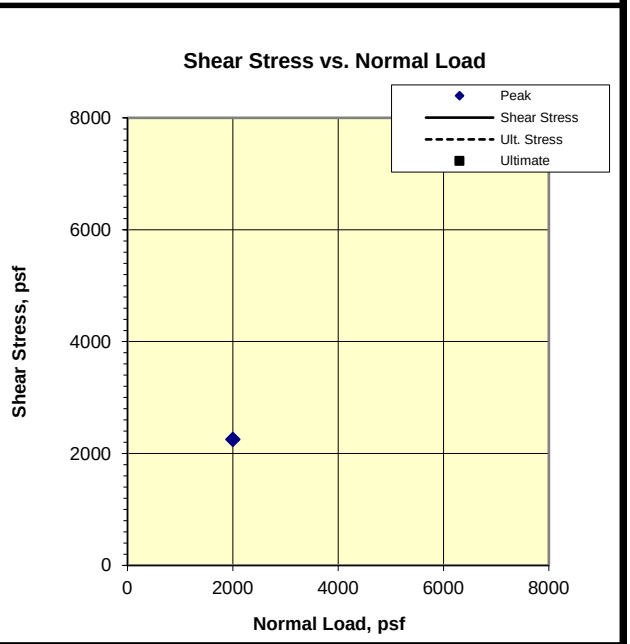
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/21/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	

Specimen Data	1	2	3	4
Boring:	B-1			
Sample:	2			
Depth (ft):	4.5			
Visual Description:	Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	2000			
Dry Mass of Specimen (g)	127.9			
Initial Height (in)	1.00			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.629			
Initial Moisture (%)	20.6			
Initial Wet Density (pcf)	129.4			
Initial Dry Density (pcf)	107.3			
Initial Saturation (%)	91.7			
ΔHeight Consol (in)	0.0161			
At Test Void Ratio	0.603			
At Test Moisture (%)	21.3			
At Test Wet Density (pcf)	132.3			
At Test Dry Density (pcf)	109.0			
At Test Saturation (%)	99.0			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	2251			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				







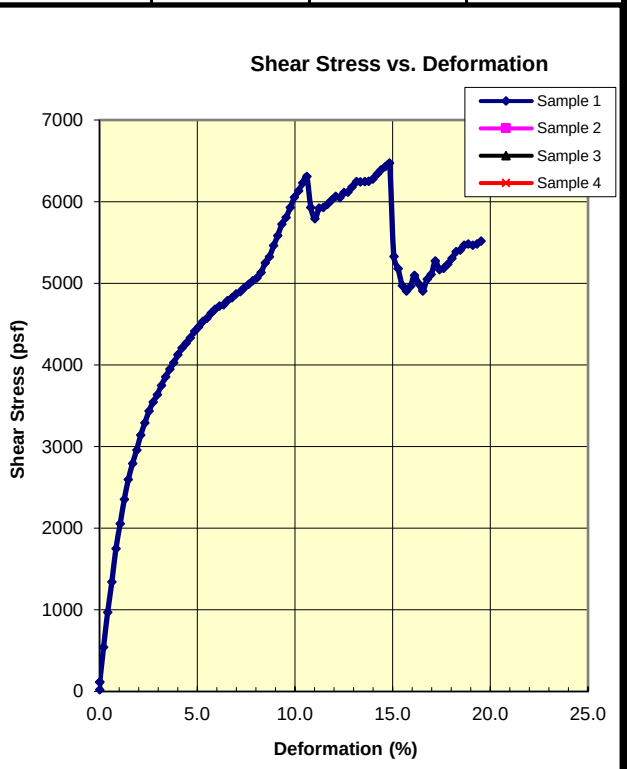
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

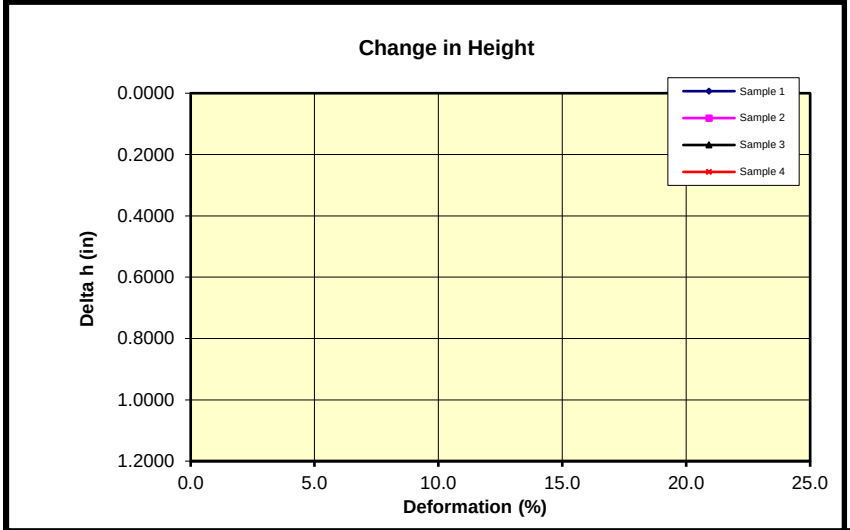
Consolidated Undrained Direct Shear (ASTM D3080M)

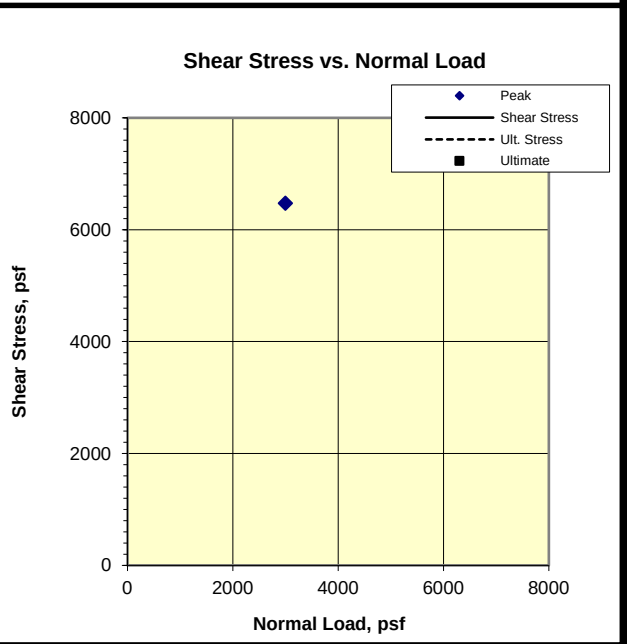
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/22/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-1			
Sample:	3			
Depth (ft):	9.5			
Visual Description:	Yellowish Brown CLAY w/ Sand & Gravel			
Normal Load (psf)	3000			
Dry Mass of Specimen (g)	146.2			
Initial Height (in)	1.00			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.381			
Initial Moisture (%)	12.6			
Initial Wet Density (pcf)	137.4			
Initial Dry Density (pcf)	122.1			
Initial Saturation (%)	89.1			
ΔHeight Consol (in)	0.0105			
At Test Void Ratio	0.366			
At Test Moisture (%)	13.3			
At Test Wet Density (pcf)	139.8			
At Test Dry Density (pcf)	123.4			
At Test Saturation (%)	98.4			
Strain Rate (%/min)	0.9			
Strengths Picked at	Peak			
Shear Stress (psf)	6474			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







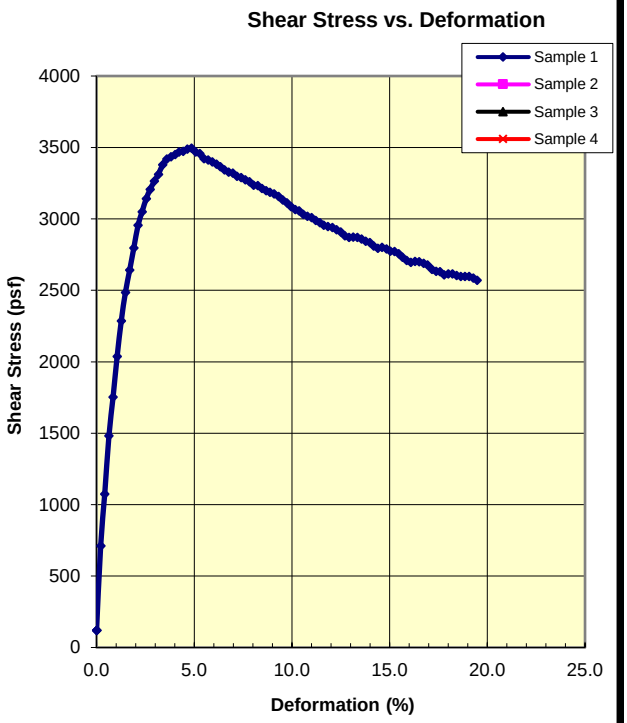
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests. Gravel in shear plane of sample may influence results.

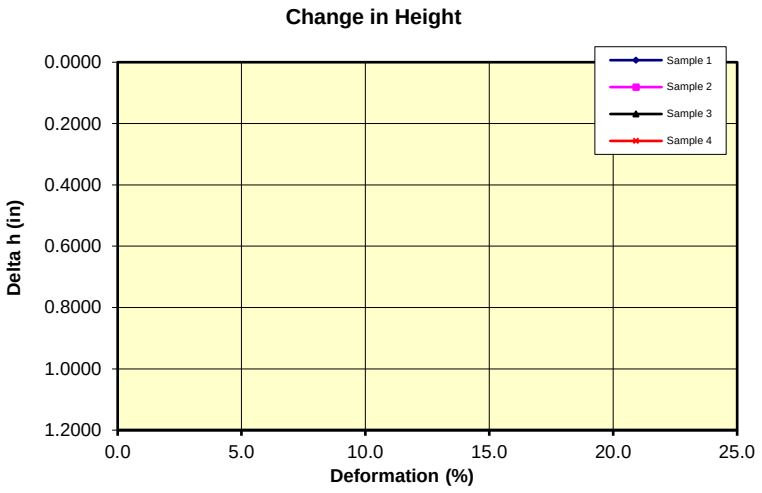
Consolidated Undrained Direct Shear (ASTM D3080M)

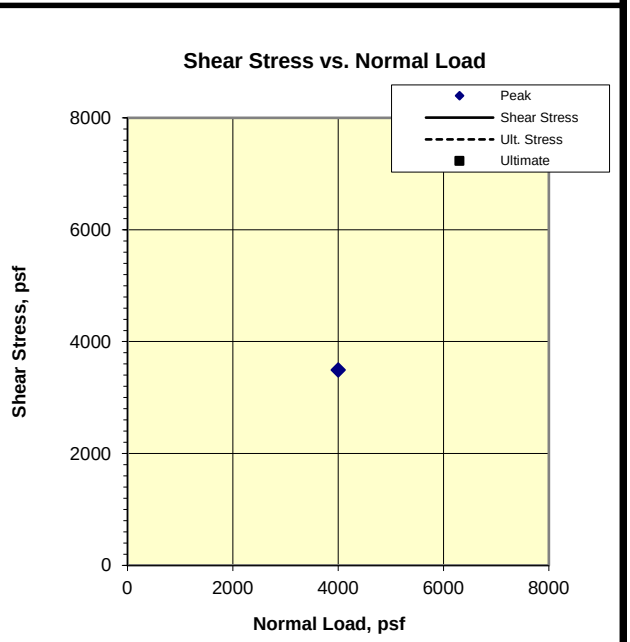
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/22/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-1			
Sample:	4			
Depth (ft):	14.5			
Visual Description:	Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	4000			
Dry Mass of Specimen (g)	134.2			
Initial Height (in)	1.01			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.519			
Initial Moisture (%)	19.1			
Initial Wet Density (pcf)	132.2			
Initial Dry Density (pcf)	111.0			
Initial Saturation (%)	99.5			
ΔHeight Consol (in)	0.0273			
At Test Void Ratio	0.478			
At Test Moisture (%)	17.6			
At Test Wet Density (pcf)	134.2			
At Test Dry Density (pcf)	114.0			
At Test Saturation (%)	99.7			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	3495			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







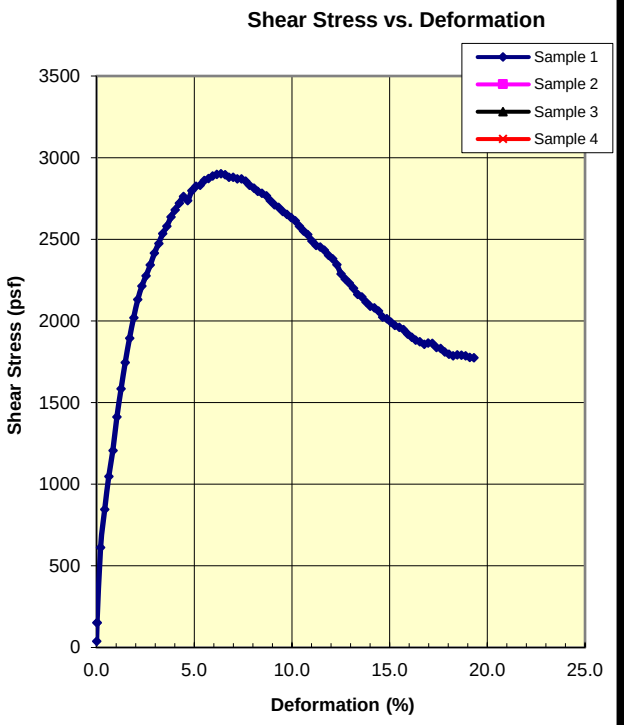
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

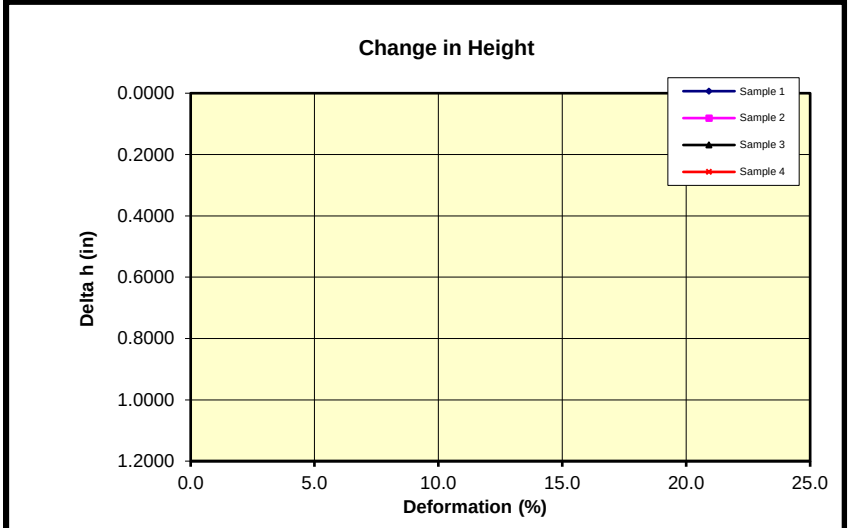
Consolidated Undrained Direct Shear (ASTM D3080M)

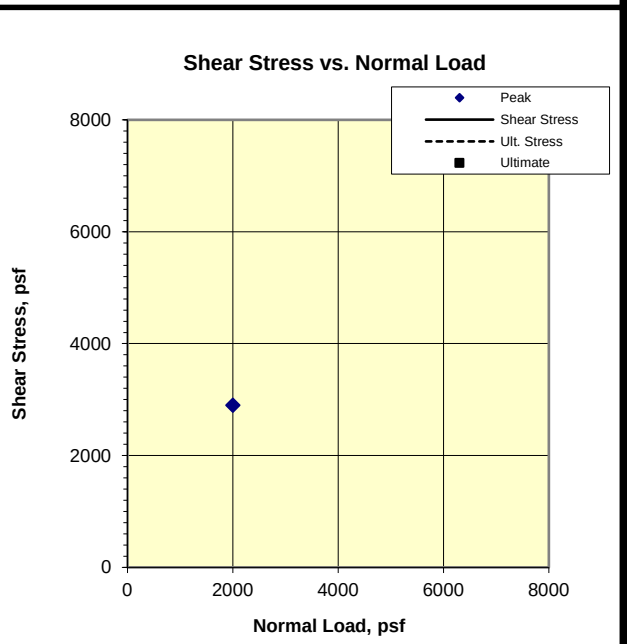
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/22/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-2			
Sample:	2			
Depth (ft):	4.5			
Visual Description:	Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	2000			
Dry Mass of Specimen (g)	121.7			
Initial Height (in)	1.01			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.667			
Initial Moisture (%)	24.4			
Initial Wet Density (pcf)	125.7			
Initial Dry Density (pcf)	101.1			
Initial Saturation (%)	98.6			
ΔHeight Consol (in)	0.0133			
At Test Void Ratio	0.645			
At Test Moisture (%)	23.7			
At Test Wet Density (pcf)	126.7			
At Test Dry Density (pcf)	102.4			
At Test Saturation (%)	99.1			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	2901			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







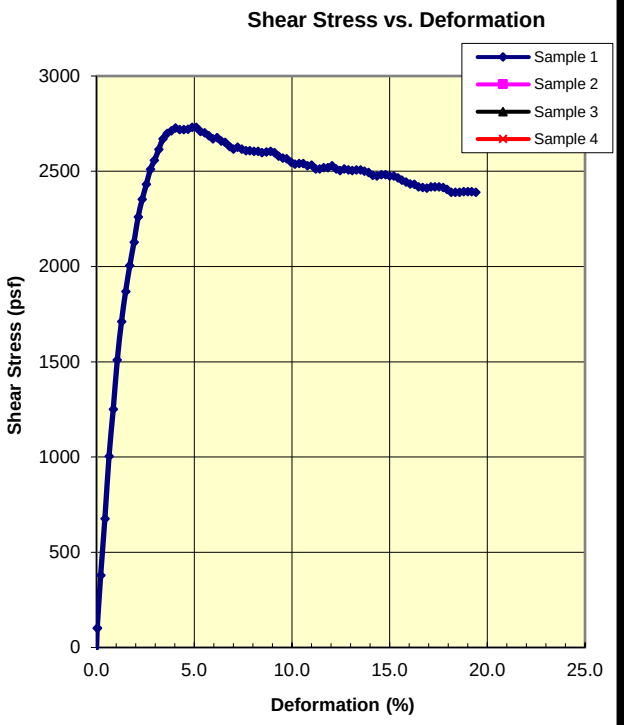
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

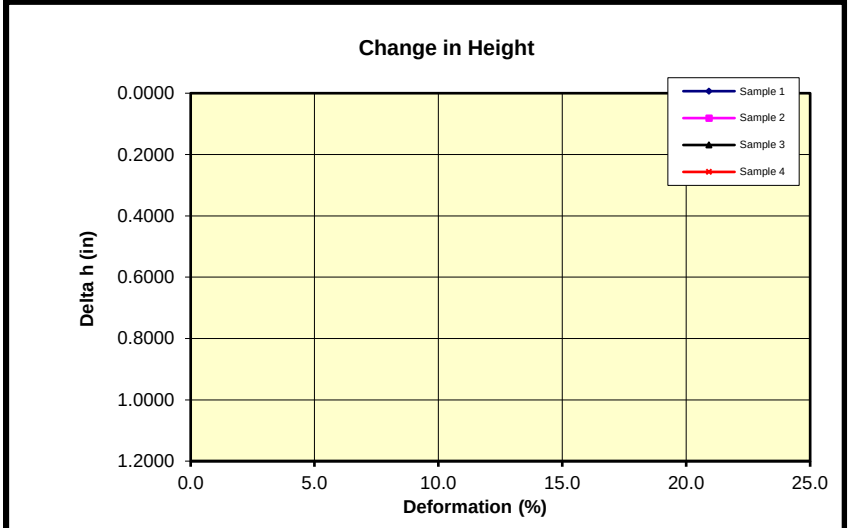
Consolidated Undrained Direct Shear (ASTM D3080M)

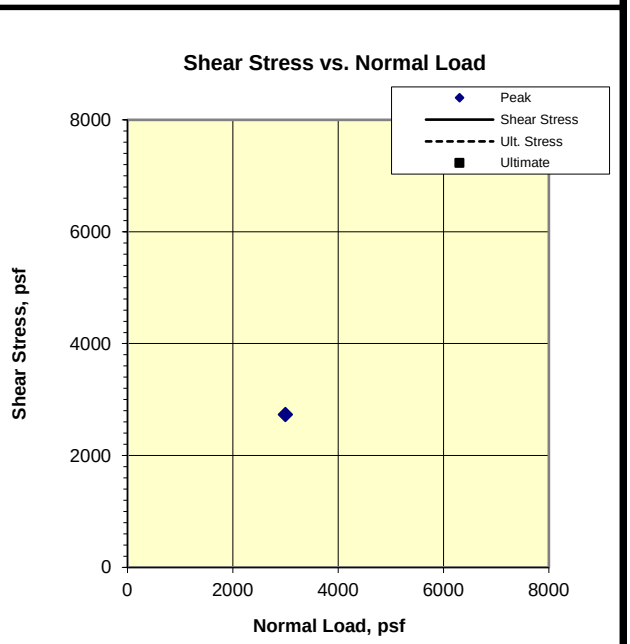
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/22/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-2			
Sample:	3			
Depth (ft):	9.5			
Visual Description:	Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	3000			
Dry Mass of Specimen (g)	132.1			
Initial Height (in)	1.00			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.527			
Initial Moisture (%)	18.8			
Initial Wet Density (pcf)	131.1			
Initial Dry Density (pcf)	110.3			
Initial Saturation (%)	96.2			
ΔHeight Consol (in)	0.0196			
At Test Void Ratio	0.498			
At Test Moisture (%)	18.4			
At Test Wet Density (pcf)	133.3			
At Test Dry Density (pcf)	112.6			
At Test Saturation (%)	99.9			
Strain Rate (%/min)	0.9			
Strengths Picked at	Peak			
Shear Stress (psf)	2731			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







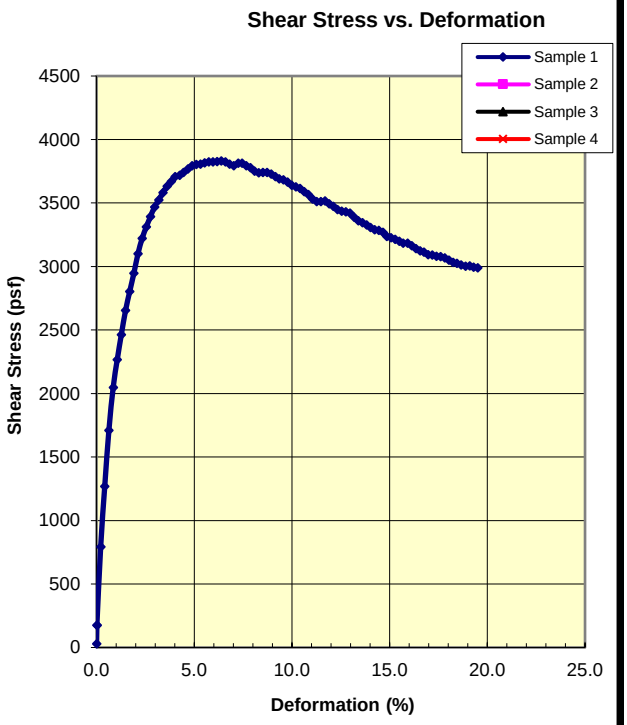
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

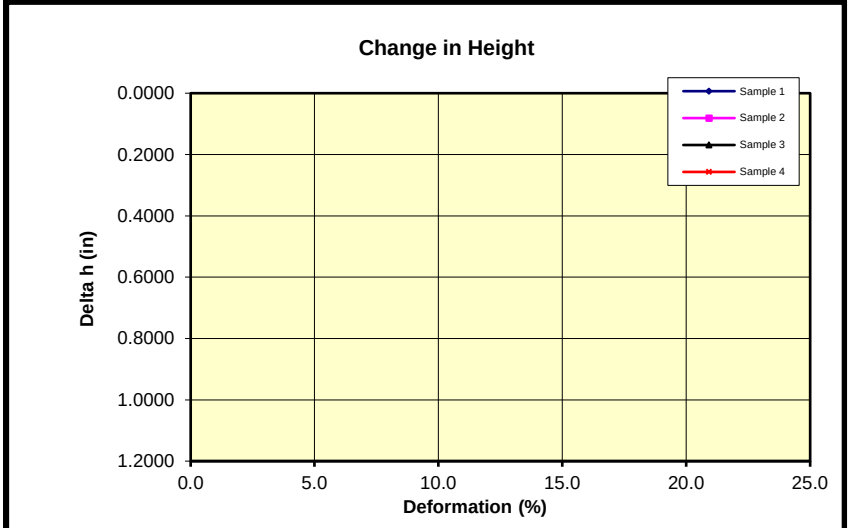
Consolidated Undrained Direct Shear (ASTM D3080M)

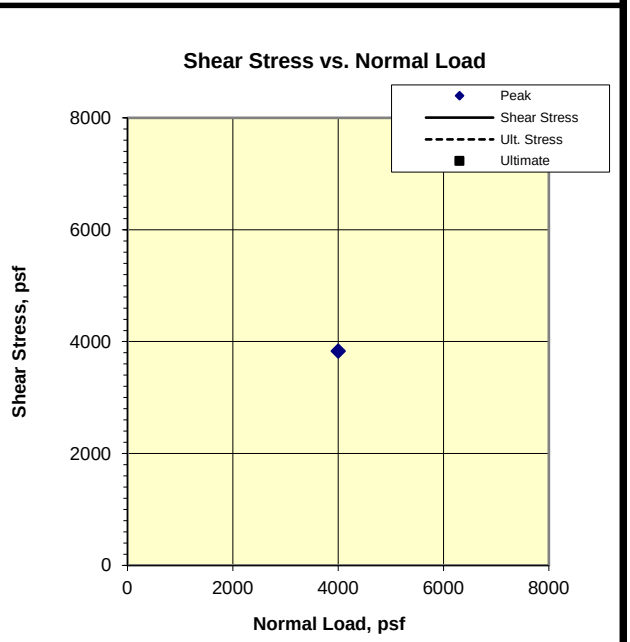
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/21/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	

Specimen Data	1	2	3	4
Boring:	B-2			
Sample:	4			
Depth (ft):	14.5			
Visual Description:	Yellowish Brown Lean CLAY w/ Sand			
Normal Load (psf)	4000			
Dry Mass of Specimen (g)	136.4			
Initial Height (in)	1.01			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.535			
Initial Moisture (%)	17.5			
Initial Wet Density (pcf)	133.7			
Initial Dry Density (pcf)	113.8			
Initial Saturation (%)	91.3			
ΔHeight Consol (in)	0.0145			
At Test Void Ratio	0.513			
At Test Moisture (%)	18.3			
At Test Wet Density (pcf)	136.6			
At Test Dry Density (pcf)	115.5			
At Test Saturation (%)	99.8			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	3832			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				







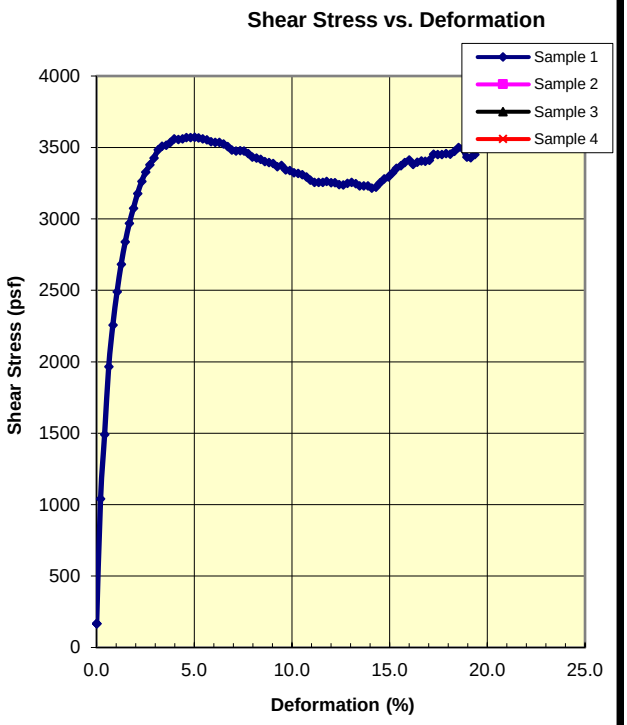
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

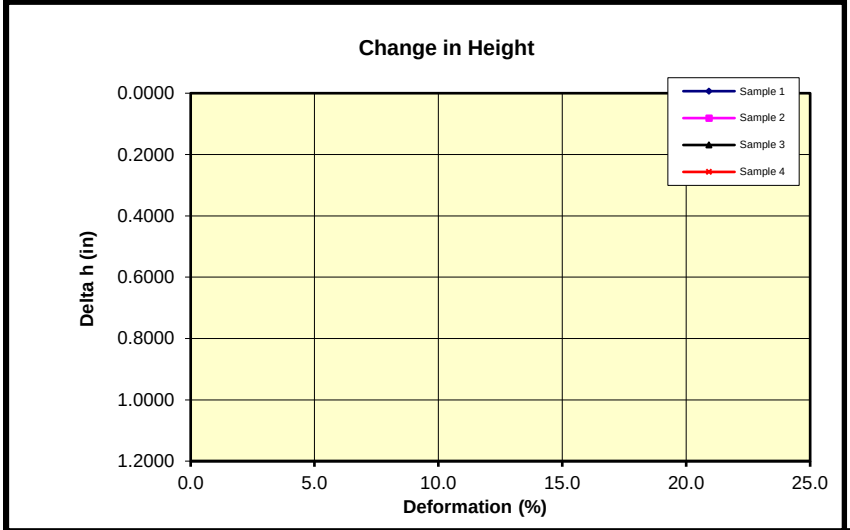
Consolidated Undrained Direct Shear (ASTM D3080M)

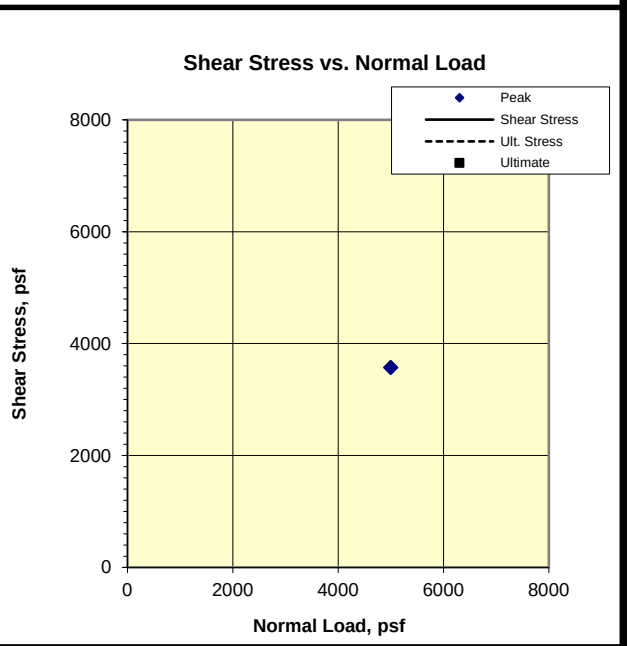
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/25/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data	1	2	3	4
Boring:	B-2			
Sample:	5			
Depth (ft):	19			
Visual Description:	Yellowish Brown Sandy CLAY			
Normal Load (psf)	5000			
Dry Mass of Specimen (g)	130.6			
Initial Height (in)	1.01			
Initial Diameter (in)	2.42			
Initial Void Ratio	0.603			
Initial Moisture (%)	20.0			
Initial Wet Density (pcf)	128.5			
Initial Dry Density (pcf)	107.1			
Initial Saturation (%)	91.3			
ΔHeight Consol (in)	0.0338			
At Test Void Ratio	0.550			
At Test Moisture (%)	19.9			
At Test Wet Density (pcf)	132.9			
At Test Dry Density (pcf)	110.8			
At Test Saturation (%)	99.7			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	3572			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







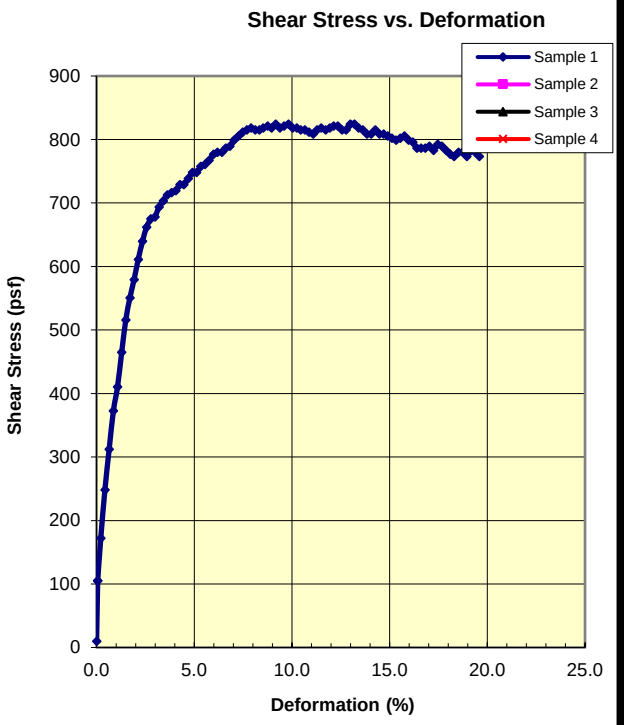
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

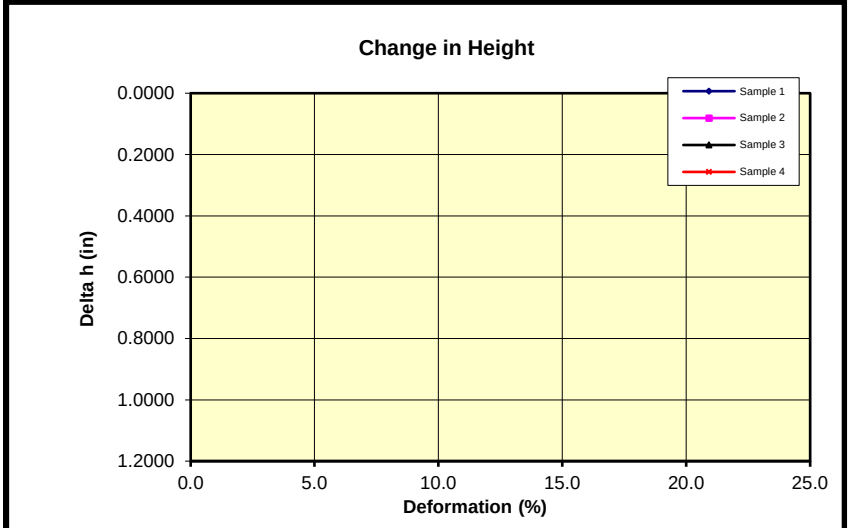
Consolidated Undrained Direct Shear (ASTM D3080M)

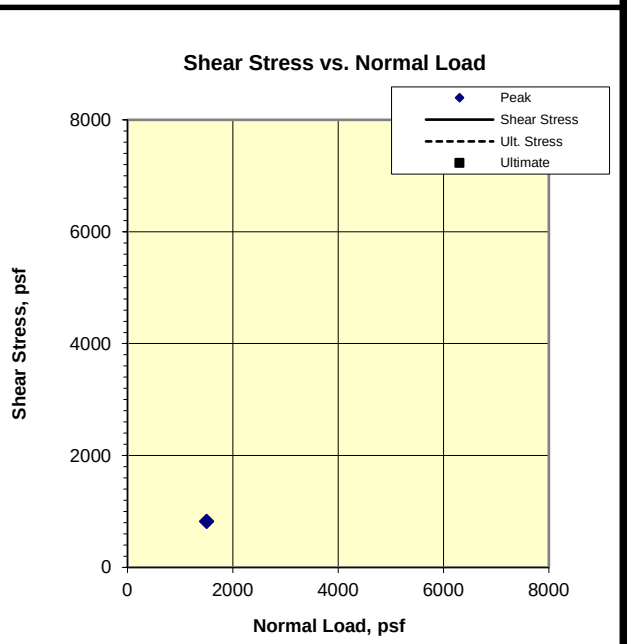
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/25/2018	Checked:	PJ
Project Name:	Brideway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-3			
Sample:	1			
Depth (ft):	1.5			
Visual Description:	Dark Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	1500			
Dry Mass of Specimen (g)	118.9			
Initial Height (in)	1.00			
Initial Diameter (in)	2.40			
Initial Void Ratio	0.684			
Initial Moisture (%)	14.4			
Initial Wet Density (pcf)	114.5			
Initial Dry Density (pcf)	100.1			
Initial Saturation (%)	56.8			
ΔHeight Consol (in)	0.0227			
At Test Void Ratio	0.646			
At Test Moisture (%)	22.4			
At Test Wet Density (pcf)	125.4			
At Test Dry Density (pcf)	102.4			
At Test Saturation (%)	93.7			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	824			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







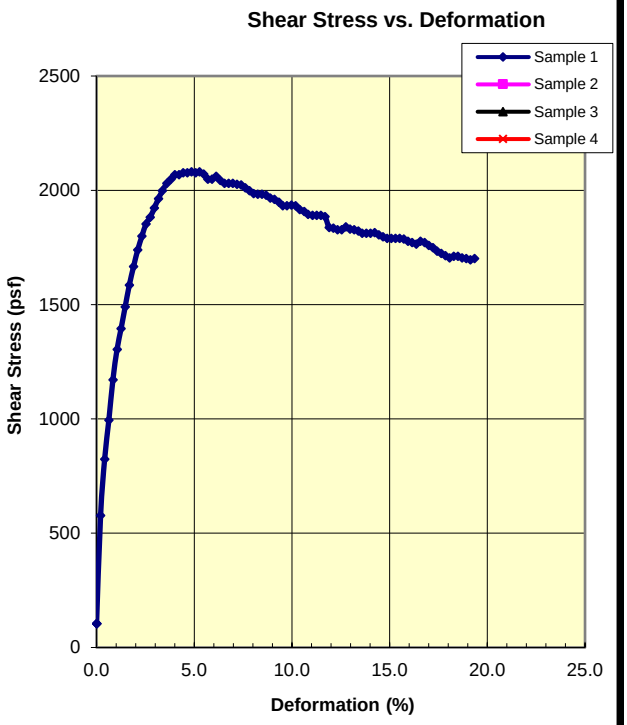
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

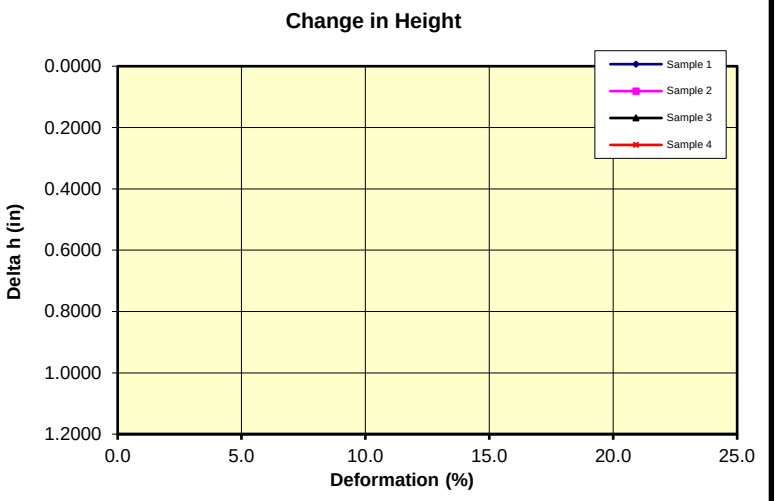
Consolidated Undrained Direct Shear (ASTM D3080M)

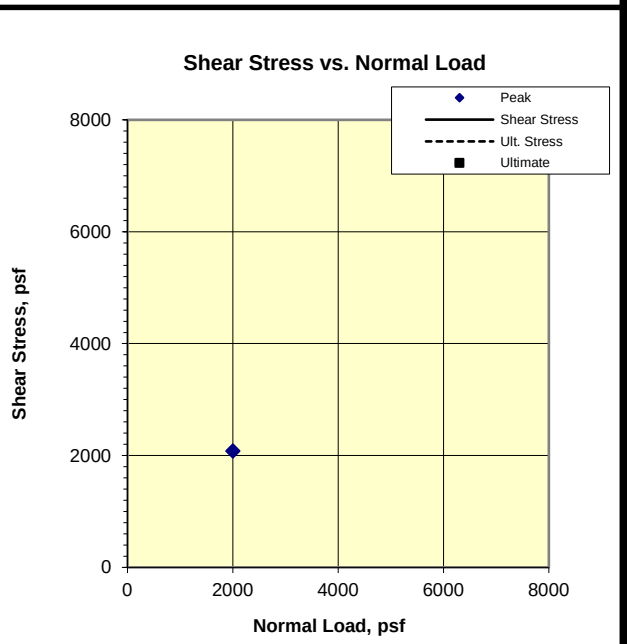
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/25/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-3			
Sample:	2			
Depth (ft):	4			
Visual Description:	Dark Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	2000			
Dry Mass of Specimen (g)	132.6			
Initial Height (in)	1.00			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.527			
Initial Moisture (%)	18.7			
Initial Wet Density (pcf)	131.0			
Initial Dry Density (pcf)	110.4			
Initial Saturation (%)	95.9			
ΔHeight Consol (in)	0.0115			
At Test Void Ratio	0.509			
At Test Moisture (%)	18.8			
At Test Wet Density (pcf)	132.7			
At Test Dry Density (pcf)	111.7			
At Test Saturation (%)	99.8			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	2080			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







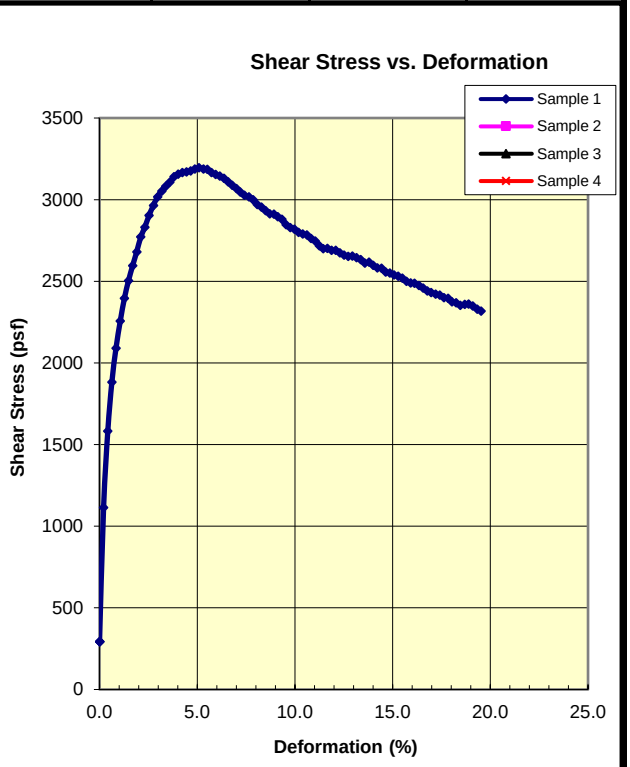
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

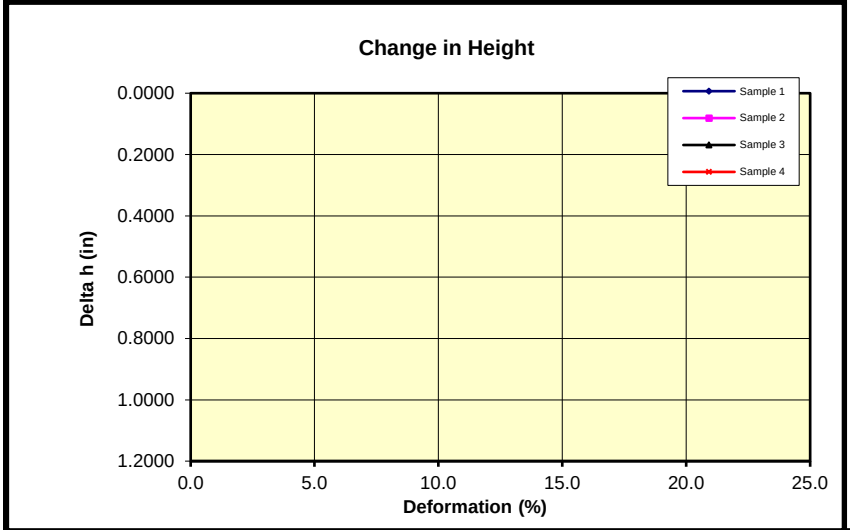
Consolidated Undrained Direct Shear (ASTM D3080M)

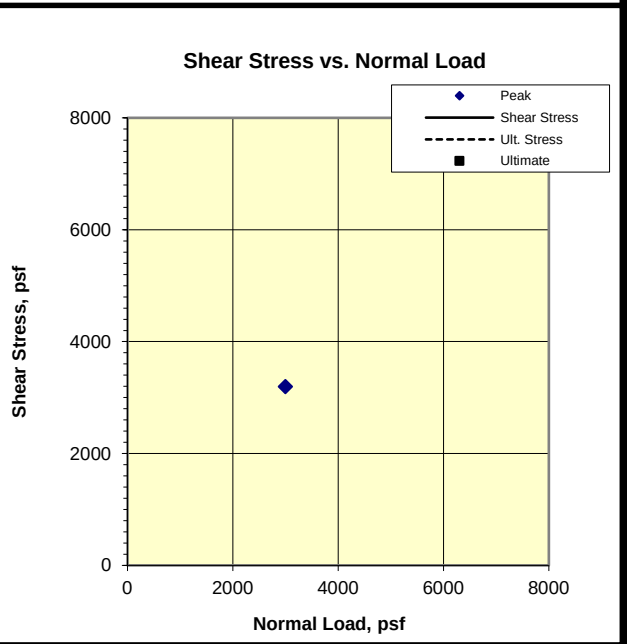
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/25/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-3			
Sample:	3			
Depth (ft):	9			
Visual Description:	Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	3000			
Dry Mass of Specimen (g)	130.7			
Initial Height (in)	1.01			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.589			
Initial Moisture (%)	20.5			
Initial Wet Density (pcf)	130.2			
Initial Dry Density (pcf)	108.0			
Initial Saturation (%)	95.6			
ΔHeight Consol (in)	0.0126			
At Test Void Ratio	0.569			
At Test Moisture (%)	20.6			
At Test Wet Density (pcf)	131.9			
At Test Dry Density (pcf)	109.4			
At Test Saturation (%)	99.5			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	3195			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







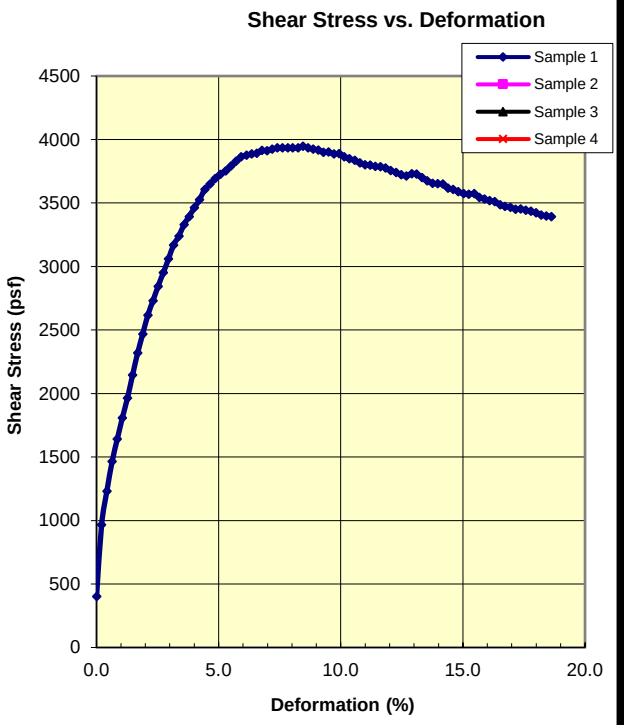
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

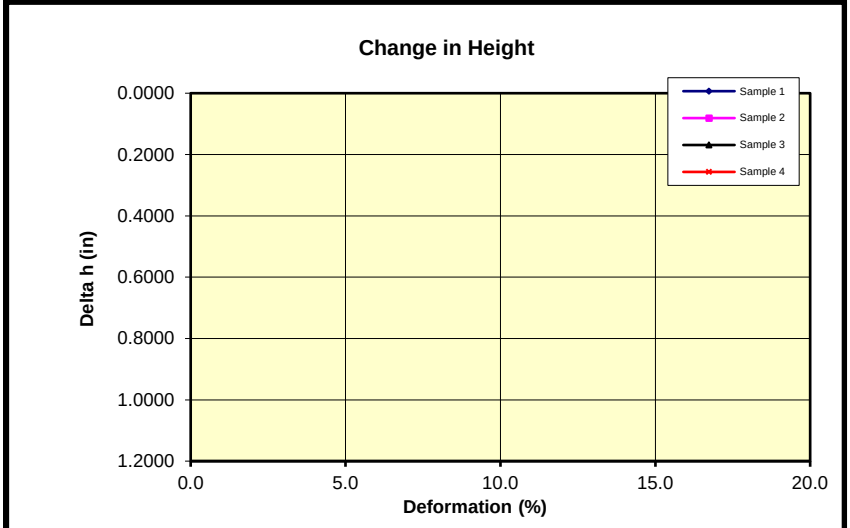
Consolidated Undrained Direct Shear (ASTM D3080M)

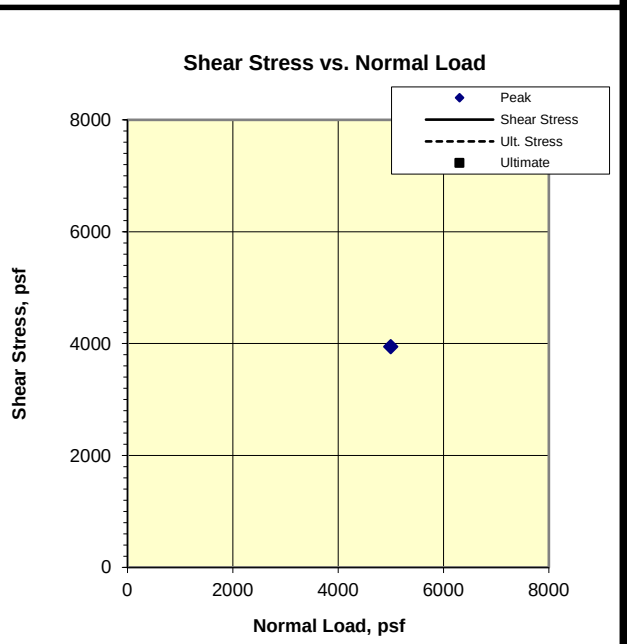
CTL Job #:	218-097	Project #:	302110-001	By:	MD
Client:	Earth Systems Pacific	Date:	6/25/2018	Checked:	PJ
Project Name:	Bridgeway Commons	Remolding Info:			

Specimen Data	1	2	3	4
Boring:	B-3			
Sample:	5A			
Depth (ft):	18.5			
Visual Description:	Yellowish Brown CLAY w/ Sand			
Normal Load (psf)	5000			
Dry Mass of Specimen (g)	142.6			
Initial Height (in)	1.01			
Initial Diameter (in)	2.41			
Initial Void Ratio	0.423			
Initial Moisture (%)	9.2			
Initial Wet Density (pcf)	129.4			
Initial Dry Density (pcf)	118.5			
Initial Saturation (%)	58.8			
ΔHeight Consol (in)	0.0372			
At Test Void Ratio	0.370			
At Test Moisture (%)	13.6			
At Test Wet Density (pcf)	139.8			
At Test Dry Density (pcf)	123.0			
At Test Saturation (%)	99.3			
Strain Rate (%/min)	1.0			
Strengths Picked at	Peak			
Shear Stress (psf)	3946			
ΔHeight (in) at Peak				
Ultimate Stress (psf)				

Phi (deg)		Ult. Phi (deg)	
Cohesion (psf)		Ult. Cohesion (psf)	







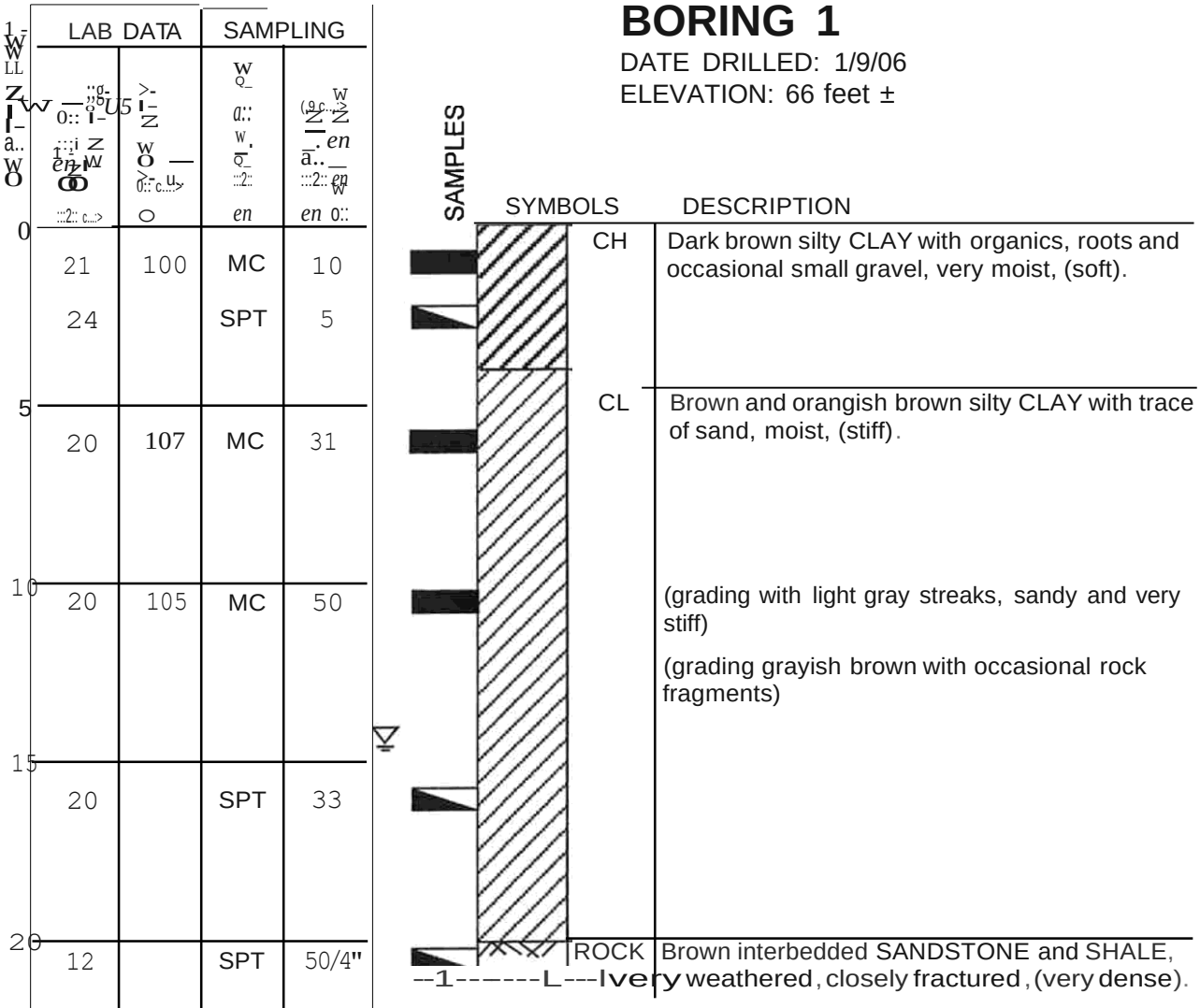
Remarks: *DS-CU* A fully undrained condition may not be attained in this test. ΔH is not measured during undrained direct shear tests.

APPENDIX C

Boring Log, 2014 Investigation
Boring Logs, 2006 Investigation

BORING 1

DATE DRILLED: 1/9/06
ELEVATION: 66 feet ±



Groundwater was encountered at about 14-1/2 feet during the drilling operations.

NOTES:

1. Boring drilled with a portable Minuteman drill rig and terminated at a depth of 21 feet.
2. Sampling resistance is measured in blows per foot required to drive the sampler 12 inches with a 140 lb. Hammer falling 30 inches after sampler has been seated 6 inches.
3. Boring log indicates the interpreted subsurface conditions only at the location and the time the boring was drilled.
4. For an explanation of terms used, see the Soil Classification Chart and Key to Test Data, Plate 3, and Description of Rock Properties, Plate 4.

757 Bridgeway, Sausalito

LOG OF BORING

Trans Pacific Geotechnical Consultants, Inc.

BORING 2

DATE DRILLED: 1/9/06

ELEVATION: 51 feet ±

LAB DATA		SAMPLING		SAMPLES	SYMBOLS	DESCRIPTION
					CH	Dark brown with orange silty CLAY with organics, and occasional rock fragments, very moist, (soft).
20	100	MC	8			
19		SPT	5			
					CL	Orangish yellowish brown silty CLAY with sand and small rock fragments, moist, (stiff).
17	115	MC	28			
						(grading with gray streaks, rock fragments and very stiff)
20	106	MC	37			
						(grading stiff)
26		SPT	16			
24		SPT	16			

Groundwater was encountered at about 3 feet after the drilling operations.

NOTES:

1. Boring drilled with a portable Minuteman drill rig and terminated at a depth of 21 feet.

   to drive the sampler 12 inches with a 140 lb. Hammer falling 30 inches after sampler has been seated 6 inches.
3. Boring log indicates the interpreted subsurface conditions only at the location and the time the boring was drilled.
4. For an explanation of terms used, see the Soil Classification Chart and Key to Test Data, Plate 3, and Description of Rock Properties, Plate 4.

757 Bridgeway, Sausalito, California

LOG OF BORING

Trans Pacific Geotechnical Consultants, Inc.

BORING 3

DATE DRILLED: 1/9/06

ELEVATION: 44 feet ±

LAB DATA		SAMPLING				
					SYMBOLS	DESCRIPTION
28	103	MC	7	1/10/06	CH	Dark grayish brown silty CLAY with organics, roots and rock fragments, very moist, (soft).
20		SPT	6		CL	Brown silty CLAY with small rock fragments, moist, (medium stiff).
22	101	MC	34			(grading orangish and yellowish brown with light gray streaks, small rock fragments and stiff)
15		SPT	34			(grading with more rock fragments)
19		SPT	17			(grading with sand and stiff)
20		SPT	47			(grading with more gravel and stiff)

Groundwater was encountered at 3 feet during the drilling operations, and at the ground surface afterwards.

NOTES:

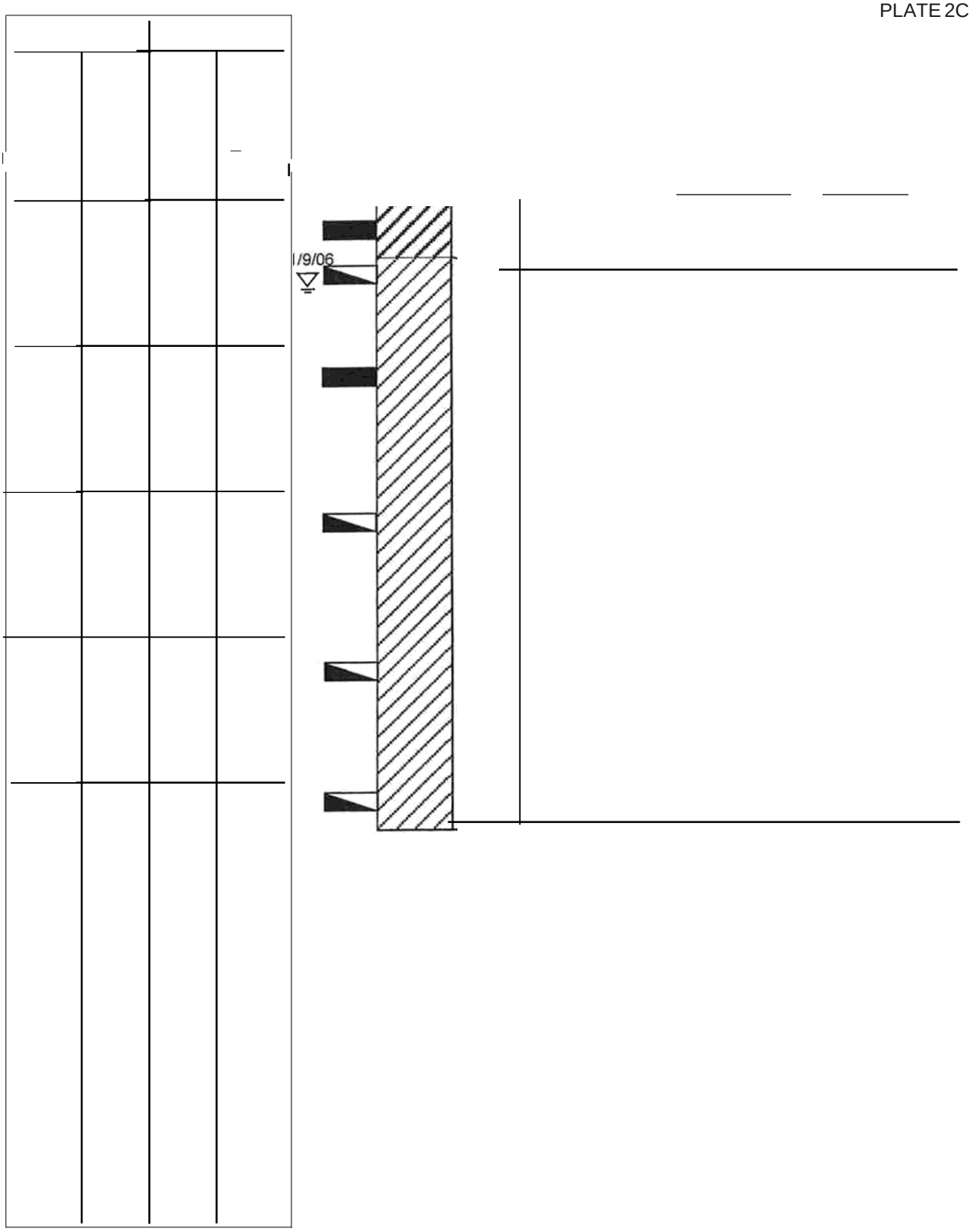
1. Boring drilled with a portable Minuteman drill rig and terminated at a depth of 21-1/2 feet.

to drive the sampler 12 inches with a 140 lb. Hammer falling 30 inches after sampler has been seated 6 inches.

3. Boring log indicates the interpreted subsurface conditions only at the location and the time the boring was drilled.
4. For an explanation of terms used, see the Soil Classification Chart and Key to Test Data, Plate 3, and Description of Rock Properties, Plate 4.

LOG OF BORING

PLATE 2C



757 Bridgeway, Sausalito, California

BORING 4

DATE DRILLED: 1/10/06
ELEVATION: 33 feet ±

LAB DATA		SAMPLING		SAMPLES	SYMBOLS	DESCRIPTION
					CH	Dark grayish brown silty CLAY with organics, roots and small rock fragments, very moist, (soft).
22	96	MC	6			
25		SPT	6			
					CL	Yellowish brown sandy silty CLAY with occasional small rock fragments, very moist, (medium stiff to stiff).
21	104	MC	11			
21		SPT	15			(grading stiff and brown with rust spots)
18		SPT	27			
17		SPT	23			(grading mottled yellowish brown and bluish gray, ve sti

Groundwater was encountered at about 5 feet during the drilling operations.

NOTES:

1. Boring drilled with a portable Minuteman drill rig and terminated at a depth of 21-1/2 feet.

to drive the sampler 12 inches with a 140 lb. Hammer falling 30 inches after sampler has been seated 6 inches.

3. Boring log indicates the interpreted subsurface conditions only at the location and the time the boring was drilled.
4. For an explanation of terms used, see the Soil Classification Chart and Key to Test Data, Plate 3, and Description of Rock Properties, Plate 4.

757 Bridgeway, Sausalito, California

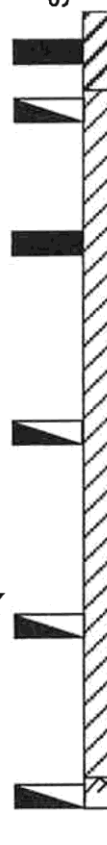
LOG OF BORING

Trans Pacific Geotechnical Consultants, Inc.

BORING 5

DATE DRILLED: 1/10/06
ELEVATION: 37 feet ±

	LAB DATA		SAMPLING	
0	23	91	MC	6
	18		SPT	6
5	23	105	MC	39
10	22		SPT	31
15	28		SPT	33
20	8		SPT	50/3"
25				
30				
35				



SYMBOLS	DESCRIPTION
CH	Dark brown silty CLAY with organics and roots, very moist, (soft).
CL	Yellowish brown silty CLAY with sand and small rock fragments, moist, (soft).
	(grading with gray streaks and stiff)
	(grading orangish brown and gray mottled, very stiff)
ROCK	Olive gray SHALE, very weathered, closely fractured, (hard).

Groundwater was encountered at about 15-1/2 feet during the drilling operations.

NOTES:

1. Boring drilled with a portable Minuteman drill rig and terminated at a depth of 20-3/4 feet.

   to drive the sampler 12 inches with a 140 lb. Hammer falling 30 inches after sampler has been seated 6 inches.
3. Boring log indicates the interpreted subsurface conditions only at the location and the time the boring was drilled.
4. For an explanation of terms used, see the Soil Classification Chart and Key to Test Data, Plate 3, and Description of Rock Properties, Plate 4.

757 Bridgeway, Sausalito, California

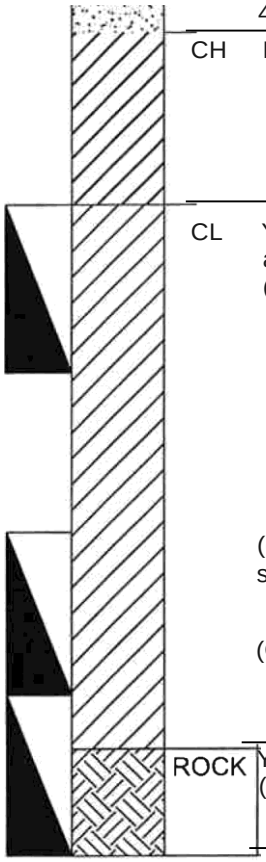
LOG OF BORING

Trans Pacific Geotechnical Consultants, Inc.

BORING 6

DATE DRILLED: 11/18/14

	LAB DATA		SAMPLING	
0				
	14		SPT	39
4	17 16		SPT	91
	16 16		SPT	109
8				
10				



SYMBOLS	DESCRIPTION
	4" Concrete slab
CH	Dark brown silty CLAY with roots, (top soil) (stiff)
CL	Yellowish brown, silty CLAY with sand and occasionah. rock fragments (stiff to very stiff)
	(grading with light gray streaks, sandy and very stiff)
	(Grading orange brown and rust spot)
ROCK	Yellowish brown SANDSTONE (very weathered), (very dense)

No groundwater was encountered during the drilling operations.

NOTES:

1. Boring drilled with a portable Minuteman drill rig and terminated at a depth of 8 feet.
2. Sampling resistance is measured in blows per foot required to drive the sampler 12 inches wiith a 140 lb. Hammer falling 18 inches after sampler has been seated 6 inches.
3. Boring log indicates the interpreted subsurface conditions only at the location and the time the boring was drillled.
4. For an explanation of terms used, see the Soil Classification Chart and Key to Test Date, Plate 3. and Description of Rock Properties, Plate 4.

14-942-02 Jardine's Lockout 1745 & 1757 Bridgeway, Sausalito, California

LOG OF BORING

Axiom Corporation

Appendix F

Noise Modeling Details

Construction - Leq

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
FTA Daytime Residential Threshold	31	90.0
Distance from center of construction	60	84.2

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	0.4
Grader	85	0.4
Excavator	85	0.4

Ground Type	hard
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Dozer	81.0
Grader	81.0
Excavator	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
85.8

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Construction (Lmax)

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Daytime Residential Threshold	49	90.0
Distance from center of construction	60	88.2

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Dozer	85	1
Grader	85	1
excavator	85	1

Ground Type	hard
Source Height	8
Receiver Height	5
Ground Factor[2]	0.00

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Dozer	85.0
Grader	85.0
excavator	85.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
89.8

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}(equip) = E.L.+10*\log(U.F.) - 20*\log(D/50) - 10*G*\log(D/50)$

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Backhoe	40	80	78	372	74.0	70.0	100	72.0	68.0
Bar Bender	20	80	na	0	74.0	67.0	100		
Blasting	na	94	na	0	88.0		100		
Boring Jack Power Unit	50	80	83	1	74.0	71.0	100	77.0	74.0
Chain Saw	20	85	84	46	79.0	72.0	100	78.0	71.0
Clam Shovel (dropping)	20	93	87	4	87.0	80.0	100	81.0	74.0
Compactor (ground)	20	80	83	57	74.0	67.0	100	77.0	70.0
Compressor (air)	40	80	78	18	74.0	70.0	100	72.0	68.0
Concrete Batch Plant	15	83	na	0	77.0	68.7	100		
Concrete Mixer Truck	40	85	79	40	79.0	75.0	100	73.0	69.0
Concrete Pump Truck	20	82	81	30	76.0	69.0	100	75.0	68.0
Concrete Saw	20	90	90	55	84.0	77.0	100	84.0	77.0
Crane	16	85	81	405	79.0	71.0	100	75.0	67.0
Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Drum Mixer	50	80	80	1	74.0	71.0	100	74.0	71.0
Dump Truck	40	84	76	31	78.0	74.0	100	70.0	66.0
Excavator	40	85	81	170	79.0	75.0	100	75.0	71.0
Flat Bed Truck	40	84	74	4	78.0	74.0	100	68.0	64.0
Front End Loader	40	80	79	96	74.0	70.0	100	73.0	69.0
Generator	50	82	81	19	76.0	73.0	100	75.0	72.0
Generator (<25KVA, VMS si	50	70	73	74	64.0	61.0	100	67.0	64.0
Gradall	40	85	83	70	79.0	75.0	100	77.0	73.0
Grader	40	85	na	0	79.0	75.0	100		
Grapple (on Backhoe)	40	85	87	1	79.0	75.0	100	81.0	77.0
Horizontal Boring Hydr. Jac	25	80	82	6	74.0	68.0	100	76.0	70.0
Hydra Break Ram	10	90	na	0	84.0	74.0	100		
Impact Pile Driver	20	95	101	11	89.0	82.0	100	95.0	88.0
Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Mounted Impact Hammer (	20	90	90	212	84.0	77.0	100	84.0	77.0
Pavement Scarafier	20	85	90	2	79.0	72.0	100	84.0	77.0
Paver	50	85	77	9	79.0	76.0	100	71.0	68.0
Pickup Truck	40	55	75	1	49.0	45.0	100	69.0	65.0
Pneumatic Tools	50	85	85	90	79.0	76.0	100	79.0	76.0
Pumps	50	77	81	17	71.0	68.0	100	75.0	72.0
Refrigerator Unit	100	82	73	3	76.0	76.0	100	67.0	67.0
Rivit Buster/chipping gun	20	85	79	19	79.0	72.0	100	73.0	66.0
Rock Drill	20	85	81	3	79.0	72.0	100	75.0	68.0
Roller	20	85	80	16	79.0	72.0	100	74.0	67.0
Sand Blasting (Single Nozzle	20	85	96	9	79.0	72.0	100	90.0	83.0
Scraper	40	85	84	12	79.0	75.0	100	78.0	74.0
Shears (on backhoe)	40	85	96	5	79.0	75.0	100	90.0	86.0
Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Soil Mix Drill Rig	50	80	na	0	74.0	71.0	100		
Tractor	40	84	na	0	78.0	74.0	100		
Tugboat	40	87	74	4	81.0	77.0	100	68.0	64.0
Vacuum Excavator (Vac-tru	40	85	85	149	79.0	75.0	100	79.0	75.0
Vacuum Street Sweeper	10	80	82	19	74.0	64.0	100	76.0	66.0
Ventilation Fan	100	85	79	13	79.0	79.0	100	73.0	73.0
Vibrating Hopper	50	85	87	1	79.0	76.0	100	81.0	78.0
Vibratory Concrete Mixer	20	80	80	1	74.0	67.0	100	74.0	67.0
Vibratory Pile Driver	20	95	101	44	89.0	82.0	100	95.0	88.0
Warning Horn	5	85	83	12	79.0	66.0	100	77.0	64.0
Workboat	40	72	74	4	66.0	62.0	100	68.0	64.0
Welder / Torch	40	73	74	5	67.0	63.0	100	68.0	64.0

Source:
FHWA Roadway Construction Noise Model, January 2006. Table 9.1
U.S. Department of Transportation
CA/T Construction Spec. 721.560

Distance Propagation Calculations for Stationary Sources of Ground Vibration

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

— If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.

— If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Vibratory Roller	94.0	@	25	80.0	@	73
Large Bulldozer	87.0	@	25	79.9	@	43
Vibratory Roller	94.0	@	25	105.9	@	10
Large Bulldozer	87.0	@	25	98.9	@	10

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Vibratory Roller	0.20	@	25	0.189	@	26
Large Bulldozer	0.089	@	25	0.191	@	15

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Appendix G

Circulation Study

Parametrix
let's create tomorrow, together

Technical Memorandum

DATE: March 29, 2024
TO: Kristin Teiche, Principal Planner
FROM: David Parisi, Jimmy Jessup, Parametrix
SUBJECT: Circulation Study for Bridgeway Commons Project
PROJECT NUMBER: 474-8948-005

Executive Summary

Parametrix performed a Circulation Study in 2018 to assess potential transportation-related impacts of the Bridgeway Commons project ("Project") at 1755 Bridgeway, Sausalito[1].The Project had 16 residential units within two multi-level buildings with enclosed parking on the ground level. Vehicular access to the property is via a 24-foot- wide driveway along Bridgeway that would provide right-turn ingress and right-turn egress.

This technical memorandum provides an update of this previous study to reflect the most recent Project application submittal, dated May 4, 2022, and to address updated California Environmental Quality Act (CEQA) requirements to evaluate vehicle miles traveled (VMT) as a metric to determine potential impacts.

The Project currently proposes development of 19 condominiums (three one-bedroom, 11 two-bedroom, and five three-bedroom residential units). Vehicular access to the property is unchanged from the prior Project description. The Project also would provide 24 long-term, secure bicycle parking spaces inside one of the buildings.

This memorandum concludes that the Project would have a less-than-significant impact on level-of-service (LOS) at nearby study intersections and a less-than-significant impact on VMT.

Existing Conditions

The Project encompasses Lot 02 and 03 of Assessor's Parcel 064-051, and covers approximately one-quarter of the block bounded by Bridgeway to the northeast, Filbert Avenue to the southwest, Easterby Street to the northwest and Napa Street to the southwest (Figure 1). The property currently consists of four residential structures (1745 Bridgeway, 1751 Bridgeway, 1757 Bridgeway, and 160 Filbert Avenue) that have been vacant for several years.

Vehicular access to the Project site is provided via Bridgeway, a major arterial street in Sausalito that is located along or near to the waterfront. It generally runs in the north-south direction from Downtown Sausalito to the northern City Limit where it connects to Highway 101. At the Project site, Bridgeway has two travel lanes in each direction with left-turn pockets provided at major intersections. The roadway also provides a sidewalk in both directions and an on-street bike lane (Class 2 bikeway). On-street parking is provided along the western edge of Bridgeway, but not along the eastern side.

[1] Parisi Transportation Consulting, Bridgeway Commons Circulation Study. August 2018.

Regional access to the Project site is provided via Highway 101, an eight-lane freeway located along the western edge of the City. Highway 101 is a north-south highway that connects Sausalito to the City and County of San Francisco to the south, and the rest of County of Marin to the north.

The Project site is served by both local and regional public transit operators. Local transit to and from the Project site is provided by the Marin Transit District, while regional transit service is provided by Golden Gate Transit. There are bus stops at the northwest and southeast corners of the Bridgeway / Easterby Street / Marinship Way intersection.

Additionally, the Sausalito Ferry Terminal is located less than one mile away from the Project site. Ferry service connects from the terminal to the City and County of San Francisco.

Project Vehicle Trip Generation

The Project site has been vacant for several years and does not currently generate any vehicle trips. All future trips to and from the site would be new as a result of the Project.

Vehicle trip generation estimates were based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*[2], which provides surveyed data on a variety of land uses collected throughout the United States. The manual contains data on the vehicle trip generation of the surveyed sites based on the number of dwelling units. The ITE Land Use 220, Multifamily Housing, (Low-Rise), within the manual was applied to the proposed residential uses as it most closely matches the description of the Project.

Table 1 summarizes the Project's estimated trip generation based on ITE Trip generation rates. As shown, the Project would generate an estimated 128 weekday vehicle-trips, eight vehicle-trips during the weekday AM peak hour, and 10 vehicle-trips during the weekday PM peak hour.

Table 1: Project Trip Generation Rates

ITE Land Use	Units	Trip Generation			
			Daily	AM Peak	PM Peak
Multifamily Housing (Low-Rise) (Land Use 230)	19 DU	Rate[1]	6.74 trips / DU	0.40 trips / DU	0.51 trips / DU
		Trips	**128**	**8**	**10**

Source: ITE *Trip Generation* (11th ed., 2021); Parametrix, 2024.
Note: DU = Dwelling Units.
[1] Average Rate.

The results in Table 1 reflect slightly fewer trips generated (128 daily vehicle trips) compared to the 2018 Circulation Study results (131 daily vehicle trips). This is the result of a lower trip generation rate for the ITE Land Use 230, which is based on updated input data from studies conducted across the nation and submitted to the ITE.

It is expected that a portion of residents and visitors of the Project would travel to and from the site by transit, walking, bicycling, and other non-motorized modes of transportation. This would be due to the provision of 24 long-term indoor bicycle parking spaces and the proximity to Downtown Sausalito, as well as bus and ferry transit. However, ITE's trip generation rates do not factor trip reductions due

[2] Institute of Transportation Engineers, Trip Generation Manual, 11th Edition. 2021.

to pedestrian- or bicycle-oriented travel. This study does not apply a discount to the vehicle-trip generation to account for such trips. The vehicle trip generation results displayed in this study should be considered conservative, as the proposed uses may actually generate lower vehicle trips due to the number of non-drive trips made by visitors to the site.

Traffic Impact Assessment

Potential impacts at Bridgeway's intersections with Easterby Street / Marinship Way and with Napa Street were evaluated based on existing travel patterns as described in the previous 2018 Circulation Study. In agreement with the City, vehicular traffic counts conducted at both intersections in May 2016 were determined to be appropriate for this study. The Project-generated trips were added to the traffic counts to estimate vehicle operations under an Existing plus Project condition.

Table 2 provides a summary of the LOS analysis for the study intersections. As the trip generation figures are very similar to the 2018 Circulation Study, the resulting LOS figures are also largely unchanged from the prior study. As shown, both intersections operate at or better than LOS C. This represents conditions with limited congestion along the corridor, and vehicles experiencing limited delays while travelling through the intersections. The addition of Project-generated traffic to the intersections would result in minimal increases (less than one second) in vehicle delay at both intersections during both the weekday AM and PM peak periods.

In the City of Sausalito General Plan[3], Policy CP-1.6 describes the City's LOS standard to maintain a letter grade LOS of D or better for signalized intersections during the PM weekday peak hour. As displayed in Table 2, both intersections would continue to operate at or above the desired level of service.

Table 2: Intersection Level of Service – Existing plus Project Conditions

Intersection	Control	Existing Conditions				Existing plus Project Conditions			
		AM Peak		PM Peak		AM Peak		PM Peak	
		LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]	LOS	Delay[1]
1 Bridgeway / Easterby St. / Marinship Way	Signal	B	13.2	B	11.3	B	13.2	B	11.6
2 Bridgeway / Napa Street	Two-Way Stop	C	15.2	C	21.6	C	15.3	C	21.7

Source: Parametrix, 2024.
Note: LOS = Level of Service
[1] Delay in seconds per vehicle.

[3] City of Sausalito, General Plan. Adopted February, 2021.

Vehicle Miles Traveled

Senate Bill 743, signed into law in 2013, mandated a change in CEQA guidelines to utilize VMT, as opposed to vehicle flow or traffic congestion, as a more appropriate metric for assessing impacts associated with projects, in line with goals of helping to achieve climate commitments, improving health and safety, and prioritizing co-located land uses. VMT is calculated based on the sum of individual vehicle trips generated and their associated trip lengths. The use of VMT as a performance measure allows for the evaluation of fuel consumption by motor vehicles for distances traveled and impacts associated with greenhouse gas (GHG) emissions.

The State of California gives the lead agency discretion in selecting an appropriate methodology and significance threshold for VMT impacts. In December 2018, OPR published its Technical Advisory on Evaluating Transportation Impacts in CEQA ("Technical Advisory"). These guidelines direct lead agencies on how to evaluate project transportation impacts on the basis of VMT, as required by Senate Bill 743. The Transportation Authority of Marin (TAM) has made available a memo that includes suggestions for VMT thresholds of significance to be incorporated into its travel demand forecasting model for use by local lead agencies.

In its 2021 General Plan, the City of Sausalito describes the approach to utilizing VMT as a metric for assessing potential transportation impacts and identifies the TAM demand model (TAMDM) as the source of determining VMT generated by proposed land use projects. The threshold of significance applied to the Project, consistent with the OPR Technical Advisory, applied in this assessment is as follows:

- For residential projects, a proposed project that exceeds a project generated level of 15 percent below existing County average home-based VMT per resident may indicate a significant transportation impact.

The TAMDM lists average Marin County home-based VMT per resident as 15.8 for year 2015, and 15.0 for year 2040. The threshold of significance, 15 percent below the County average, is therefore 13.4 for year 2015 and 12.8 for year 2040.

VMT that would be generated by the Project was analyzed in accordance with geographic and circulation characteristics of the Project description and location. In the TAMDM, the Project is located in Transportation Analysis Zone (TAZ) 800.047, which exhibits an average home-based VMT per resident of 15.0 in year 2015 and 16.8 in year 2040.

Published material from the California Air Pollution Control Officers Association (CAPCOA)[4] includes guidance for determining the estimated VMT reduction impact of various land use and vehicle trip reduction transportation measures. Measure T-1 describes the influence on VMT of a residential project reflecting higher residential dwelling unit density compared to an average surrounding dwelling unit density. Research that underpins this transportation measure demonstrates that an increase in residential density reduces both the number of vehicle trips and the length of vehicle trips generated by those dwelling units, therefore reducing overall VMT per resident.

This analysis calculates VMT reduction from the TAMDM VMT figures for TAZ 800.047 due to increased residential density to determine estimated VMT that would be generated by Project residents. The Project plans propose residential density of 27 dwelling units per acre, compared to an existing average residential density of eight dwelling units per acre in TAZ 800.047. Table 3

[4] California Air Pollution Control Officers Association, Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. August 2021.

displays projected VMT generated by the Project compared to the threshold of significance for years 2015 and 2040.

As the home-based VMT per resident of the Project is below the threshold of significance for both 2015 and 2040, the Project would have a less-than-significant VMT impact.

Table 3: Project-Generated Home-Based VMT per Resident Compared with Threshold of Significance

Project Location	Year	Home-Based VMT per Resident		
		County Average	Threshold of Significance	Project-Generated
1755 Bridgeway, Sausalito, California	2015	15.8	13.4	10.5
	2040	15.0	12.8	11.8

Source: TAM, 2021; Parametrix, 2024

In addition to increased Project dwelling unit density leading to reduced VMT per resident, there are other reasons to determine that the Project would generate lower VMT per resident compared to existing residential units located throughout TAZ 800.047. The Project site is located along Bridgeway within a half mile of transit stops, the public library, downtown Sausalito with various retail and service destinations, and the City's prominent bayside open space, Dunphy Park. The remainder of the TAZ is located primarily amongst hilly topography with access provided by indirect, undulating roadways that lack pedestrian or bicycle infrastructure. In contrast, the Project site fronts formal City sidewalks and bike lanes along gentler topography, and the Project includes provision of 24 long-term, secure bicycle parking spaces; these combined factors would facilitate Project trips to be made by walking, bicycling, and public transit compared to surrounding TAZ residences.

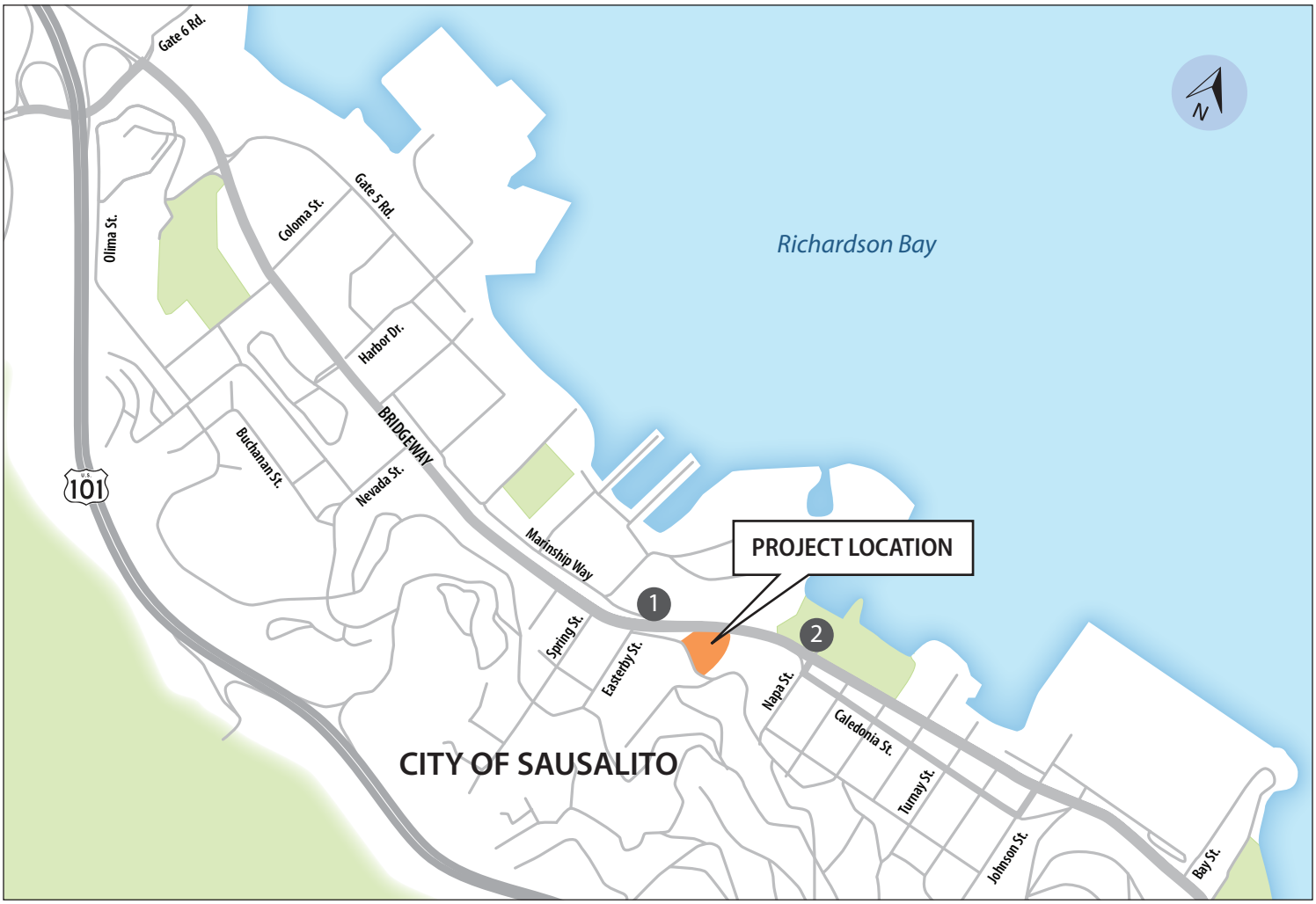


Figure 1: Project Location
Bridgeway Commons (1755 Bridgeway)