PLANNING COMMISSION AGENDA REPORT

Meeting Date: April 25, 2024

From: Jeremiah Robbins, Associate Planner

Subject: 3708 Bayshore Boulevard; Grading Review 2024-EX-4, Use Permit 2024-UP-3 Lot Merger 2024-LLA-2, Habitat Conservation Plan Compliance 2024-HCP-1; SCRO-1 Zoning District; Expansion of the current contractor's storage yard permitted under UP-9-12; and finding that this project is categorically exempt from environmental review under CEQA Guidelines Sections 15301 and 15311; Sean Brennan, applicant; MK Yard LLC, owner.

REQUEST: The applicant requests approval of the above-referenced permits to allow an approximately 5,000 square foot expansion of the current contractor's storage yard permitted under UP-9-12. The project includes a combined 823 cubic yards of soil cut and fill and a merger of three underlying parcels located within the Brisbane Acres Administrative Parcel of the San Bruno Mountain Habitat Conservation Plan area.

RECOMMENDATION: Approve Grading Review 2024-EX-4, Use Permit 2024-UP-3 Lot Merger 2024-LLA-2, Habitat Conservation Plan Compliance 2024-HCP-1 via adoption of Resolution 2024-EX-4/2024-UP-3/2024-LLA-2/2024-HCP-1 containing the findings and conditions of approval.

ENVIRONMENTAL DETERMINATION: The project is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) per Sections 15301 and 15311 - this project falls within a class of projects which the State has determined not to have a significant effect on the environment. The exceptions to the categorical exemptions referenced in Section 15300.2 of the CEQA Guidelines do not apply, as confirmed by the biological resources assessment attached to this agenda report.

APPLICABLE CODE SECTIONS: Brisbane Municipal Code (BMC) Chapter 17.16, SCRO-1 Southwest Bayshore Commercial District; Chapter 17.40, Use Permits; §17.32.220, Grading Permit- When Required; §16.12.070, Merger of parcels initiated by the property owner. The San Bruno Mountain Area Habitat Conservation Plan (HCP) governs development of properties within the Southwest Bayshore subarea (part of Administrative Parcel 2-03 of the HCP). The Operating Program for Administrative Parcel 2-03 establishes the general obligations applicable to properties and property owners in regards to HCP compliance.

BACKGROUND

This project is a refile of Use Permit 2022-UP-7, Grading Review 2022-EX-5, Lot Merger 2022-LLA-3, Habitat Conservation Plan Compliance 2022-HCP-1, considered by the Planning Commission on August 24, 2023 (see Attachment E) and continued off-calendar by a motion, by Commissioner Sayasane, seconded by Commissioner Gooding, approved 3-0. Due to State permit streamlining requirements, and to allow the applicant sufficient time to update the Geotechnical Investigation

report to include a geologic hazards evaluation and obtain a peer review of their updated Geotechnical Investigation Report, the applications were formally withdrawn. Cotton Shires Associates performed the peer review of the applicant's updated Geotechnical Report and Geologic Hazards Evaluation in December 2023 and the applicant refiled an application in March 2024.

ANALYSIS AND FINDINGS:

Existing Conditions and Site Context

Complete details of the existing conditions and site context are contained within staff's report from August 24, 2023 (Attachment E). Generally, the site is occupied by MK Pipelines and they have been operating a contractor's storage yard under a number of Use Permit since 2006. They currently employ 27 employees, including four based at the subject property, own approximately 35 pieces of construction equipment, and the hours of operation are between 7:00 am and 5:30 pm.

The project site is not immediately adjacent to any development and is comprised of three contiguous lots located within the SCRO-1 zoning district and the San Buno Mountain Habitat Conservation Plan (HCP) Area. The biological resources assessment (Attachment F) for the project site found no special status wildlife or plant species on the parcel or the surrounding 60-foot buffer that was included in the survey area. Based upon the habitat and condition of the survey area, the study concluded the project site has low potential to provide habitat for any special status species.

Project Description

Like their request in 2023, the applicant proposes to enlarge their existing, paved parking lot and storage yard by approximately 5,000 square feet for additional laydown and equipment storage space. No expansion of the existing structure is proposed. The expansion would occur north of their existing storage yard and involves a combined 823 cubic yards of soil cut and fill (3 cubic yards more than prior). New fencing will match the existing brown-slat chain link fence and no trees are proposed to be removed as part of this project. New retaining walls are proposed but would not exceed six feet in height. The proposed new walls would be soldier pile and lagging, rather than the previously proposed Allen-Block retaining wall in 2023. As part of the applicant's request, the three underlying parcels would be merged into a single parcel.

The revised project plans, along with a peer review of the Geotechnical Peer Review by Cotton Shires Associates (Attachment H), were transmitted to the Public Works Director/City Engineer, Building Division, and North County Fire Authority, and City Attorney who provided recommended conditions of approval. The biological assessment and draft operating program were transmitted to the HCP Plan Operator (San Mateo County Parks Dept.), US Fish and Wildlife

Service, and California Dept. of Fish and Wildlife, who concurred with the findings of the biological assessment.

Analysis

Analysis provided in 2023 (Attachment E), as summarized below, remains the same:

- Grading: The proposed grading is minimized to the footprint of the new paved storage area and would comply with the terms of the San Bruno Mountain Area Habitat Conservation Plan Agreement and Section 10(a) Permit, retaining walls would not exceed six feet in height, and no trees are to be removed.
- Use Permit: The project complies with the findings required under BMC Chapter 17.40 and BMC §17.16.060.
- Lot Merger: Contiguous parcels held by the same owner may be merged by recordation of a declaration of lot merger per BMC §16.12.070.
- HCP Compliance: As required by the General Plan and the HCP, a biological resources assessment of the site was conducted consistent with the methodology adopted by the Plan Operator (San Mateo County). No on-site habitat restoration is proposed for this site and consistent with the HCP's requirements for Administrative Parcel 2-03, Brisbane Acres, the draft Operating Program requires payment of a fee to fund habitat acquisition elsewhere in the HCP area (Condition of Approval B).

As noted above, the original application was continued off-calendar by the Planning Commission. Specific issues of concern to the Commission at that time were the amount of cut and fill proposed, the history of the site being moderately susceptible to seismically-induced landsliding, and the limitations of the applicant's geotechnical report in addressing these issues. To address these issues Cotton Shires Associates (CSA) was hired by the City to perform peer review of the applicant's Geotechnical Report and Geologic Hazards Evaluation (Attachment H).

CSA concluded that, "a suitably designed deep foundation retaining wall, such as a soldier pile and lagging retaining wall proposed by the applicant, will not be injurious or detrimental to property and improvements in the neighborhood or the general welfare of the City," and, "does not object to the concept of the proposed retaining wall and grading project with regards to the City of Brisbane's health, safety, comfort and general welfare of the persons residing or working in the neighborhood."

CSA did find the site surface and subsurface conditions have not been comprehensively investigated, and the landslide depth and depth to bedrock have also not been investigated. They recommend the applicant's Geotechnical and Engineering Geologic Consultant:

1. Perform geologic mapping to identify the limits of the identified landslide on a site-specific geologic map; and

2. Complete laboratory testing to calculate site specific active and passive pressures for the retaining wall design.

Both of CSA's recommendations should be performed at time of the building permit application and completed and reviewed by the City Engineer and CSA prior to issuance of the building permit, as stipulated in their peer review letter. When reviewing the application and CSA's peer review letter, the City Engineer concurred and requested submittal of an engineering geology report which addresses both recommendations made by CSA during review of the projects grading permit and prior to issuance of the building permit (Condition of Approval F).

Furthermore, in response to the Commissions concerns of fire safety at the site, North County Fire Authority (NCFA) conducts annual inspections as part of the City's vegetation management and weed abatement program prior to the start of the fire season. Typically performed in June or July, NCFA identifies properties that require the clearance of dangerous vegetation or debris, notifies the property owner of potential violations, and reinspects applicable properties to ensure compliance has been achieved. NCFA generally required a 30-foot buffer from structures, vehicles, and roadways if and when abatement is required, and confirmed the subject property was last evaluated in 2023 and was found to be in compliance with City requirements.

ATTACHMENTS

A. Draft Resolution 2024-EX-4/2024-UP-3/2024-LLA-2/2024-HCP-1
B. Aerial vicinity map
C. Applicant's plans
D. Assessor Parcel Map
E. 8/24/2023 Action Minutes and Planning Commission Agenda Report for 2022-UP-7/2022-EX-5/2022-LLA-3/2022-HCP-1 (hyperlink)
F. Biological Resources Assessment prepared by Coast Ridge Ecology
G. Geotechnical Report and Geologic Hazards Evaluation prepared by Divis Consulting, Inc.
H. Geotechnical Peer Review by Cotton Shires Associates
I. Draft Declaration of Lot Merger

Jeremiah Robbins, Associate Planner

John Swiecki, Community Development Director

Attachment A

draft
RESOLUTION 2024-EX-4/2024-UP-3/2024-LLA-2/2024-HCP-1

A RESOLUTION OF THE PLANNING COMMISSION OF BRISBANE CONDITIONALLY APPROVING GRADING REVIEW 2024-EX-4, USE PERMIT 2024-UP-3 LOT MERGER 2024-LLA-2, HABITAT CONSERVATION PLAN COMPLIANCE 2024-HCP-1 TO ALLOW AN APPROXIMATELY 5,000 SQUARE FOOT EXPANSION OF THE CURRENT CONTRACTOR'S STORAGE YARD PREVIOUSLY PERMITTED UNDER UP-9-12 AT 3708 BAYSHORE BOULEVARD

WHEREAS, Sean Brennan, the applicant, applied to the City of Brisbane for approval of a Use Permit, Grading Review, Lot Merger, and San Bruno Mountain Habitat Conservation Plan (HCP) Compliance for an expansion of a contractor's storage yard (previously permitted under UP-9-12, UP-6-11, UP-5-10, UP-5-8, UP-6-07, and UP-3-06) at 3708 Bayshore Boulevard; and

WHEREAS, on April 25, 2024, the Planning Commission conducted a public hearing on the application, publicly noticed in compliance with Brisbane Municipal Code Chapters 1.12 and 17.54, at which time any person interested in the matter was given an opportunity to be heard; and

WHEREAS, the Planning Commission reviewed and considered the staff memorandum relating to said applications, the applicant's plans and supporting materials, and the written and oral evidence presented to the Planning Commission in support of and in opposition to the application; and

WHEREAS, the Planning Commission finds that the proposed project is categorically exempt from the provisions of the California Environmental Quality Act; pursuant to Sections 15301 and 15311 of the State CEQA Guidelines; and

WHEREAS, the Planning Commission of the City of Brisbane hereby makes the findings attached herein as Exhibit A in connection with the application.

NOW THEREFORE, based upon the findings set forth hereinabove, the Planning Commission of the City of Brisbane, at its meeting of April 25, 2024, did resolve as follows:

Grading Review 2024-EX-4, Use Permit 2024-UP-3 Lot Merger 2024-LLA-2, Habitat Conservation Plan Compliance 2024-HCP-1 are approved per the findings and conditions of approval attached herein as Exhibit A.

The Operating Program for Management Unit 2-03-26 is hereby adopted, as attached herein as Exhibit B.

ADOPTED this 25th day of April, 2024, by the following vote:

AYES:
NOES:
ABSENT:

_____
ALEX LAU
Chairperson

ATTEST:

_____
JOHN A SWIECKI, Community Development Director

Draft
EXHIBIT A

Action Taken: Conditionally approve Grading Review 2024-EX-4, Use Permit 2024-UP-3 Lot Merger 2024-LLA-2, Habitat Conservation Plan Compliance 2024-HCP-1 per the staff memorandum with attachments, via adoption of Resolution 2024-EX-4/2024-UP-3/2024-LLA-2/2024-HCP-1.

Findings:

2024-EX-4

1. *The proposed grading is designed to reflect or fit comfortably with the site context and natural topography.*

As discussed in Finding 8 below, the proposed grading is minimized and designed to reflect or fit comfortably with the natural topography of the site.

2. *The proposed grading is designed to ensure that retaining walls visible to the public are designed to be as visually unobtrusive as possible*

As discussed in Finding 8 below, the proposed grading is designed to avoid large exposed retaining walls.

3. *The proposed grading is designed to minimize removal of: (i) existing street trees; (ii) any California Bay Laurel, Coast live Oak or California Buckeye trees; and (iii) three or more trees of any species on the same site having a circumference of at least thirty inches measured twenty-four inches above grade.*

The proposed grading will not require removal of existing street trees or California Bay Laurel, Coast Live Oak, or California Buckeye trees, or any other mature tree on the site.

2024-UP-3

4. *The planning commission shall consider and give due regard to the nature and condition of all adjacent uses and structures, and to general and specific plans for the area in question.*

The proposed commercial use of this property is consistent with the mixed commercial and residential character of the Subregional Commercial/Retail/Office (SCRO) land use designation in the Southwest Bayshore subarea and SCRO-1 District, a mixed-use district with a variety of existing commercial and residential uses. Adjacent development is approximately 470-610 feet away, which includes the mobile home park to the south and single-family residences to the west. Immediately adjacent parcels are undeveloped, but the parcel to the south is entitled for a 30-unit condominium complex. A landscaped yard would separate the two uses with 40 to 60 feet of separation and when approved, MK Pipelines Inc., was an existing commercial use. Furthermore, the proposed expansion would occur on the northern corner of the lot, away from existing and entitled residential uses.

Chapter 12 of the General Plan contains a number of policies and programs that apply specifically to development within the Southwest Bayshore subarea. The proposed use of the property and the applicant's plans are consistent with the applicable General Plan policies and programs, including the Southwest Bayshore subarea policies, including:

- Policy SWB.7 – the proposed expansion will be screened to match the existing yard
- Policies SWB.3, 119, 123, and Programs 83a 122a, b, & c, and 123a – a biological resources assessment of the site was conducted to comply with the provisions of the San Bruno Mountain Area Habitat Conservation Plan (HCP)
- SWB.4 – a soils and geotechnical report was required with this application and will be again at building permit application
- Programs 134a and 228d – Condition of Approval R, previously adopted and included herein, requires compliance with National Pollutant Discharge Elimination System, to protect stormwater quality.

5. *The planning commission shall determine whether or not the establishment, maintenance or operation of the use applied for will, under the circumstances of the particular case, be detrimental to the health, safety, comfort and general welfare of the persons residing or working in the neighborhood of such proposed use, or whether it will be injurious or detrimental to property and improvements in the neighborhood or the general welfare of the city.*

MK Pipelines has been operating under their current use permit (UP-9-12) as a contractor's storage yard for over nine years and there have been no code enforcement complaints or violations. Prior to that, the site was approved as a contractor's storage yard under UP-6-11, UP-5-11, UP-5-08, UP-6-07 and UP-3-06. The use is consistent with the mixed commercial and residential character of the Southwest Bayshore subarea and SCRO-1 Zoning District, and the recent use of the site, since at least 2006, has been a contractor's storage yard. The project will require a building permit, and its design and construction shall be subject to compliance with current California Building Code requirements for health and safety.

Furthermore, Cotton Shires Associates peer reviewed of the applicant's Geotechnical Report and Geologic Hazards Evaluation and concluded that, "a suitably designed deep foundation retaining wall, such as a soldier pile and lagging retaining wall proposed by the applicant, will not be injurious or detrimental to property and improvements in the neighborhood or the general welfare of the City," and, "does not object to the concept of the proposed retaining wall and grading project with regards to the City of Brisbane's health, safety, comfort and general welfare of the persons residing or working in the neighborhood."

Condition of approval F requires submittal of an engineering geology report, which incorporates recommendations made by Cotton Shires Associates to (1) perform geologic mapping to identify the limits of the identified landslide on a site-specific geologic map; and (2) complete laboratory testing to calculate site specific active and passive pressures for the retaining wall design during review of the projects grading permit and prior to issuance of the building permit.

6. *Adequate measures have been taken to protect workers and residents from the twenty-four (24) hour noise generated by traffic on Bayshore Boulevard.*

The project does not include the construction of any new structures, only the expansion of the existing paved storage yard to accommodate additional construction equipment and temporary storage of surplus material. Of the 27 employees, only four work directly onsite while the remaining 23 employees typically move from job site to job site, and no employees are onsite between 5:30 pm and 7:00 am. No additional measures are necessary to protect workers from noise generated by traffic on Bayshore Boulevard.

7. *The improvements have been designed in a manner that will make adequate provision for on-site parking and traffic circulation and safe ingress to and egress from the site.*

The proposed improvements do not require additional on-site parking and the site is adequately parked per BMC Chapter 17.34. Previous modifications were made to address safe ingress and egress from the site when a 60-foot-long concrete median was constructed on Bayshore Boulevard to prevent illegal turning movements across the southbound traffic lanes as part of the approval of UP-9-12.

8. *The improvements have been designed to be compatible with the topography and soils of the hillside.*

The proposed grading is limited to the area of the proposed paved storage yard and is located on a portion of the site that is relatively level area. The first 65-80 feet of the northeastern corner of the lot, measured from Bayshore Boulevard, has a slope of approximately 15% whereas the entire property has a slope closer to 46%, as measured per BMC Section 17.02.730. The new paved area would also be level with the existing structure and paved yard, approximately 11 feet above Bayshore Boulevard, and not extend any farther than the western limits of the existing paved lot. Proposed retaining walls will not exceed six feet in height and a Geotechnical Report and Geologic Hazards Evaluation was submitted for review by City staff, and peer reviewed by Cotton Shires Associates, and found to be sufficient to support the proposed grading plan. Furthermore, Condition of Approval L requires a licensed soils or geotechnical engineer to submit a Final Grading Observation Report to the City, summarizing conformance of the grading operations to the geotechnical report, prior to construction of the paved yard and retaining walls.

2024-LLA-2

9. Per BMC §16.12.070, contiguous parcels held by the same owner may be merged by recordation of a declaration of lot merger signed by the property owner and acknowledged by the Community Development Director. The City Attorney has reviewed the proposed lot merger and raised no concerns with this application.

2024-HCP-1

10. The proposed expansion of the contractor's storage yard on the subject property (HCP Management Unit 2-03-26) complies with the terms of the San Bruno Mountain Area Habitat Conservation Plan Agreement and Section 10(a) Permit, given the conditions of approval contained herein and HCP Operating Program contained in Exhibit B this Resolution 2024-EX-4/2024-UP-3/2024-LLA-2/2024-HCP-1.

Conditions of Approval:

Prior to Issuance of a Building Permit:

A. The applicant shall obtain a building permit and a grading permit prior to proceeding with construction. Plans submitted for the building and grading permits shall substantially conform to plans on file in the City of Brisbane Planning Department, with the following modifications:

   1. Plans submitted for grading permit review shall be subject to standard review procedures by the Department of Public Works.

   2. Drawings depicting all work completed and proposed shall be provided to the satisfaction of the City. Exposure of covered work may also be required to demonstrate compliance with building code requirements.

   3. Applicant shall submit a new C.3/C.6 Checklist, in conformance with the current Municipal Regional Stormwater Permit (Order No. R2-2022-0018). Should the grading and building permit plans show the project creates and/or replaces 5,000 square feet or more of impervious surface the project would be considered a regulated project under Section C.3 of the Order and shall actively manage stormwater treatment on-site through source control measures.

B. A one-time habitat conservation fee shall be paid to the City for habitat acquisition in lieu of designation of 40% of the parcel as conserved habitat. This mitigation shall be computed by multiplying the "mitigation fee land area" (40% of the property acreage) by the "mitigation fee market value" (the highest or most recent per square foot sales price, whichever is greater) within Administrative Parcel 2 -03-02 purchased by the City for purposes of open space preservation, as adjusted for inflation. This fee shall be paid prior to issuance of a grading permit from the City of Brisbane.

C. The applicant shall obtain an encroachment permit from the Department of Public Works for all proposed construction activity and private improvements within the public right-of-way. Requirements for specific street improvements shall be subject to the discretion of the City Engineer.

D. An agreement shall be recorded between the owner and the City whereby the owner waives the right to protest the inclusion of the property within an underground utility district.

E. A soils/geotechnical report prepared by an engineer licensed to perform geotechnical analysis shall be submitted for approval by the City Engineer. The report shall provide recommendations for site grading operations, a retaining wall foundation analysis, stability

of existing on-site ground slopes and calculation of any required pavement sections. The building permit plans shall be approved by the soils engineer consistent with the submitted soils report and shall be subject to the recommendations of the soils report.

F. An engineering geology report prepared by an engineer licensed to perform geotechnical and geologic analysis that addresses the recommendations contained within Cotton Shires Associates Geologic and Geotechnical Peer Review letter of the subject dated December 20, 2023 shall be submitted for review by the City Engineer prior to issuance of a grading (and building) permit.

G. As required by the Plan Operator (San Mateo County), the property owner shall become a signatory to the San Bruno Mountain Area Habitat Conservation Plan Agreement by signing an "Agreement to Comply with Terms and Conditions of the Agreement with Respect to the San Bruno Mountain Area Habitat Conservation Plan and Section 10(a) Permit" and shall record a Declaration of Covenants and Restrictions per Exhibit G of the Agreement with Respect to the San Bruno Mountain Area Habitat Conservation Plan, which shall include the requirement to participate in the HCP funding program.

H. The 32 square foot wall sign, approved under SR-2-13, located on the norther façade of the structure, shall be removed, as required per the conditional approval of SR-2-15.

<u>During Construction/Grading:</u>

I. Consistent with the biological resources assessment prepared by Coast Ridge Ecology, LLC, the following restrictions shall apply to demolition and construction activity on the site:

   1. Avoidance of Nesting Birds including Raptors. If feasible, vegetation removal and ground disturbance should be conducted outside of the nesting bird season (February 1 to August 31).

   2. Pre-Construction Nesting Bird Surveys including Raptors. If removal of vegetation is to occur during the nesting season (February 1 to August 31), it is recommended that surveys for nesting birds (including special status raptors) be conducted prior to any vegetation removal by a qualified biologist. Surveys should be conducted no more than one week (seven days) prior to vegetation removal or ground disturbance. If active nests are found, vegetation removal should only be conducted after the young have left the nest and the nest is no longer considered active (i.e. in use).

   3. Implementation of Nesting Bird Buffer Zones. If active nests are found within the survey area, suitable buffer zones should be established in consultation with CDFW to ensure nesting birds are not impacted by project activities. A buffer zone of 250’ is recommended for raptors, and a buffer of 100’ is recommended for passerines and other nesting birds. Buffer zones should be kept in place until nests are determined inactive by a qualified biologist.

J. All grading shall be contained on the site and shall comply with the provisions of Brisbane Municipal Code Chapter 15.01, San Mateo Countywide Stormwater Pollution Prevention program best management practices, and the Bay Area Air Quality Management District’s standard construction dust control measures.

K. If the grading operation takes place during hot and/or windy weather conditions, as determined by North County Fire Authority, water/fire extinguishers shall be available on site for immediate use.

L. Prior to construction of the paved storage yard and retaining walls, the soils engineer shall submit a Final Grading Observation Report to the City summarizing conformance of the grading operations to the geotechnical report required under Condition of Approval E.

M. Any prehistoric Native American cultural resources found during the course of construction shall be conserved in accordance with State and Federal requirements (refer to Appendix K of the State CEQA Guidelines and page 248 of Vol. II, 1994 Brisbane General Plan EIR).

Prior to Permit Final:

N. At time of final inspection, the HCP Plan Operator shall be notified in order to begin the annual assessment. Upon permit final, the Landowner shall pay an annual assessment to the San Bruno Mountain Conservation Fund. The annual assessment shall be as provided in HCP Chapter V-B.

Ongoing/Post Occupancy Conditions:

O. The Use Permit is for approval of a contractor's storage yard, limited to the existing 18,000 square feet +/- of the property already improved with a building and paved yard and the new 5,000 square feet +/- paved storage area (total 23,000 square feet +/-).

P. Hours of operation shall be restricted to 7:00 am and 5:30 pm, daily.

Q. No potentially hazardous or flammable materials shall be stored at the site without the approval of the North County Fire Authority (NCFA), and all materials shall be stored in compliance with the California Fire Code, as administered by the NCFA. No pesticides or herbicides shall be stored at the site without the approval of the HCP Plan Operator.

R. All Best Management Practice improvements necessary to prevent stormwater pollution per NPDES shall be implemented and maintained to the satisfaction of the Public Works Dept., including, but not limited to, the following:

1. All outdoor equipment and materials storage areas shall be designed to limit potential pollutants to contact runoff. Storage shall occur only on paved and contained areas. The pavement should be checked periodically for cracks and fractures, which should be sealed to prevent leakage.

2. Any non-hazardous liquids, such as latex-based paint, shall be stored indoors, unless otherwise approved by the Public Works Dept.

3. Wastewater from any vehicle/equipment washing operations shall not be discharged to the storm drain system. Any wastewater discharges to the sanitary system are subject to approval by the Public Works Dept.

4. No vehicle/equipment maintenance shall be performed outdoors, but shall be in a protected area that does not allow for ground contamination.

S. No grading, paving, vegetation removal, or new construction shall be permitted except in compliance with the Brisbane Municipal Code and the San Bruno Mountain Area Habitat Conservation Plan, which is administered through the San Mateo County Parks Department. A San Bruno Mountain Area HCP Site Activity Review shall be obtained from the County prior to any weed removal on undeveloped portions of the property.

T. Clearance for emergency access shall be provided between the rear fence and the hillside to the satisfaction of the NCFA, subject to approval of a San Bruno Mountain Area HCP Site Activity Review.

U. No off-site storage or parking is authorized under this Use Permit and these activities shall be on the paved portions of the site.

V. The site shall be maintained to keep adequate parking open for use by employees and keep emergency vehicle access open.

W. Access for emergency vehicles shall be maintained for a minimum width of 20 feet from the street to within 50 feet of at least two sides of the building and within 150 feet of the other sides of the building, to the satisfaction of the NCFA.

X. No signage is approved as part of this permit. Signage may be installed following application and approval of a sign permit, per Brisbane Municipal Code Chapter 17.36. See Condition of Approval H.

Y. The property shall be maintained free of litter.

Z. The fence shall be maintained so that it is in good repair. If replacement of the existing fence is needed, the fence shall comply with the requirements of Brisbane Municipal Code §17.32.050, which require that chain link fences are to be black or green vinyl coated and that barbed wire or similar materials are not allowed. The slats would also be required to match the replacement fence, subject to Community Development Director approval.

<u>Other Conditions</u>

AA. The property owner shall abide by the provisions of the adopted Operating Program for HCP Management Unit 2-03-26, the Habitat Conservation Plan, Habitat Conservation Plan Agreement, and Section 10(a) Permit.

BB. The required off-street parking spaces shall not be used or converted to any other use that would impair their basic use as parking for motor vehicles per Brisbane Municipal Code Chapter 17.34.

CC. The permittees agree to indemnify, defend and hold the City and its officers, officials, boards, commissions, employees and volunteers harmless from and against any claim, action or proceeding brought by any third party to attack, set aside modify or annul the approval, permit or other entitlement given to the applicant, or any of the proceedings, acts, or determinations taken, done or made prior to the granting of such approval, permit, or entitlement.

DD. Minor modifications may be approved by the Community Development Director in conformance with all requirements of the Brisbane Municipal Code.

EE. Pursuant to Brisbane Municipal Code §17.48.010, the Use Permit approval shall become null and void two years from its effective date (at the end of the appeal period) if a Building Permit has not yet been issued for the approved project, or if the Building Permit, once issued, is allowed to expire prior to final inspection.

FF. Approval of this application is to allow for the project as detailed in the Project Description contained in the Planning Commission staff report dated April 25, 2024, except where project parameters are modified expressly by this Resolution.

GG. Material violation of any of the conditions, including material deviation from the approved project description, may be cause for revocation of Use Permit 2024-UP-3 and termination of all rights granted there under.

EXHIBIT B: HCP Operating Program

2-03-26. 3708 Bayshore Boulevard (APN 007-350-100, APN 007-350-110, and APN 007-350-120). This management unit is located within the Southeast Ridge (2) Planning Area, Brisbane Acres Administrative Parcel (03). The property is owned by MK Pipelines and consists of a flat, asphalt-paved, construction yard built on APN 007-350-100 and APN 007-350-110, on the east side of the property. A steep, vegetated hillslope rises from the construction yard to the base of San Bruno Mountain on the west side of the property.

The proposed project involves the extension of the construction yard, north into APN 007-350-120, which is currently undeveloped. The project would involve approximately 5000 square feet of grading on the east side of the APN 007-350-120. The majority of the property would remain undeveloped. The project would include the removal of a current Allen-block wall installed between APN 007-350-110 and APN 007-350-120, and the installation of a new soldier pile and lagging wall around the west and north edge of the construction yard.

Coast Ridge Ecology, LLC prepared the Biological (Environmental) Assessment Report for the site in July 2022 that concluded that the site did not have any potential to support the Mission blue butterfly or Callippe silverspot butterfly. Several special-status raptor, bat, and insect species have potential to forage or roost on the property, primarily within areas of native habitat.

Obligations: The landowner/developer has the following obligations:

1. Habitat Conservation Fee. A one-time habitat conservation fee shall be paid to the City for habitat acquisition in lieu of designation of 40% of the parcel as conserved habitat. This mitigation shall be computed by multiplying the "mitigation fee land area" (40% of the property acreage – approximately 1.5 acres (66,885 square feet) by the "mitigation fee market value" (the highest or most recent per square foot sales price), whichever is greater) within Administrative Parcel 2-03 purchased by the City for purposes of open space preservation, as adjusted for inflation. This fee shall be paid prior to issuance of a grading permit from the City of Brisbane.

2. HCP Funding Program. Upon completion of the proposed project, the landowner shall pay an annual assessment to the San Bruno Mountain Conservation Fund consistent with the funding program described in HCP Chapter V-B.

3. Undeveloped portions of the site are required to have natural vegetation be retained (where applicable). Planting of invasive species on portions to be developed is prohibited, and aerial or large-scale spraying of pesticides without the prior approval by the Plan Operator is prohibited. Invasive species should be removed as feasible.

Attachment B: Aerial Vicinity Map

USE PERMIT APPLICATION CHECKLIST
FOR CONDITIONAL USES PER DISTRICT REGULATIONS

PROJECT DESCRIPTION

MK Pipelines is applying for a Use Permit for expanded operations at our current facility. MK Pipelines was previously issued UP-9-12 as we met the criteria under section 17.16.030, Section 2.

MK Pipelines has purchased the vacant lot directly adjacent to 3708 Bayshore Blvd. Brisbane. Per City request we are in the process of completing a lot merger and we wish to grade and expand our use into the adjacent lot. Plans for both the lot merger and proposed grading are attached to this application.

MK Pipelines is an underground utility contractor that performs primarily public works throughout the peninsula. Since our previous application the company has grown 25 – 30% hence necessitating the additional space. There are currently 27 employees working for MK Pipelines of which only 4 are domiciled/based at the office location. All other staff work on job sites and are only at the facility incrementally or as needed as no dispatch to job sites is taken place from the office location. Crews move from job site to job site along with the equipment. We own approximately 35 pieces of construction equipment i.e., excavators/backhoes/pick-up trucks which move directly from job site to job site 90% of the time. There are however some lags that do occur and equipment needs to come back to the base whilst waiting for another project to begin. MK Pipelines employs one heavy haul driver to bring equipment to and from the shop as required.

MK Pipelines business model is set up that all material delivery is delivered directly to job sites, no delivery of material is transferred through the shop location. We do however at the end of some projects have surplus materials that do come back to the shop for reuse on a future project or to be picked up and returned to the vendor. Special order items that have long lead times may occasionally be delivered to the shop whilst waiting for the project to begin. Minimum fabrication of construction materials is carried out at the shop.

As per our current UP-9-12 storage of pipe materials is predominantly carried out behind the existing shop up to 15’ tall and this is reflected on the Site Plan. There are miscellaneous small materials stored outside i.e., excavator buckets/steel plates etc. In our current use the facility is concealed as there was a 6’ tall brown slatted fence installed as part of Grading Permit 13-0326-13 and as the current and future yard sits at an elevation approximately 11’ higher than the street it means the yard cannot be seen easily from road traffic or foot traffic on Bayshore Blvd.

The proposed future use involves the grading/paving of the vacant lot in order to increase our laydown/equipment storage etc. to support our expanded business growth. No further parking spots will be required as all disabled parking and regular parking spots as detailed in Grading Permit 13-0326-13 will remain untouched and exceed current needs. The future grading will incorporate all of the exact same elements previously approved i.e., same pre-engineered Allen block retaining walls will be used and the same brown slatted fence will be used.

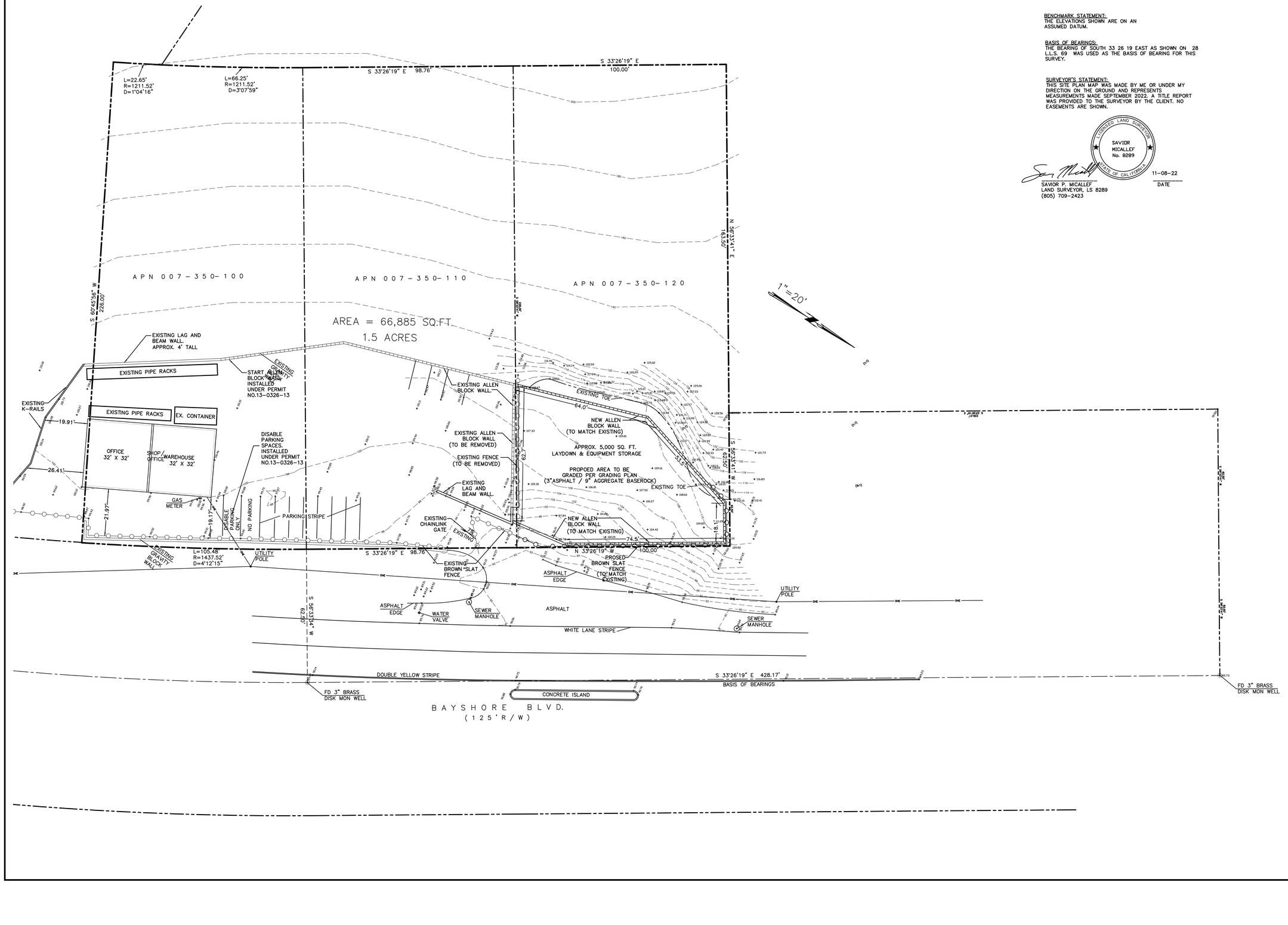
MK Pipelines has been operating under current use permit for over 9 years and to the best of our knowledge there has been zero complaints or zero code violations. We are inspected regularly by a number of different agencies, San Mateo Environmental, San Francisco Water Power Sewer, Brisbane Public Works and North Coast County Fire Department and we are glad to report in 9 plus years we have had zero code

violations with any of the above agencies. In short, we have been a good neighbor and intend to continue operating in the exact same manner.

DEVELOPMENT PLANS

- Site Plan is attached showing existing structures and dimensions
- Existing Parking Plan is on Site Plan and there will be no changes
- Conceptual Grading Plan is attached with quantities
- Conceptual Landscape Plan – TBD – It was discussed at our meeting that a landscape plan may not be required for this project as 75% of the lot is to remain native planting and landscape and will be untouched.
- Topographic Map – Topo Plan is shown on the Boundary Map as requested.
- Storm Water Checklist – small projects checklist is attached

1. (a) Hours of operations are between 7AM and 5:30PM for the office/warehouse.
1. (b & c) MK currently owns 10 excavators, 2 backhoes, 8 skidsteers, 8 Terex Dumpers, 6 Utility Trucks, 1 heavy haul truck, 2 medium light duty trucks. We currently own 2 trailers that are used for transportation of the heavy equipment. Our equipment and trailers rarely come back to the warehouse as the preferred method is to move from project to project. At any one time there may be an average of 4 pieces of equipment in the yard and the additional two trailers. On rare occasions if job site scheduling does not allow that can increase up to 10 pieces of equipment. We cannot breakdown the type specifically of equipment as it changes daily and weekly.
1. (d) Crews are not dispatched from the warehouse they start their workday on the job sites. A member of the crew may return to the warehouse twice to three times a week to pick up miscellaneous small equipment and/or documentation from the office.
1. (e) Heavy haul truck can average two trips daily.
1. (f) In general MK never plans to store surplus materials at the warehouse. Surplus materials from the job sites are generally picked up by vendors directly at the job site. We have occasions when the pipe/pre cast catch basins etc. have been on job sites and the vendor will refuse to accept return and we will bring these back to the warehouse whilst we wait for reuse on an upcoming project. In our 10 years of operations we have never had to store dirt/gravel, we do not ever anticipate a circumstance where would be storing dirt at the facility. There could be in instance where gravel material (3/4" drain rock) may have to be stored on a Friday for an upcoming weekend job (quarries are closed for pickup of materials on Saturdays). MK would classify miscellaneous small materials as catch basins, manhole covers, valves and fittings for water mains.
1. (g) In 10 years of operation MK has had to fabricate one storm drain pump onsite. Fabrication of any and all materials is normally done on the job site, there is no plan now or at any time in the future to carry out any small or medium scale fabrication, but if the occasion does arise it will occur both outside and inside the warehouse.
1. (h) MK Pipelines does not handle, store or dispose of any hazardous materials either onsite or offsite.



BENCHMARK STATEMENT:
THE ELEVATIONS SHOWN ARE ON AN ASSUMED DATUM.

BASIS OF BEARINGS:
THE BEARING OF SOUTH 33 26 19 EAST AS SHOWN ON 28 L.L.S. 69 WAS USED AS THE BASIS OF BEARING FOR THIS SURVEY.

SURVEYOR'S STATEMENT:
THIS SITE PLAN MAP WAS MADE BY ME OR UNDER MY DIRECTION ON THE GROUND AND REPRESENTS MEASUREMENTS MADE SEPTEMBER 2022. A TITLE REPORT WAS PROVIDED TO THE SURVEYOR BY THE CLIENT. NO EASEMENTS ARE SHOWN.

LICENSED LAND SURVEYOR
SAVIOR MICALLEF No. 8289
STATE OF CALIFORNIA

SAVIOR P. MICALLEF
LAND SURVEYOR, LS 8289
(805) 709-2423

11-08-22
DATE

SAVIOR P. MICALLEF LAND SURVEYING
421 WILDWOOD DRIVE
SOUTH SAN FRANCISCO, CA 94080
805/709-2423

SITE PLAN

MK YARD, LLC 3708 BAYSHORE BLVD

CITY OF BRISBANE SAN MATEO COUNTY CALIFORNIA

Revisions	No.

Date	11-08-22
Scale	1"=20'
Design	
Drawn	SPM
Approved	SPM
Job No	

Drawing Number:

1 OF 1

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO 2022 CALIFORNIA BUILDING CODE, MECHANICAL, PLUMBING, CALIFORNIA ENERGY CONSERVATION; AND 2022 CALIFORNIA ELECTRICAL CODE, AND BRISBANE BUILDING CODE REQUIREMENTS.

2. DESIGN AND PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE CODE AC1 318.

3. ALL CONDITIONS AND DIMENSIONS TO BE VERIFIED IN THE FIELD BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

4. CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING/PROTECTION DURING CONSTRUCTION.

5. CONCRETE Fc = 3000 psi.

6. REINFORCING STEEL TO BE ASTM 615, GRADE 60.

7. STRUCTURAL STEEL ASTM A992 Fy 50,000 psi. & A36, Fy=36,000 psi.

8. LUMBER D.F. # 1 Fb = 1000 psi, Fv = 95 psi. FOR HEADER, POST, BEAMS & JOIST. #2 Fb = 900 psi, Fv = 95 psi. FOR PLATES AND STUDS.

9. LUMBER 2.2E PARALLAM PSL: Fb = 2900 psi, Fv = 290 psi.

10. CONSTRUCTION INSPECTION SHALL BE CARRIED OUT BY A REGISTERED ENGINEER AND A CITY BUILDING OFFICIAL.

11. ALL EXPOSED STEEL SHALL BE HOT DIPPED ZINC COATED GALVANIZED PER THE AMERICAN GALVANIZERS ASSOCIATION OR PAINTED PER THE SOCIETY OF PROTECTIVE COATINGS TO PROTECT IT FROM CORROSION.

12. ALL LUMBER EXPOSED TO WEATHER SHALL BE PRESSURE-PRESERVATIVE TREATED.

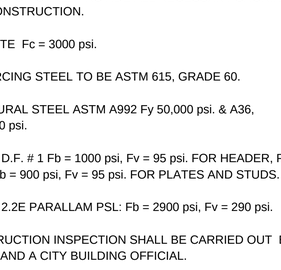
13. ALL HARDWARE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.

14. ALL CUT P.T. LUMBER SHALL BE TREATED WITH COPPER GREEN OR EQUIVALENT.

15. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STEEL MEMBERS AND CONNECTIONS TO ARCHITECT/ENGINEER AS APPROPRIATE TO REVIEW BEFORE FABRICATION.

PROJECT INFORMATION:

APN# 007-350-100
USE: SCRO-1, SOUTHWEST BAYSHORE COMMERCIAL DISTRICT
OCCUPANCY TYPE: COMMERCIAL



LOCATION MAP
NTS

SYMBOLS

SECTION/ DETAIL 1/S5 — SECTION/ DETAIL; DRAWING WHERE SECTION/ DETAIL IS LOCATED

SECTION/ DETAIL 2/— — SECTION/ DETAIL LOCATED ON SAME DRAWING

SITE PLAN
1/16"=1'-0"

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASHPALT CONCRETE
ADJ	ADJACENT
ASP	ASPHALT
AVE	AVENUE
BK	BACK OF WALK
BMP	BEST MANAGEMENT PRACTICE
BOE	BOTTOM OF EXCAVATION
BOP	BOTTOM OF PIER
BP	BOTTOM OF POOL
BW	BOTTOM OF WALL
CL	CENTER LINE
CO	CLEAN OUT
CONC	CONCRETE
COR	CORNER
DI	DUCTILE IRON
DMA	DRAINAGE MANAGEMENT AREA
(E)	EXISTING
EA	EACH
EG	EXISTING GRADE
EL	ELEVATION
EP	EDGE OF PAVEMENT
FFE	FINISH FLOOR ELEVATION
FL	FLOW LINE
FT	FEET
GND	GROUND
GV	GAS VALVE
HSS	HOLLOW STEEL SECTION
INV	INVERT
LID	LOW IMPACT DESIGN
MAX.	MAXIMUM
MH	MANHOLE
(N)	NEW
N.T.S.	NOT TO SCALE
(P)	PROPOSED
PL	PROPERTY LINE
PT	PRESSUR TREATED
RF	ROOF
SAD	SEE ARCHITECTURAL DRAWINGS
SD	STORM DRAIN
SMD	SEE MECHANICAL DRAWINGS
SLD	SEE LANDSCAPE DRAWINGS
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEAN OUT
SSD	SEE STRUCTURAL DRAWINGS
SSMH	SANITARY SEWER MANHOLE
ST	STREET
TC	TOP OF CURB
TF	TO OF FOOTING
TOC	TOP OF CONCRETE
TP	TOP OF PAVEMENT
TS	TOP OF SLOPE
TW	TOP OF WALL
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
WM	WATER METER
WV	WATER VALVE
@	AT

SHEET INDEX

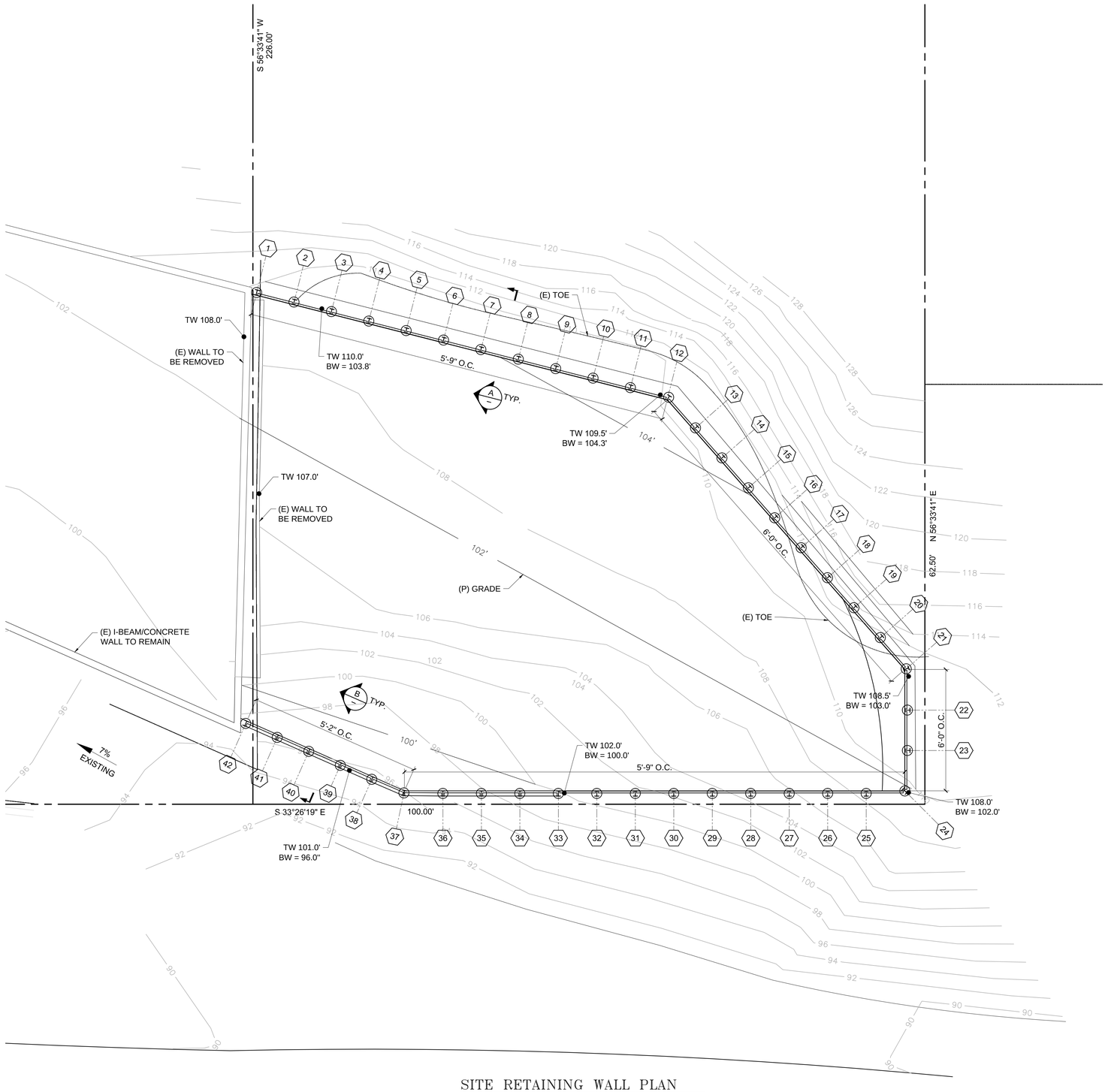
SCOPE OF WORK

NEW SITE RETAINING WALL CONSISTING OF SOLDIER BEAMS AND WOOD LAGGINGS.

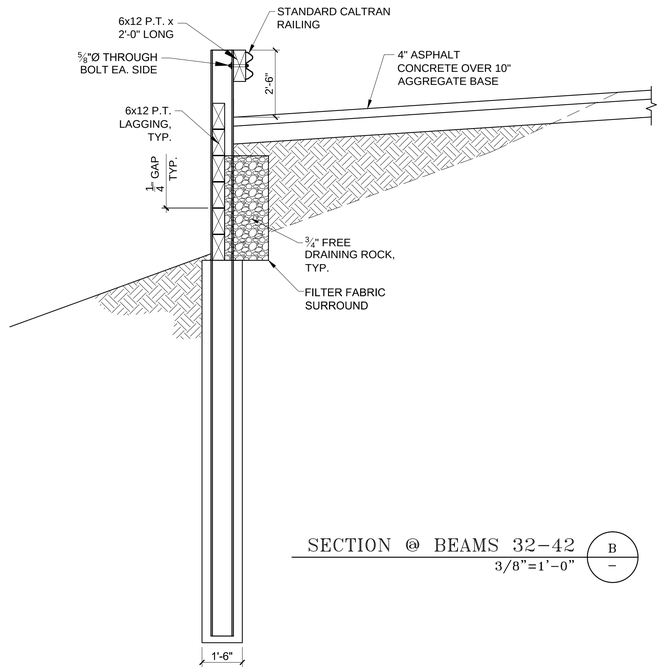
PRELIMINARY. NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER — KEVIN O'CONNOR — EXP. 9.30.25 — No. C65297 — CIVIL — STATE OF CALIFORNIA

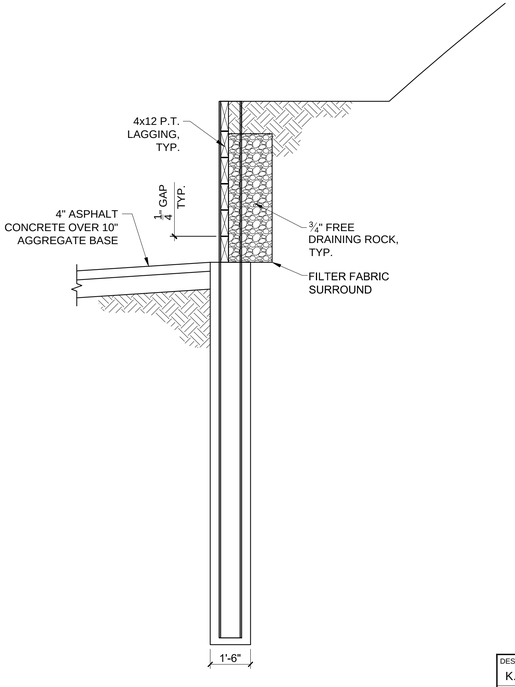
DESIGNED	DATE	KEVIN O'CONNOR, INC.	TEL: 415-286-3442
K.O'C.	11/20/23	4033 LINCOLN WAY	FAX: 415-665-5252
DRAWN		San Francisco CA 94122	WWW.KOCENGINEERING.COM
K.P.	11/20/23		
CHECKED		TITLE	
K.O'C.	11/20/23	SITE RETAINING WALL 3708 BAYSHORE BLVD BRISBANE CA 94005	
		PROJECT NO. 2023-74	DRAWING NO. 1
			REV.



SITE RETAINING WALL PLAN
1/8"=1'-0"



SECTION @ BEAMS 32-42
3/8"=1'-0"
B
–

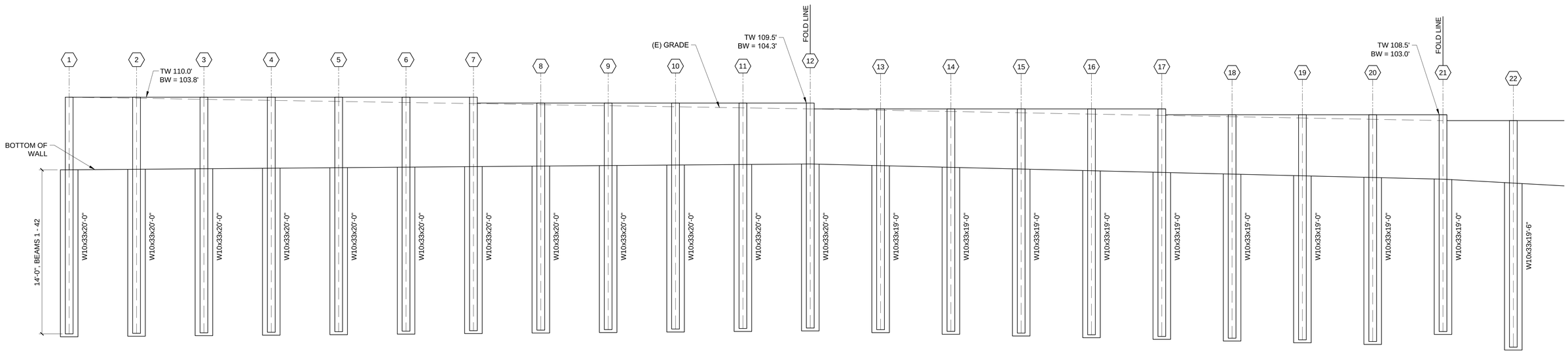


SECTION @ BEAMS 1-31
3/8"=1'-0"
A
–

PRELIMINARY. NOT FOR CONSTRUCTION

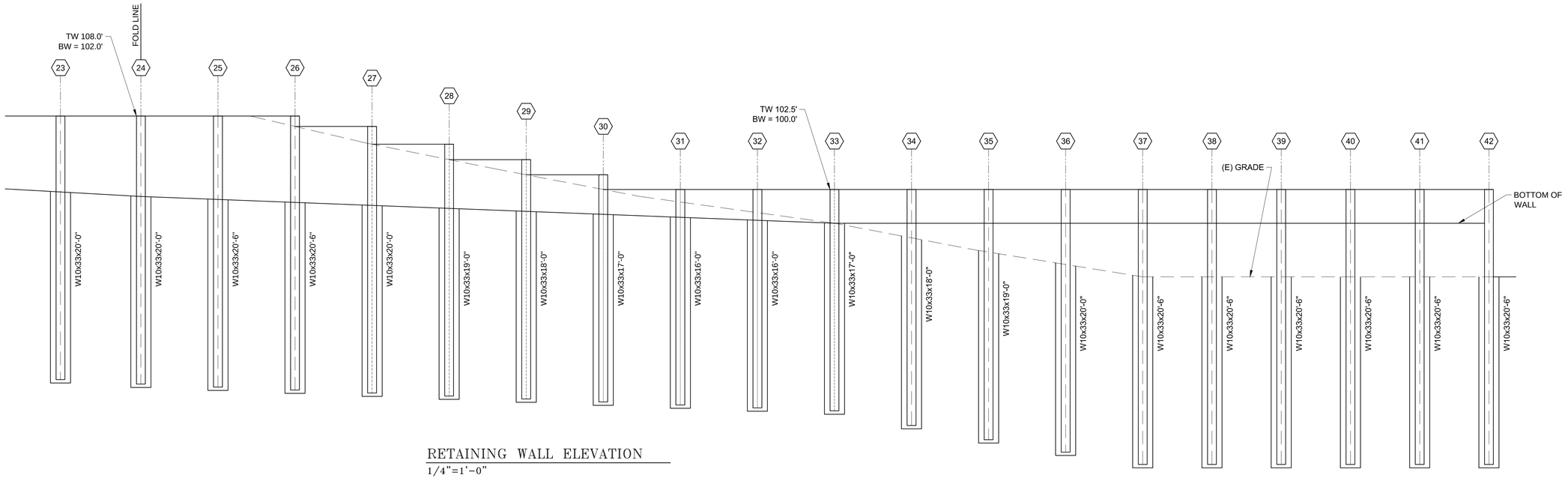
REGISTERED PROFESSIONAL ENGINEER
KEVIN O'CONNOR
EXP. 9.30.25
No. C65297
CIVIL
STATE OF CALIFORNIA

DESIGNED	DATE		
K.O'C.	11/20/23	KEVIN O'CONNOR, INC.	TEL: 415-286-3442
DRAWN		4033 LINCOLN WAY	FAX: 415-665-5252
K.P.	11/20/23	San Francisco CA 94122	WWW.KOCENGINEERING.COM
CHECKED		TITLE	
K.O'C.	11/20/23	SITE RETAINING WALL 3708 BAYSHORE BLVD BRISBANE CA 94005	
		PROJECT NO. 2023-74	DRAWING NO. 2
			REV.



RETAINING WALL ELEVATION

1/4"=1'-0"

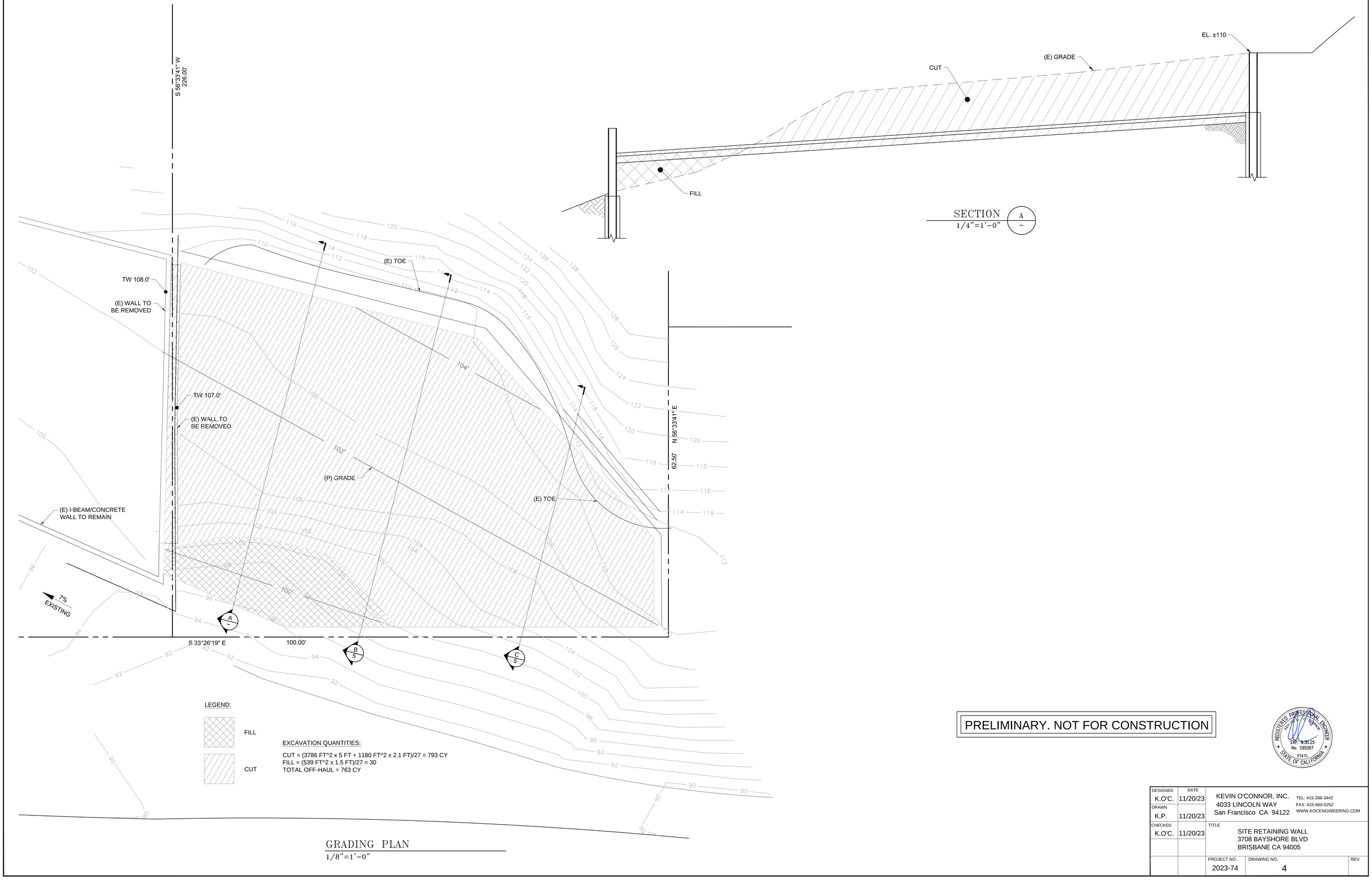


RETAINING WALL ELEVATION

1/4"=1'-0"

PRELIMINARY. NOT FOR CONSTRUCTION

DESIGNED K.O'C.	DATE 11/20/23	KEVIN O'CONNOR, INC. 4033 LINCOLN WAY San Francisco CA 94122	TEL: 415-286-3442 FAX: 415-665-5252 WWW.KOCENGINEERING.COM
DRAWN K.P.	11/20/23		
CHECKED K.O'C.	11/20/23	TITLE SITE RETAINING WALL 3708 BAYSHORE BLVD BRISBANE CA 94005	
		PROJECT NO. 2023-74	DRAWING NO. 3
			REV.



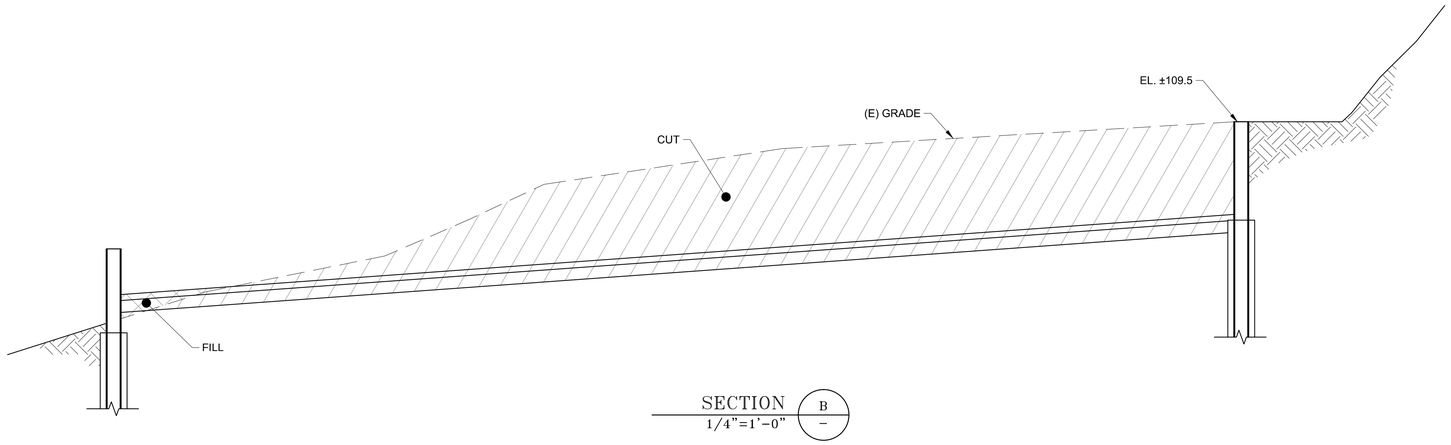
GRADING PLAN
1/8"=1'-0"

SECTION A
1/4"=1'-0"

PRELIMINARY. NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
KEVIN O'CONNOR
EXP. 9.30.25
No. C65297
CIVIL
STATE OF CALIFORNIA

DESIGNED K.O'C.	DATE 11/20/23	KEVIN O'CONNOR, INC. 4033 LINCOLN WAY San Francisco CA 94122	TEL: 415-286-3442 FAX: 415-665-5252 WWW.KOCENGINEERING.COM
DRAWN K.P.	11/20/23		
CHECKED K.O'C.	11/20/23	TITLE SITE RETAINING WALL 3708 BAYSHORE BLVD BRISBANE CA 94005	
		PROJECT NO. 2023-74	DRAWING NO. 4
			REV.



SECTION B
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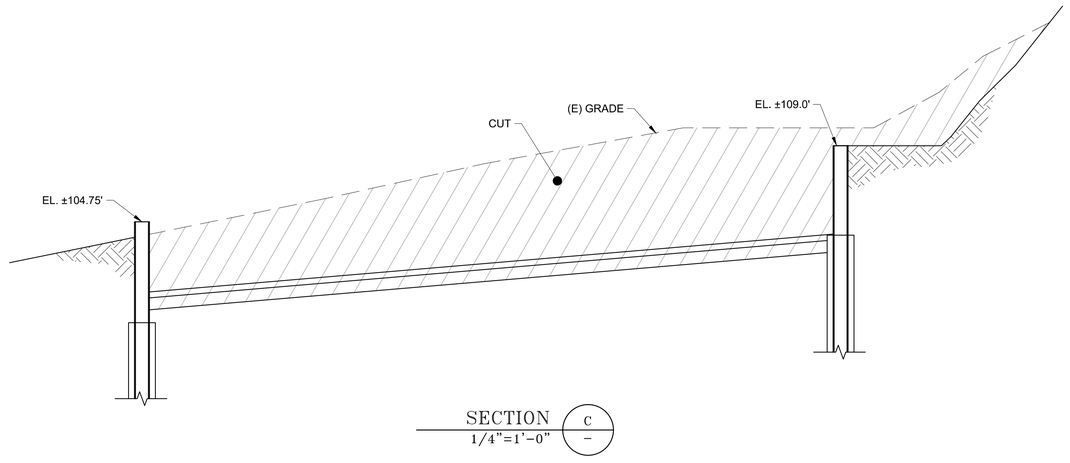


SECTION C
1/4"=1'-0"

PRELIMINARY. NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
KEVIN O'CONNOR
EXP. 9.30.25
No. C65297
CIVIL
STATE OF CALIFORNIA

DESIGNED	DATE		
K.O'C.	11/20/23	KEVIN O'CONNOR, INC. 4033 LINCOLN WAY San Francisco CA 94122	TEL: 415-286-3442 FAX: 415-665-5252 WWW.KOCENGINEERING.COM
DRAWN K.P.	11/20/23		
CHECKED K.O'C.	11/20/23	TITLE: SITE RETAINING WALL 3708 BAYSHORE BLVD BRISBANE CA 94005	
		PROJECT NO. 2023-74	DRAWING NO. 5 / REV.

Existing facility above; proposed expansion lower right

Existing brown-slatted fence and Allen-block retaining wall used throughout the site

Attachment D: Assessor's Parcel Map

ATTACHMENT E

8/24/2023 Action Minutes and Planning Commission Agenda Report for 2022-UP-7/2022-EX-5/2022-LLA-3/2022-HCP-1 (hyperlink)

Biological Assessment Report for 3708 Bayshore Blvd. Brisbane, CA

Prepared for City of Brisbane

July 2022

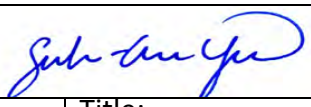
Prepared by:
Coast Ridge Ecology, LLC
1410 31st Avenue
San Francisco, 94112
CRecology.com

Biological Assessment for 3708 Bayshore Boulevard

Applicant: MK Pipelines, Inc
Project Lead: City of Brisbane
Total parcel size: 1.0 Acres
Assessor Parcel Numbers: 007-350-110, 007-350-100
Project Proposal Description: This assessment was prepared prior to preparation of plans to develop the subject parcels.The applicant intends to extend their existing contractor's yard north into APN 007-230-120; this work will not impact the footprint of the existing construction yard on the property.

Prepared for the San Mateo County Parks Department and City of Brisbane by:
Coast Ridge Ecology, LLC

As a qualified Biologist, I hereby certify that this Biological Assessment was prepared according to the County Parks' requirements and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge.

Qualified Biologist (signature): 		Date: July 1, 2022
Suk-Ann Yee	Title: Senior Biologist	Company: Coast Ridge Ecology, LLC
Phone:415-404-6757	email: syee@crecology.com	
Role: Project Manager and Lead Author		

Other Biologist (signature):		Date:
Name (printed): Greg Pfau	Title: Associate Biologist II	Company: Coast Ridge Ecology, LLC
Phone: 415-404-6757	email: gpfau@crecology.com	
Role: Map Production		

Biological Study Checklist

This Biological Assessment DID provide adequate information to make recommended California Environmental Quality Act (CEQA) findings regarding potentially significant impacts.

	Project Impact Degree of Effect				**Cumulative Impact Degree of Effect**			
	N	LS	PS-M	PS	N	LS	PS-M	PS
Biological Resources								
Species		X			X			
Ecological Communities	X				X			
Habitat Connectivity	X				X			

N: No impact

LS: Less than significant impact

PS-M: Potentially significant unless mitigation incorporated.

PS: Potentially significant

Contents

Appendices

List of Tables

List of Figures

Summary

A Biological Assessment was conducted for 3708 Bayshore Boulevard (comprised of APN 007-350-110, and APN 007-350-100). The property is approximately one acre in size and is located on the east side of San Bruno Mountain. The parcels lie west of Bayshore Boulevard, north of the intersection of Bayshore Blvd and Van Waters and Rodgers Rd. Brisbane Lagoon lies to the east of Bayshore Boulevard. The parcels are rectangular in shape and are bordered by undeveloped lands to the north, south, and west. The parcels are located within the Southwest Bayshore Commercial District, which is a mixed use Subregional Commercial Retail/Office zone (SCRO-1 zoning district; City of Brisbane General Plan, 2022).

There is currently no proposed development for the parcels. Although the applicant plans to extend their existing yard north into APN 007-230-120, this work is not anticipated to impact the footprint of the existing construction yard on the property. The findings of this Assessment will be reviewed upon submittal of project plans to confirm their applicability to the final project scope. A biological resources assessment for APN 007-230-120 was prepared in 2021 by MIG, Inc.

A total of four vegetation communities are found within the study area: French Broom Semi-Natural Shrubland Stands, Developed, Eucalyptus Semi-Natural Woodland Stand and Wild Oats Semi-Natural Herbaceous Stands. Only two of these vegetation communities are found within the project parcels; French Broom Semi-Natural Shrubland Stands and Developed. The eastern portion of the parcel is a developed construction yard owned by MK Pipelines, Inc. The western portion consists of a steep slope vegetated with non-native shrubland species, intermingled with some native shrub species including coyote brush and toyon. The parcels provide some limited wildlife habitat for local wildlife species.

No special status wildlife or plant species were observed on the parcel or the surrounding 60-foot buffer that was included in the survey area. No sensitive plant communities, wildlife connectivity features, or waters or wetlands were observed in the survey area. Based upon the habitat and condition of the survey area, the site has low potential to provide habitat for any special status species. Two special status wildlife species (Cooper's hawk and Northern harrier) were identified as having moderate potential to be found within the study area. Nine special status wildlife species and five special status plant species were identified as having a low potential to occur within the study area.

Section 1. Construction Footprint Description

Construction Footprint Definition (per the San Mateo County Planning & Building): The construction footprint includes the proposed maximum limits of temporary or permanent direct land or vegetation disturbance for a project including such things as the building pad(s), roads/road improvements, grading, septic systems, wells, drainage improvements, fire hazard brush clearance area(s), tennis courts, pools/spas, landscaping, storage/stockpile areas, construction staging areas, fire department turnarounds, utility trenching and other grading areas. The construction footprint on some types of projects, such as mining, oil and gas exploration or agricultural operations, may be quite different than the above.

Development Proposal Description

There is currently no proposed development for the parcels. Although the applicant plans to extend their existing yard north into APN 007-230-120, this work will not impact the footprint of the existing construction yard on the property.

Coastal Zone/Overlay Zones

The parcel is located on the east side of San Bruno Mountain within the City of Brisbane, CA. The parcel is not within the Coastal Zone, Scenic Resources Protection Overlay Zone, Mineral Resources Protection Overlay Zone, or the Scenic Highway Protection Overlay Zone.

Zoning

The parcels are located within the Southwest Bayshore Commercial District, which is a mixed use Subregional Commercial Retail/Office zone (SCRO-1 zoning district; City of Brisbane General Plan, 2022).

Elevation

The parcel rises steeply from east to west. Elevation of the parcel ranges from 30 feet above Mean Sea Level (MSL) at the eastern edge along Bayshore Boulevard to 152 feet above MSL on the western edge of the property, located just downslope of the Stanislaus Walking Trail.

Section 2. Survey Information

2.1 Survey Purpose

Discretionary actions undertaken by public agencies are required to demonstrate compliance with the California Environmental Quality Act (CEQA). The purpose of this Biological Assessment (BA) is to gather enough information about the biological resources associated with the proposed project, and their potential to be impacted by the project, to make a CEQA Initial Study significance finding for biological resources. In general, BAs are intended to:

- Provide an inventory of the biological resources on a project site and the values of those resources.
- Determine if a proposed project has the potential to impact any significant biological resources.
- Recommend project redesign to avoid, minimize or reduce impacts to significant biological resources.
- Recommend additional studies necessary to adequately assess potential impacts and/or to develop adequate mitigation measures.
- Develop mitigation measures, when necessary, in cases where adequate information is available.

2.2 Survey Area

> *Survey Area Definition (using the SMC Planning & Building definitions): The physical area a biologist evaluates as part of a biological assessment. This includes all areas that could potentially be subject to direct or indirect impacts from the project, including, but not limited to: the construction footprint; areas that would be subject to noise, light, dust or runoff generated by the project; any required buffer areas (e.g., buffers surrounding wetland habitat). The construction footprint plus a 100 to 300-foot buffer— beyond the required fire hazard brush clearance boundary—(or 20-foot from the cut/fill boundary or road fire hazard brush clearance boundary – whichever is greater) is generally the size of a survey area. Required off-site improvements—such as roads or fire hazard brush clearance—are included in the survey area. Survey areas can extend off the project's parcel(s) because indirect impacts may cross property lines. The extent of the survey area shall be determined by the biologist in consultation with County Parks.*

The survey area includes the entire 1.0 acre parcels at 3708 Bayshore Boulevard, and a 60-foot buffer surrounding the parcel, as approved by the City and County. The entire survey area was assessed for biological resources during the site visit (Table 1).

Location

The parcels are located at 3708 Bayshore Boulevard and is within the City of Brisbane, along the eastern edge of San Bruno Mountain (Figure 1). The parcels lie west of Bayshore Boulevard, north of the intersection of Bayshore Blvd and Van Waters and Rodgers Rd. Brisbane Lagoon lies to the east of Bayshore Boulevard. The parcels are rectangular in shape are bordered by undeveloped lands to the north, south, and west.

The property lies within the San Bruno Mountain Habitat Conservation Plan (SBM-HCP) area. The SBM-HCP allows development in specific areas on the Mountain, protection of biologically significant habitat areas, and a funding mechanism for managing conserved habitat areas. The closest conserved habitat areas within the SBM-HCP are approximately 0.5 mile to the south of the subject parcels.

Survey Area Environmental Setting

The survey area consists of an asphalt paved construction yard belonging to MK Pipelines, Inc. located on the east side of the property and a relatively steep, vegetated hillslope, rising from the construction yard up into the base of San Bruno Mountain on the west side of the property. The construction yard is completely flat, is asphalt-paved, and contains an office building. It is actively used as an office and for equipment storage by MK Pipelines, Inc. Water drains from west to east on the site, and there are no explicit water bodies, drainages or wetlands present within the survey area. Representative photos of the site and survey area are provided in Section 5.

Surrounding Area Environmental Setting

The survey area is bordered by Bayshore Blvd on the east, with the Brisbane lagoon lying on the other side of Bayshore Blvd, approximately 200’ east of the survey area. Immediately to the north, south, and west lie open space parcels. A commercial development lies approximately 700’ to the south, and single-family homes lie to the west, beginning as close as 200’ from the study area.

Cover

Types of cover of the survey area is quantified as follows:

14% non-native vegetation

58 % non-native vegetation interspersed with some native vegetation

28 % buildings, paved roads, and/or other impervious cover

Figure 1: Project Location Map
3708 Bayshore Boulevard, Brisbane, CA

0 0.1 0.2 0.4 0.6 Miles

Service Layer Credits: USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National

Legend

Project Location

Figure 2: Site and Survey Map

3708 Bayshore Blvd, Brisbane, CA

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- Biological Survey Area
- Site Parcel Boundary

2.3 Methodology

The California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDB) was consulted for known occurrences of sensitive plant, animal, and natural plant communities of concern found within the San Francisco South and six surrounding 7.5' USGS topographic quadrangles (CNDDB, 2022). Data from CNDDB, California Native Plant Society (CNPS) On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS, 2022), USFWS Critical Habitat maps (USFWS, 2022), knowledge of regional biota, and observations made during the field survey, were used to evaluate on-site habitat suitability for special status plant and wildlife species within the study area.

Table 1. Survey Details

Survey Key[1]	Survey Date	Survey Area Map Keys	Survey Type[2]	Time Period	Methods/Constraints	Surveyors
SD1	04/13/2022	SA1	BA	9:00am-1:00 pm	Walking transects. Portions of the site could not be hiked due to steepness; however, the entire site was visible from various vantage points.	Suk-Ann Yee, Ranit Cohen

1. SD= Survey Date
2. BA= Biological Assessment

Section 3. The Biological Inventory

3.1 Ecological Communities: Plant Communities, Physical Features, and Wetland

Background research was conducted prior to conducting the field visits in order to identify expected rare or locally important plant communities, USFWS mapped critical habitat and any mapped wetlands or streams. A 3-mile radius was used in conducting the research.

Plant Communities

Locally important or rare plant communities were not found within the survey area(s).

Major Plant Communities Summary

A total of four vegetation communities are found within the study area: **French Broom Semi-Natural Shrubland Stands, Developed, Eucalyptus Semi-Natural Woodland Stand** and **Wild Oats Semi-Natural Herbaceous Stands** (CNPS, 2009). Only two of these vegetation communities are found within the project parcels; French Broom Semi-Natural Shrubland Stands and Developed. The location of the plant communities within the survey area are shown in Figure 3.

French Broom Semi-Natural Shrubland Stands are found on the western half of the site and is the dominant plant community on the property. It is located on the steep slopes of the property above the developed construction yard. This vegetation community is dominated by French broom (*Genista monspessulana*), although native shrub species including toyon (*Heteromeles arbutifolia*), coyote brush (*Baccharis pilularis*), and poison oak (*Toxicodendron diversilobum*) are also present and increase in cover farther upslope from the construction yard. Understory species present within this vegetation community included native forbs such as figwort (*Scrophularia californica*), miner's lettuce (*Claytonia perfoliate*) and coastal woodfern (*Dryopteris arguta*). Non-native and invasive species within this habitat type included Italian thistle (*Carduus pycnocephalus*), Himalayan blackberry (*Rubus armeniacus*) and Bermuda buttercup (*Oxalis pes-caprae*)

The Developed portion of the property is located on the eastern flatter portion of the site and is made up of a paved asphalt area that serves as a construction yard for MK Pipelines, Inc. Very little ruderal vegetation is present along the edges of the Developed areas. In addition, a portion of the driveway to the construction yard, and Bayshore Blvd are also designated as Developed.

A small area of Eucalyptus Semi-Natural Woodland Stand is found on the south border of the study area. It is dominated by blue gum eucalyptus (*Eucalyptus globulus*) with an understory of poison oak, and toyon, as well as non-native herbaceous species. Understory herbaceous species include Italian thistle, summer mustard (*Hirschfeldia incana*), panic veldtgrass (*Erharta erecta*), and red valerian (*Centranthus ruber*).

Additionally small areas of Wild Oats Semi-Natural Herbaceous Stands are found within the study area between Bayshore Blvd and the property, as well as on the northern and western corners of the study area. These grassland areas are dominated by non-native grass and forb species such as slender wild oats (*Avena barbata*), bristly ox-tongue (*Helminthotheca echoioides*) and pincushion plant (*Scabious atropurpurea*).

A full list of species observed within the study area is provided in Table 3.

Table 2. Plant Communities

Map Key[1]	MCV Alliance	MCV Association	Misc.	Status	Condition	Acres Total	Acres Impacted	Comments
PC1	Semi-Natural Shrubland Stands	Broom patches	Toyon and coyote brush provide some native cover		Intact	1.42	0	Non-native dominant
PC2	Developed		Developed	None		0.69	0	Generally unvegetated, paved asphalt surface
PC3	Semi-Natural Herbaceous Stands	Wild oats grassland			Intact	0.25	0	Non-native dominant
PC4	Semi-Natural Woodland Stands	Eucalyptus groves		None	Intact	0.10	0	Non-native dominant.
					Totals		0	

[1]*PC= Plant Community*

Figure 3: Plant Communities and Photopoints Map

3708 Bayshore Blvd, Brisbane, CA

Service Layer Credits: Golden Gate National Parks Conservancy and San Mateo County

Legend

- Site Parcel Boundary
- Biological Survey Area
- Photopoint

Plant Communities

- Avena Semi-Natural Grassland
- Developed
- Eucalyptus Semi-Natural Woodland
- French Broom Semi-Natural Shrubland

Physical Features

No additional physical features that may be important to the site's biological resources were present within the survey area. The office building located in the southern portion of the construction yard was examined for potential bat roosting habitat and signs of roosting bats (e.g. guano). Although corrugated metal sheeting covers the outer walls of the building, the depth of any potential roosting cavities is inadequate to support bat roosts.

Waters and Wetlands

Waters and wetlands were not found within the survey area.

According to the U.S. Fish and Wildlife National Wetlands Inventory (accessed May 26, 2022) the nearest mapped water sources are the Brisbane Lagoon located 250' to the east, and an intermittent stream located a quarter mile to the south.

There are no indications of wetland features on the parcels or within the survey area. There are no visible signs of wetland vegetation, or wetland hydrology (channels, vernal pools, etc.), to indicate a concentration of water collecting on or flowing through or adjacent to the parcels.

Soils

There are three soil types within the survey area boundaries identified by Natural Resource Conservation Science (NRCS 2022): Orthents, cut and fill, 15-75 percent slopes, Candlestick-Kron-Buriburi complex, 30-75 percent slopes, and Urban Land.

Orthents, cut and fill soils are derived from primarily from weathered sandstone and have been cut and filled for urban development. Orthents are generally well-drained soils. This soil type is mapped on the majority of the parcels and survey area.

Candlestick-Kron-Buriburi soils are very shallow to moderately deep, moderately steep to very steep, well drained soils underlain by sandstone, and are found in uplands. Candlestick-Kron-Buriburi soils are well drained and derived from hard fractured sandstone. This soil is mapped on the western edge of the survey area.

Urban land is mapped on the eastern section of the survey area including the developed lands of Bayshore Boulevard, the associated road shoulder, as well as a portion of the construction yard.

There are no serpentine, calcareous or sandy soils that could support special status plant species within the study area.

3.2 Species

Observed Species

During the April 2022 site visit, no special status wildlife or plant species were observed.

The plants and animals identified within the survey area are typical for species that utilize non-native dominant scrub, grassland, and woodland habitats near an urban setting. See Appendix 2 for a list of species observed in the survey area during biological surveys. One mammal species, the brush rabbit (*Sylvilagus bachmani*), was observed within the study area. Bird species observed by sight or sound during the site visit included red-tailed hawk (*Buteo jamaicensis*), California scrub-jay (*Aphelocoma californica*), common raven (*Corvus corax*), California towhee (*Melozone crissalis*), chestnut-backed chickadee (*Poecile rufescens*), white-crowned sparrow (*Zonotrichia leucophrys*), wrentit (*Chanea fasciata*), house finch (*Haemorhous mexicanus*), and cedar waxwing (*Bombycilla cedrorum*). Dozens of variable checkerspot (*Euphydryas chalcedona*) larvae, several pupae, and one adult variable checkerspot butterfly were observed within the study area. Two native bumblebee (*Bombus sp.*) were also observed.

Due to the low density of native species, special status species were not found and are not expected to occur within the survey area.

Special Status Wildlife Species Summary

No special status species were observed within the survey area or in areas directly or indirectly affected by the project. Table 3, below, shows all special status species that have been recorded in the San Francisco South and six surrounding 7.5' USGS topographic quadrangles (CNDDB 2022). Exclusively aquatic and/or marine species were not included in this table as the study area does not include any fresh or salt waterbodies or water sources. A determination on the potential for each species to occur in the survey area is also provided in Appendix B. Figure 4 shows the mapped locations of special status wildlife within three miles of the property.

Two special status wildlife species were identified as having a moderate potential to occur in the survey area based on habitat types and/or recorded observations near the study area. The Cooper's hawk (*Accipiter cooperii*) and northern harrier (*Circus cyaneus*) have moderate potential to forage on the site, though suitable nesting habitat is not present.

Nine wildlife species were identified as having a low potential for occurrence in the survey area. These include five mammal species, Townsend's big eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevillii*), pallid bat (*Antrozous pallidus*), hoary bat (*Lasiurus cinereus*), and fringed myotis (*Myotis thysanodes*), three bird species, white-tailed kite (*Elanus leucurus*), merlin (*Falco columbarius*), American peregrine falcon (*Falco peregrinus anatum)*, and one invertebrate species, the monarch butterfly (*Danaus plexippus*) has low potential for occurrence

The project site is located approximately a quarter mile north of designated Critical Habitat for the Bay Checkerspot butterfly (*Euphydryas editha bayensis*), (USFWS, 2021). There is no potential habitat on the project site to support this species.

The site visit and biological survey for the parcels and study area was conducted in April 2022, a suitable time for any butterfly host species with potential for presence to be visible during the field survey.

The presence of non-native dominant and disturbed habitats within the study area limits the potential for special status species to be found within the parcels and surrounding area.

Special Status Plant Species Summary

Five special status plant species were determined to have low potential to occur in the survey area. These species include: San Francisco gumplant (*Grindelia hirsutula* var. *maritima*), Diablo helianthella (*Helianthella castanea*), coast iris (*Iris longipetala),* Scouler's catchfly *(Silene scouleri ssp. scouleri),* and San Francisco campion ***(****Silene verecunda ssp. verecunda).*

A determination of no potential was given for one or more of the following reasons:

- The species has a perennial life form and was not observed within the study area during the site visits.
- The species is known to occur on San Bruno Mountain, but is associated with different soil types or plant communities than were recorded within the survey area.
- There is a recorded occurrence on San Bruno Mountain or nearby, but all records are historical (over 50 years old), and the species has not been recorded since.

Figure 5 shows the mapped locations of special status plants within three miles of the property. Each of these species were evaluated for their potential to occur within the survey area (Appendix B). The site visit and biological survey for the parcels and study area was conducted in April 2022, a suitable time for the many of the special status plant species with potential for presence to be visible during the field survey.

Definitions of Special Status Species

Appendix 1 provides definitions of the types of special status species that have federal, state or local protection and provides more information on the regulations that protect birds' nests.

Migratory Birds and Nesting Birds

Habitat suitable for nests of birds protected under the Migratory Bird Treaty Act does exist within the survey area. Shrub and woodland habitats within the survey area are appropriate for nesting birds, including corvids and raptors.
If any new disturbance of the site is to occur during the nesting bird season (Feb. 1 – August 31), a nesting bird survey is recommended prior to any disturbance to determine if there is any nesting bird activity within the survey area.

Roosting Bats

While certain bat species have potential to forage within the parcels and study area, these species do not have potential to roost within the parcels (though they could roost in the Eucalyptus trees within the study area, outside of the parcel boundaries). No maternity colonies or roost sites were found, or are expected to be found within the parcel boundaries.

Protected Trees

The City of Brisbane Municipal Code defines protected trees as "any California Bay (*Umbellularia californica*), Coast Live Oak (*Quercus agrifolia*), or California Buckeye (*Aesculus californica*) having a main stem or trunk which measures thirty (30) inches or greater in circumference at a height of twenty-four (24) inches above natural grade (City of Brisbane, 2022)." A circumference of 30 inches translates to approximately 9.5 inches in diameter.

The City of Brisbane Municipal Code further defines protected trees as: "Three (3) or more mature trees of any one or more non-invasive species that are proposed to be removed from the same property or from adjacent property under common ownership."

No mature trees or trees protected by species are present on the parcels surveyed. There are a number of non-native eucalyptus trees within the survey area adjacent to the property, but they will not be impacted by the proposed project. Appendix 1 provides further background on protected trees.

Table 3: Observed Species Table

Species Observed		
Scientific Name	**Common Name**	**Native**
Agapanthus sp.	Lily of the nile	No
Aira caryophyllea	Silver hair grass	No
Anthriscus caucalis	Bur-chervil	No
Avena barbata	Slender oat	No
Briza maxima	Rattlesnake grass	No
Briza minor	Little quaking grass	No
Bromus diandrus	Ripgut brome	No
Bromus hordeaceus	Soft chess	No
Cardamine oligosperma	Bitter cress	Yes
Carduus pycnocephalus	Italian thistle	No
Centranthus ruber	Red valerian	No
Claytonia perfoliata	Miner's lettuce	Yes
Dittrichia graveolens	Stinkwort	No
Dryopteris arguta	California wood fern	Yes
Ehrharta erecta	Panic veldtgrass	No
Epilobium brachycarpum	Willow herb	Yes

Epilobium ciliatum	Slender willow herb	Yes
Eschscholzia californica	California poppy	Yes
Festuca bromoides	Brome fescue	No
Foeniculum vulgare	Fennel	No
Fumaria sp.	Fumitory	No
Genista monspessulana	French broom	No
Geranium dissectum	Cutleaf geranium	No
Helminthotheca echioides	Prickly ox-tongue	No
Heteromeles arbutifolia	Toyon	Yes
Hirschfeldia incana	Summer mustard	No
Medicago polymorpha	Bur clover	No
Oxalis pes-caprae	Bermuda buttercup	No
Pentagramma triangularis	Goldenback fern	Yes
Polypodium californicum	California polypody	Yes
Pteridium aquilinum	Bracken fern	Yes
Prunus cerasifera	Cherry plum	No
Rubus armeniacus	Himalayan blackberry	No
Scrophularia californica	California figwort	Yes
Scabiosa atropurpurea	Mourningbride	No
Senecio glomeratus	Cutleaf burnweed	No
Solanum douglasii	Douglas' nightshade	Yes
Sonchus oleraceus	Common sow thistle	No
Stellaria media	Chickweed	No
Toxicodendron diversilobum	Poison oak	Yes
Vicia sativa	Spring vetch	No
ANIMALS		
Birds		
Aphelocoma californica	California scrub-jay	Yes
Bombycilla cedrorum	Cedar waxwing	Yes
Buteo jamaicensis	Red-tailed hawk	Yes
Chanea fasciata	Wrentit	Yes
Corvus corvax	Common raven	Yes
Haemorhous mexicanus	House finch	Yes
Melozone crissalis	California towhee	Yes
Poecile rufescens	Chestnut-backed chickadee	Yes
Zonotrichia leucophrys	White-crowned sparrow	Yes
Mammals		
Sylvilagus bachmani	Brush rabbit	Yes
Insects		
Euphydryas chalcedona	Variable checkerspot	Yes
Bombus sp.	Bumblebee	Yes

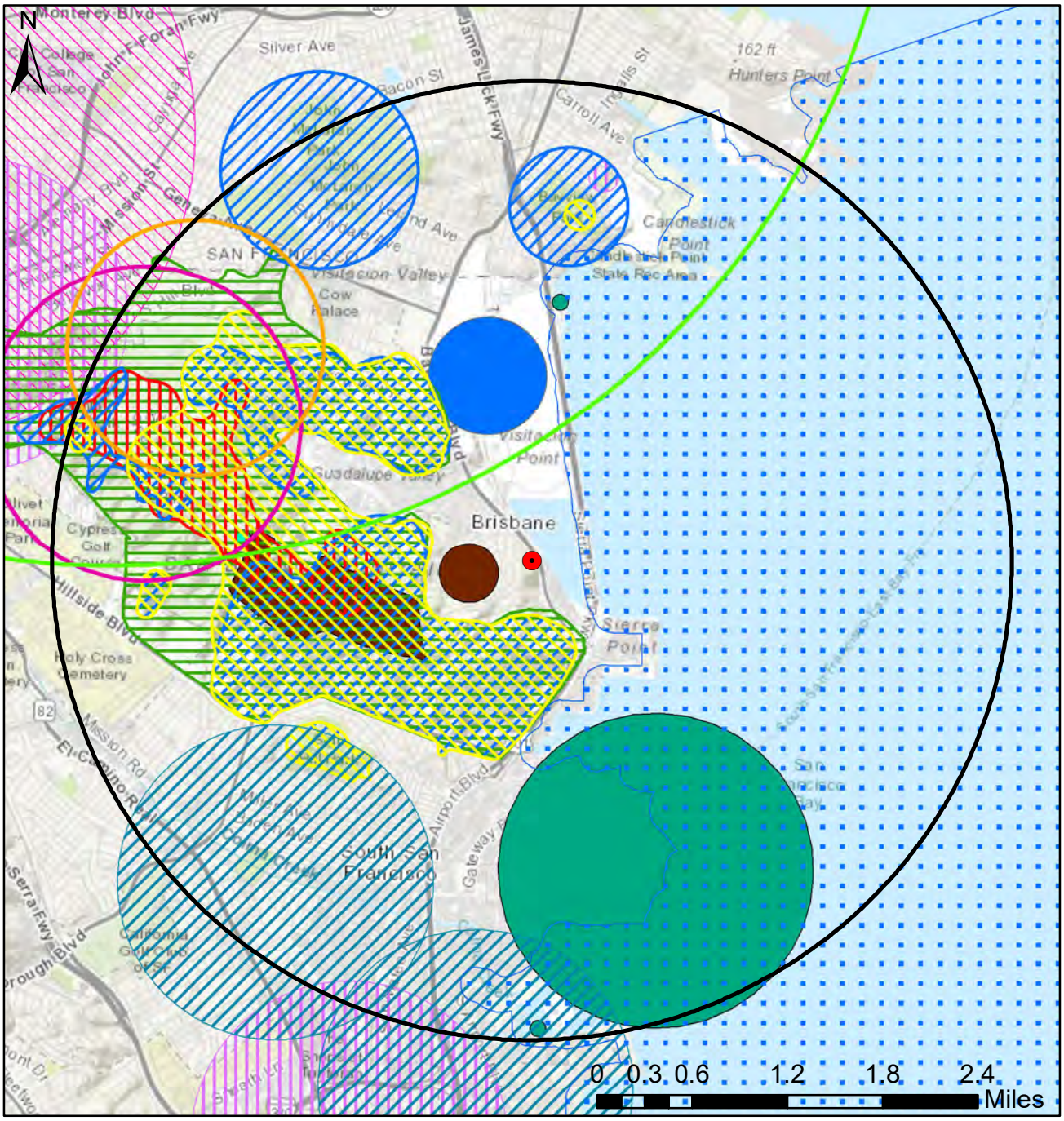


Figure 4: CNDDB Occurrence Map (Animals)

3708 Bayshore Blvd, Brisbane, CA

Source: CNDDB, 5/2022

- Project Location
- 3 mile buffer

CNDDB Occurrence Records

- Alameda song sparrow
- American peregrine falcon*
- Bay checkerspot butterfly
- California Ridgway's rail
- Mission blue butterfly
- Pacific walker
- San Bruno elfin butterfly
- San Francisco forktail damselfly
- San Francisco gartersnake*
- Stage's dufourine bee
- callippe silverspot butterfly
- hoary bat
- incredible harvestman
- longfin smelt
- obscure bumble bee
- sandy beach tiger beetle
- western bumble bee

*Species with protected records not shown on map

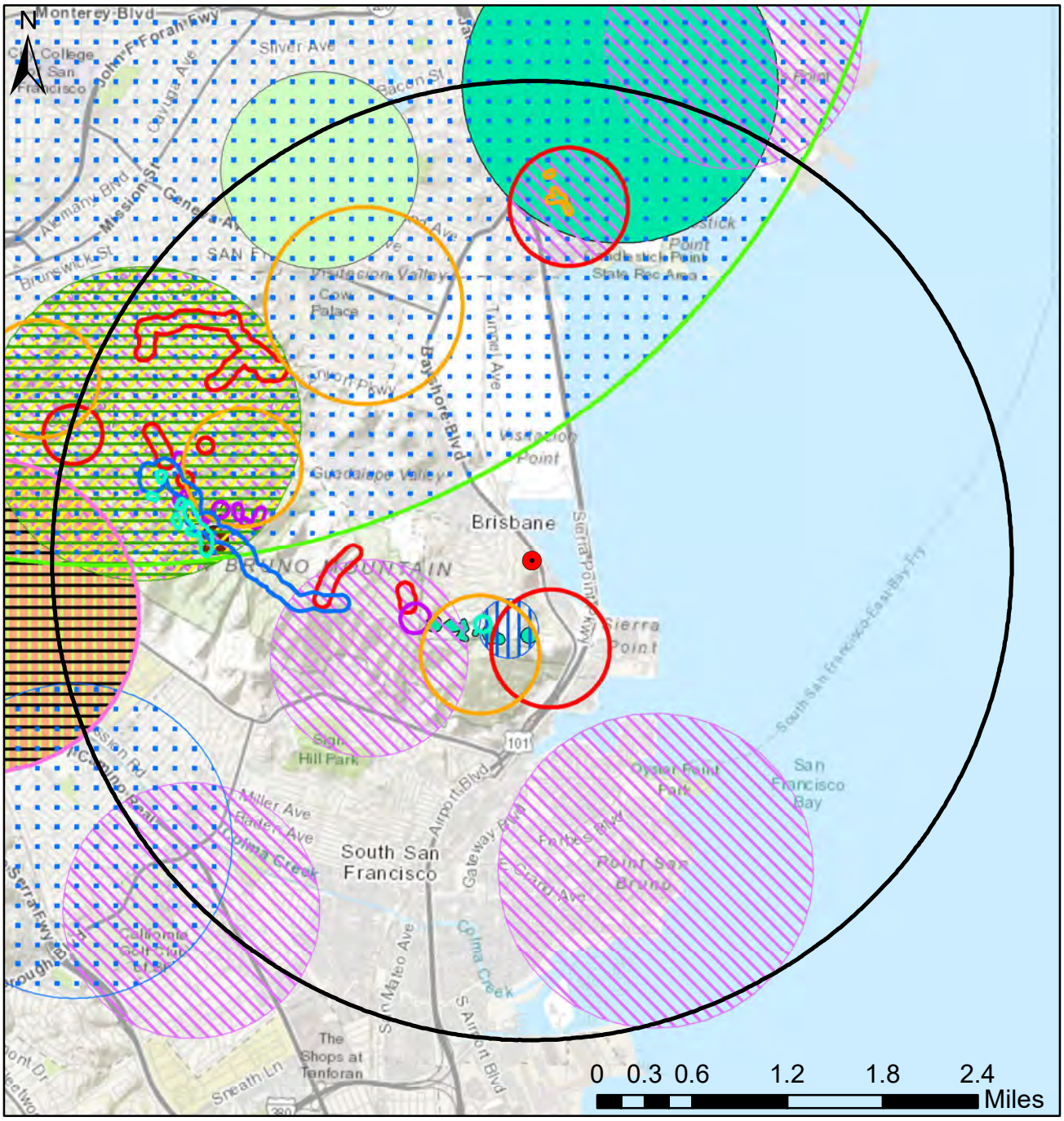


Figure 5: CNDDB Occurrence Map (Plants)

3708 Bayshore Blvd, Brisbane, CA

Source: CNDDB, 5/2022

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

- Project Location
- 3 mile buffer

CNDDB Occurrences

- Choris' popcornflower
- Diablo helianthella
- Kellogg's horkelia
- Montara manzanita
- Pacific manzanita
- Point Reyes horkelia
- San Bruno Mountain manzanita
- San Francisco campion
- San Francisco collinsia
- San Francisco gumplant
- San Francisco owl's-clover
- Scouler's catchfly
- beach layia
- bent-flowered fiddleneck
- bristly sedge
- coastal triquetrella
- congested-headed hayfield tarplant
- dark-eyed gilia
- robust spineflower
- rose leptosiphon
- short-leaved evax
- two-fork clover
- water star-grass
- white-rayed pentachaeta

Special Status Wildlife Species Accounts

Cooper's Hawk (*Accipiter cooperii*)
The Cooper's hawk is included on the Special Animal List maintained by the California Department of Fish and Wildlife and is included on the Department's Watch List (CDFW, 2020). Their range extends across the contiguous United States into southern Canada and Mexico and is distributed throughout most of California (Curtis et al., 2006). The species inhabits dense stands of oak woodlands, riparian deciduous forests, or other forest habitats often near water and suburban areas (Baicich & Harrison, 2005). This woodland raptor hunts in broken woodlands, along forest edges and suburban areas for medium-sized birds and mammals (Curtis et al., 2006). Typical nest site selection is characterized by mature trees with significant canopy cover; although, species will nest in suburban areas in a variety of trees. Breeding begins in April; the Cooper's hawk is a single-brooded species (Baicich & Harrison, 2005).

While nesting habitat for this species within the study area is marginal, there is appropriate foraging habitat present. There is moderate potential for this species to be found within the study area.

Northern Harrier (*Circus cyaneus*)
The northern harrier is designated as a California Species of Special Concern by CDFW (CDFW 2022). It inhabits both freshwater and saltwater marshes and adjacent upland grasslands and nests on the ground in tall grasses in grasslands and meadows. Breeding begins in March with a single brood produced per nesting season (Baicich & Harrison 2005).

This species has moderate potential to be found in the survey area. Low quality foraging habitat is present within the study area, which is adjacent to the Brisbane lagoon. No nesting habitat for this species is present within the study area.

Pallid bat (*Antrozus pallidus*)
The Pallid bat is a California Species of Special Concern (CDFW, 2022), and a U.S. Forest Service and Bureau of Land Management Sensitive Species. The pallid bat is found in a variety of habitats where suitable roosting sites are available, including oak savanna, grassland, riparian areas and wetlands, orchards, vineyards, and irrigated cropland (WBWG, 2022). A very social bat, the pallid bat occupies a wide variety of habitats throughout California, including grasslands, shrublands, woodlands, and forests. The species is most common in open, dry areas with rocky areas necessary for roosting. It feeds on a variety of insects and arachnids.

The pallid bat has not been observed in the region in several decades. There is low potential for pallid bats to forage within the study area. Roosting habitat is not present.

Hoary bat (*Lasiurus cinereus*)
Hoary bat is considered a bat of medium priority by the Western Bat Working Group (WBWG, 2022). Hoary bats are ubiquitous throughout California. They are solitary foliage roosters that will use evergreen and deciduous trees near the ends of the branches (WBWG, 2022). They may

forage in small to large groups and primarily feed on moths; however, they will eat a variety of insects if available.

There are limited roosting sites and foraging habitat for hoary bat in the survey area. There is low potential for hoary to be present on the parcel. This species does not breed in the San Francisco Bay area.

Fringed myotis (*Myotis thysanodes*)
Fringed myotis is included on the Special Animal List maintained by the California Department of Fish and Wildlife and is included on the Department's Watch list (CDFW, 2022) and is considered a bat of high priority by the Western Bat Group (WBWG, 2022). Fringed myotis range across the western United States, north into British Columbia, Canada and south to Chiapas, Mexico. It is found in a wide variety of habitats from desert scrub, to mesic coniferous forest, grasslands and sage-grass steppe (WBWG, 2021). Fringed myotis roost in building crevices, underground mines, rocks, cliff faces, and bridges, as well in large tree snags. They primarily feed on moths and beetles, but will glean prey such as spiders, harvestmen, and crickets as well.

The survey area provides appropriate foraging habitat for the fringed myotis. There are no potential roosting sites for this species within the survey area. There is low potential for fringed myotis to be found on site.

Townsend's big-eared bat (*Corynorhinus townsendii*)
The Townsend's big-eared bat is listed as high priority by the Western Bat Working Group (WBWG, 2022). It is found throughout California in a wide variety of habitats, although it is most common in mesic sites. The Townsend's big-eared bat is a cave rooster and moth specialist. It inhabits caves and mines, but may also use bridges, buildings, rock crevices and tree hollows in coastal lowlands, cultivated valleys and nearby hills characterized by mixed vegetation throughout California below 3,300 meters. It exhibits high site fidelity and is highly sensitive to disturbance. This species forages along edge habitats near water and may travel long distances during foraging bouts. It is a moth specialist with over 90% of its diet composed of lepidopterans.

The survey area provides marginal foraging habitat for the Townsend's big-eared bat. There are no potential roosting sites for this species within the survey area. It has a low potential to be found within the study area.

Western red bat (*Lasiurus blossevillii*)
The western red bat is listed as high priority by the Western Bat Working Group (WBWG, 2022). It is found throughout California, except the Great Basin region. Primarily a riparian obligate species, it is easily distinguished from other bats by its red fur. Roosting typically occurs individually in dense clumps of tree foliage in riparian areas, especially willows, cottonwoods and sycamores, and within orchards and suburban areas in trees and shrubs. Roosts are often

hidden from view and only access from below). Primarily a moth specialist, but will forage for other insects as well.

There is appropriate roosting and foraging habitat for the western red bat within the study area. It has low potential to be found on the site as there are no riparian habitats within the immediate area.

White-tailed Kite (*Elanus leucurus*)
The white-tailed kite nesting sites are designated as fully protected by §3511 of the California Fish and Game Code. This species receives additional protection under the Migratory Bird Treaty Act (MBTA) and Migratory Bird Treaty Reform Act (MBTRA). White-tailed kites inhabit open grasslands and savannahs. They breed in a variety of habitats including grasslands, cultivated fields, oak woodlands and suburban areas where prey is abundant. Nests are typically built in trees near a water source and may occur in suburban areas with adjacent open areas with abundant prey. Breeding occurs between February and July, and may be double-brooded in some years (Baicich and Harrison 2005). During the non-breeding season, white-tailed kites may hang out communally at roost sites. Species occurs throughout California west of the Sierra Nevada and is more commonly seen in the Central Valley and among the foothills. White-tailed kites prey on small mammals, reptiles and occasionally, birds. This species has moderate potential to be found on site.

The survey area contains marginal foraging habitat for this species. It has low potential to occur on site.

Merlin (*Falco columbarius*)
The merlin is included on the Special Animal List maintained by the California Department of Fish and Wildlife and is included on the Department's Watch List (CDFW 2022). Merlins winter throughout California, breeds in forests and prairies in northern states, Canada and Alaska (Baicich & Harrison 2005, Warkentin et al. 2005). Wintering habitat included open forests, grasslands, agricultural fields, mud flats and urban areas. Prey consists predominantly of small to medium-sized birds, but also known to take dragonflies (Warkentin et al. 2005). Breeding begins in May and is single-brooded (Baicich & Harrison 2005).

Limited foraging habitat exists within the study area. This species is not known to nest in California. The merlin has low potential to be found within the study area.

American Peregrine Falcon (*Falco peregrinus anatum*)
The American peregrine falcon (nesting) is a federally recovered and was delisted in 1999. It is also state listed as Endangered, is a California fully protected species and included on the USFWS Birds of Conservation Concern list (2002). The American peregrine falcon is also protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) and Migratory Bird Treaty Reform Act (Division E, Title I, Section 143 of the Consolidated Appropriations Act, 2005, PL 108–447; MBTRA). Peregrine falcons are a year-round resident in California and are most common along the coast. They inhabit a variety of habitats ranging from wetland, coastal

shorelines and islands to deserts, forests and urban areas (White et al. 2002). American peregrine falcons nest on cliffs, rocky outcrops, bare ground and man-made structures such as bridges, buildings and other tall, prominent structures (Baicich and Harrison 2005). Breeding begins from mid-March to mid-May depending on latitude, is single-brooded and exhibits high site fidelity (Baicich and Harrison 2005). They have a variable diet and feed primarily on birds; however, they may also consume many small mammals including bats and various rodents.

While suitable breeding habitat for this species is not present within the study area, this species may use the study area for foraging. The American peregrine falcon has low potential to be found within the study area.

Monarch butterfly (*Danaus plexippus*)
Monarch butterflies require wind protected tree groves along the California coast for nectaring, migratory roosting, and wintering sites. Roosting sites are also located in isolated locations bordering San Francisco Bay. Blue gum eucalyptus is commonly used by monarch butterflies as nectaring and roosting sites. Monterey pine (*Pinus radiata*) and Monterey cypress (*Cupressus macrocarpa*) groves may also provide roosting habitat for monarch butterflies. They prefer to nectar on *Asclepias* flowers as adults; some species within the aster family (*Asteraceae*) are also used.

There is marginal roosting habitat within the eucalyptus trees in the study area. Coyote brush could be used as a nectar plant.

Mission Blue Butterfly (*Icaricia icarioides missionensis*)
The mission blue butterfly is federally listed as endangered (CDFW, 2022; USFWS, 1999). It is a small butterfly measuring 1 to 1.3 inches across. The larval host plants include three species of lupine (*Lupinus albifrons* var. *collinus*, *L. formosus* var. *formosus* and *L. variicolor*). Adult nectar plants include California Phacelia (*Phacelia californica*), bluedicks (*Dichelostemma capitatum*), golden aster (*Heterotheca villosa*), seaside buckwheat (*Eriogonum latifolium*), and a variety of native and nonnative thistles (TRA, 1982). Mission blue butterflies are found in grassland habitats and utilize roadcuts and rocky outcrops with good sun exposure. Mission blue butterflies are relatively weak flyers and have been recorded to move approximately 0.25 miles between habitat patches. The flight season occurs from March through July. Remaining populations are restricted to the Marin headlands in Marin County, Twin Peaks in San Francisco County, and Milagra Ridge, San Bruno Mountain and Crystal Springs Watershed in San Mateo County.

No host or nectar plants were detected in the survey area during the site visit. This species has no potential to occur within the parcels.

Callippe Silverspot Butterfly (*Speyeria callippe callippe*)
The Callippe silverspot butterfly, also known as the callippe fritillary, is federally listed as endangered (CDFW, 2022). It is a medium-sized butterfly with a wingspan of 2 inches in the Nymphalidae or brush-footed family. The dorsal surface of the wings is brown with black spots

and lines. The Callippe silverspot is found in grasslands in the vicinity of its larval host plant, Johnny-jump-up (*Viola pedunculata*). Hilltops provide important habitat for mate selection. Adult nectar plants include nonnative species such as Italian thistle, pin-cushion plant (*Scabiosa purpurea*), and native species such as California buckeye (*Aesculus californica*). Callippe silverspots are relatively strong flyers that range as far as 0.75 miles between habitat patches (TRA, 1982). The adult flight period occurs from May to July.

No host or nectar plants were detected in the survey area during the site visit. This species has no potential to occur within the parcels.

Bay Checkerspot Butterfly (*Euphydryas editha bayensis*)
The bay checkerspot butterfly is federally listed as threatened (CDFW 2022, USFWS 1999) and is designated as critically imperiled by the Xerces Society's Red List of Pollinator Insects of North America (Shepherd et al. 2005). It is a medium-sized butterfly, *i.e*. 2-inch wingspan, with a brown base color and distinct red, yellow and white checkered pattern forming rows separated by black bands. The bay checkerspot is a member of the Nymphalidae or brush-footed family. It is endemic to California and restricted to serpentinitic (or serpentine-derived) soils and similar habitats. Its primary larval host plant is the dwarf plantain (*Plantago erecta*) (Steiner 1990). Secondary host plants include the Indian paintbrush (*Castilleja affinis* ssp. *affinis*) and purple owl's clover (*Castilleja exserta* ssp. *exserta*). The adult flight life stage lasts approximately 10 days and occurs between February and May. Eggs are laid in small masses numbering up to 250, which are deposited at the base *P. erecta* or *C. affinis* (Black and Vaughan 2005). Eggs hatch in approximately ten days and feed on the host plant for a few weeks prior to entering diapause in nearby soil cracks or under rocks until the following spring (Black and Vaughan 2005). Current populations are restricted to five locales in San Mateo (Edgewood County Park & Jasper Ridge) and Santa Clara (Coyote Ridge comprising Kirby, Metcalf, San Felipe and Silver Creek Hills) counties (USFWS 2001b).

Critical Habitat for this species includes San Bruno Mountain. In 2017, this species was reintroduced to San Bruno Mountain. No host or nectar plants were detected in the survey area during the site visit. This species has no potential to occur within the parcels or study area.

Special Status Plants Species Accounts

The following special status plant species accounts are informed largely by the 2015 Rare, Threatened and Endangered Plant Survey: San Bruno Mountain by L. Naumovich, and C. Niederer.

San Francisco gumplant (*Grindelia hirsutula* var. *maritima*) CNPS RPR 3.2, S1, G5T1Q, locally significant rank A1. San Francisco gumplant is a perennial herb belonging to the sunflower family (Asteraceae), endemically restricted to north and central coastal bioregions at elevations 15-400 meters. San Francisco is the type locality for *Grindelia hirsutula*. Plants can grow 8-60" tall (0.2-1.5 m) with the hemispheric and gummy inflorescence and yellow corolla typical of the

genus, sometimes a subshrub. Note that identification is difficult for this taxon currently under taxonomic review. Best diagnostic feature for this species as it differs from *Grindelia camporum* are a notable reddish stem color along entire stem, and lack of both the shiny appearance to leaves and the spiny, glabrous inflorescence head with reflexed phyllaries as are typical of *G. camporum*. Also, best features to discern this species from *G. hirsutula* are erect phyllaries, large involucres, and fruit is generally golden or greyish and deeply ridged. Preferred habitats include coastal bluff, coastal bluff scrub and sea bluffs, but also grasslands and sandy, clay, or serpentine slopes. Blooming period is Jun-Sep, but typically starts to flower in June, which is an important characteristic for identification. Statewide, *G. hirsutula* tends to flower earlier than *G. camporum* at a given location; however, this detail needs review for local accuracy, because the opposite sequence may occur locally to San Bruno Mountain or just for this taxon. This species is threatened by coastal development and non-native plants.

San Francisco gumplant is present in nearby San Bruno Mountain and based on habitat requirements has low potential to be present within the survey area.

Diablo helianthella (*Helianthella castanea*) CNPS RPR 1B.2, G2, S2, locally significant rank A1. Diablo helianthella is a perennial herb in the sunflower family (Asteraceae). Endemic to the northern central coast and northern San Francisco Bay Area bioregions, this taxon can be found in a variety of preferred habitat types at elevations of 25- 1150 meters but is rare and restricted to the East Bay. The geographic exception is this one locally extant occurrence on San Bruno Mountain. Here, its preferred habitat is rocky soils on north-facing slopes or otherwise shady areas within or nearby ecotones between grassland and coastal scrub, chaparral, or oak woodland. Plants grow 3-20” (0.1-0.5 m) with a taproot. Often difficult to distinguish individuals from dense clumps of vegetation. Also, often difficult to distinguish from *Helianthella californica* and *Wyethia* sp. Best discernable features are this taxon’s phyllaries of irregular lengths especially at peak bloom, and phyllaries that extend beyond the corolla have a leaf-like appearance. Later, glabrous fruits appear flattened with thick central bulge or ridge, thin edges, and a notch at the apex. Blooming period is Mar-Jun locally. Threatened by urbanization, grazing, and fire suppression, and possibly threatened by road maintenance, recreational activities, and non-native plants.

Diablo helianthella is present in nearby San Bruno Mountain and based on habitat requirements has low potential to be present within the survey area.

Scouler’s catchfly (*Silene scouleri* ssp. *scouleri*) CNPS RPR 2B.2, S2S3, G5T5, locally significant rank A2. Scouler’s catchfly, also known as simple campion, is a perennial herb in the pink family (Caryophyllaceae). It is endemic and rare in California’s coastal range and San Francisco Bay Area bioregions, also found elsewhere and limited to Western North America. Plants grow 5-27 inches (15-70 cm) tall with a distinctive puberulent (wooly) stem. Corolla color varies from white to rose, and the calyx contains 10 veins that are approximately the same width throughout. Preferred habitats include northern coastal scrub, valley and foothill grassland, rocky slopes and coastal bluffs less than 300 meters in elevation. Blooming period can range

from Mar- Sep, but generally blooms in the summer months. Potentially threatened by habitat loss, foot traffic, and recreational activities; possibly threatened by herbivory.

Scouler's catchfly has been previously documented on San Bruno Mountain, was observed in the survey area during 2018 surveys and is present.

San Francisco campion (*Silene verecunda* ssp. *verecunda*) CNPS RPR 1B.2, S1, G5T1, locally significant rank A1. San Francisco campion is a perennial herb in the pink family (Caryophyllaceae), endemically restricted to northern central coast and northern San Francisco Bay Area bioregions at elevations 30-645 meters. San Francisco is the type locality *for Silene verecunda*. Plants can grow 3-22" (0.1-0.6) in height, stem may or may not branch or be glandular, and corolla color varies from white to lavender. Note that identification is difficult for this taxon currently under taxonomic review. Usual blooming period is Mar-Jun and can extend as far as Feb-Aug but typically blooms in summer. At San Bruno Mountain this taxon was found flowering in March and April, possibly an important characteristic versus the larger *Silene scouleri*. Preferred habitat includes chaparral, coastal bluff scrub, coastal prairie, coastal scrub, valley and foothill grassland, mudstone or shale, and sandy or ultramafic soils. This species is threatened by development, recreational activities, and non-native plants.

San Francisco campion is present in nearby San Bruno Mountain and based on habitat requirements has low potential to be present within the survey area.

Coast iris (*Iris longipetala*) CNPS RPR 4.2, S3, G3, locally significant rank B. Coast iris is a perennial rhizomatous monocot herb in the Iris family (Iridaceae) and endemic to the bioregions of the North and Central Coast and San Francisco Bay Area at elevations 0-600 meters. Plants grow 12-24" (30-60cm) tall with funnel-shaped corollas that are blue-lilac-purple in color with dark veins. Blooming period is Mar-May. Best distinguishing characteristics of this taxon are light green leaves that are similar on both sides and generally lacking any difference in hue found in co-occurring *I. douglasiana*. Preferred habitat includes coastal prairie, lower montane coniferous/ mixed evergreen (coastal) forest, and meadows and seeps. Typically occurs in wetter areas although can occur in xeric sites because deep rhizomes can access subsurface water. Coast iris is considered locally abundant on San Bruno Mountain Considered rare overall although many collections are old thus generally more field surveys are recommended, and it may hybridize with *I. missouriensis*. This species is threatened by development.

Coast iris is present in nearby San Bruno Mountain and based on habitat requirements has low potential to be present within the survey area.

3.3 Wildlife Movement and Connectivity

Wildlife Movement or Connectivity features, or evidence thereof, were not found within the survey area(s).

Wildlife corridors are important for conservation of wildlife in the region. Linkages between habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement between populations located in discrete areas and populations located within larger habitat areas. Even where patches of pristine habitat are fragmented, wildlife movement between populations is facilitated through habitat linkages, migration corridors and movement corridors. Wildlife movement includes migration (i.e., usually one direction per season), inter-population movement (i.e., long-term genetic exchange) and small travel pathways (i.e., daily movement within an animal's home range).

The property is situated within an urban-disturbed wildland zone adjacent to existing development along Bayshore Boulevard to the east and limited open space to the north, south, and west. There are likely common and opportunistic wildlife species that are adapted to this urban interface and may be present in the area. These species include raccoon, striped skunk, coyote, eastern fox squirrel, as well as various bat and bird species.

The planned project would not involve any impacts to wildlife habitat within the parcels and is not expected to adversely affect any existing regular movement of wildlife within the parcels. The proposed project will affect the area just north of the parcels via the expansion of the construction lot. This may result in a less than significant loss of habitat within the north portion of the study area and could affect the movement of wildlife species located in the immediate area.

Section 4: Recommended Impact Assessment and Conditions of Approval

4.1 Sufficiency of Biological Data

Surveys for this biological assessment yielded detailed information about natural resources potentially present in the survey area. This documentation revealed that several special status species have low to moderate potential to occur within the survey area. No sensitive natural communities or critical habitats are present within the survey area.

4.2 Impacts and Conditions of Approval

There is no currently proposed project for the parcels being evaluated in this Biological Assessment Report. There is a proposed project for the adjacent parcel to the north being implemented by the same client, MK Pipelines, Inc. No significant impacts to special-status plants and animals, and/or sensitive natural communities are expected within the project parcels, as discussed below.

Conditions of Approval described below (CA-1) include recommendations to avoid impacts to nesting birds including raptors.

Special Status Raptors and Nesting Birds

Raptors

There is low to moderate potential for special status raptors to forage on site such as Cooper's hawk, northern harrier, and white-tailed kite.

Project implementation would not result in any impacts to potential foraging habitat for special status raptor species within the parcels.

Significance Finding – Project Impacts: No Impact.
Significance Finding – Cumulative Impacts: No Impact.

Nesting Birds

Suitable habitat for nesting birds exists within the project site and survey area. There is potential for birds protected by the federal Migratory Bird Treaty Act to nest within the eucalyptus trees and French broom scrub. Project implementation would not result in any impacts to potential foraging or nesting habitat for native bird species protected by the Migratory Bird Treaty Act and CA Fish and Game Code. Since the MK Pipelines, Inc construction yard is currently used by the company for equipment staging and as an office site, anticipated construction in the adjacent lot is unlikely to result in any additional disturbance to nesting

birds within the parcels being evaluated. Should impacts to nesting habitat become necessary, the measures outlined in CA-1 should be implemented.

Significance Finding – Project Impacts: Less than Significant
Significance Finding – Cumulative Impacts: No Impact

Conditions of Approval 1 (CA-1): Protection of Nesting Birds, Including Raptors

CA-1a: Avoidance of Nesting Birds including Raptors. If feasible, vegetation removal and ground disturbance should be conducted outside of the nesting bird season which runs from approximately February 1 to August 31.

CA-1b: Pre-Construction Nesting Bird Surveys including Raptors. If removal of vegetation is to occur during the nesting season (February 1 to August 31), it is recommended that surveys for nesting birds (including special status raptors) be conducted prior to any vegetation removal by a qualified biologist. Surveys should be conducted no more than one week (seven days) prior to vegetation removal or ground disturbance. If active nests are found, vegetation removal should only be conducted after the young have left the nest and the nest is no longer considered active (i.e., in use).

CA-1c: Implementation of Nesting Bird Buffer Zones. If active nests are found within the survey area, suitable buffer zones should be established in consultation with CDFW to ensure nesting birds are not impacted by project activities. A buffer zone of 250' is recommended for raptors, and a buffer of 100' is recommended for passerines and other nesting birds. Buffer zones should be kept in place until nests are determined inactive by a qualified biologist.

Special Status Plants

Significance Finding – Project Impacts: No Impact
Significance Finding – Cumulative Impacts: No Impact

No special status plant species were observed on site or are expected to occur. The project will not cause project-specific or cumulative impacts to special status plant species.

Ecological Communities

Sensitive Plant Communities

Significance Finding – Project Impacts: No Impact
Significance Finding – Cumulative Impacts: No Impact

No sensitive plant communities were observed on site or are expected to occur. The project will not cause project-specific or cumulative impacts to special status plant species.

Waters and Wetlands

Significance Finding – Project Impacts: No Impact
Significance Finding – Cumulative Impacts: No Impact

No state or federal jurisdictional waters or wetlands were observed on site. The project will not cause project-specific or cumulative impacts to waters or wetlands.

Environmentally Sensitive Habitat Areas

Significance Finding – Project Impacts: No Impact
Significance Finding – Cumulative Impacts: No Impact

No Environmentally Sensitive Habitat Areas were observed on site or are expected to occur. The project will not cause project-specific or cumulative impacts to Environmentally Sensitive Habitat Areas.

Habitat Connectivity (Migration Corridors)

Significance Finding – Project Impacts: No Impact
Significance Finding – Cumulative Impacts: No Impact

No migration corridors were observed on site or are expected to occur. The project will not cause project-specific or cumulative impacts to Habitat Connectivity (Migration Corridors).

Protected Trees

Significance Finding – Project Impacts: No Impact
Significance Finding – Cumulative Impacts: No Impact.

No protected trees were observed on site and no trees are expected to be removed as part of the proposed project. If a protected tree as defined by the City of Brisbane Tree Ordinance is to be removed, the applicant must apply for a tree removal permit from the City. Replacement plantings may be required at the discretion of the city.

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Section 6. Photos

Location	
3708 Bayshore Blvd	
Map Key	
P1	
View Direction	
Northeast and downslope.	
Description	
View of parcels from south edge. California figwort, Himalayan blackberry, French broom, and toyon are visible on the hillside. The construction yard and Bayshore Blvd. are in the mid-ground.	

Location	
3708 Bayshore Blvd	
Map Key	
P1	
View Direction	
Northwest	
Description	
View of vegetation on the steep western slopes of the parcel, including Himalayan blackberry, California figwort, French broom, and toyon.	

Location	
3708 Bayshore Blvd	
Map Key	
P2	
View Direction	
West	
Description	
View of the office building and supplies on the construction lot, as well as the steep hillside in the background.	

Location	
3708 Bayshore Blvd	
Map Key	
P2	
View Direction	
North	
Description	
View of the office building on the construction lot, and the paved asphalt parking area.	

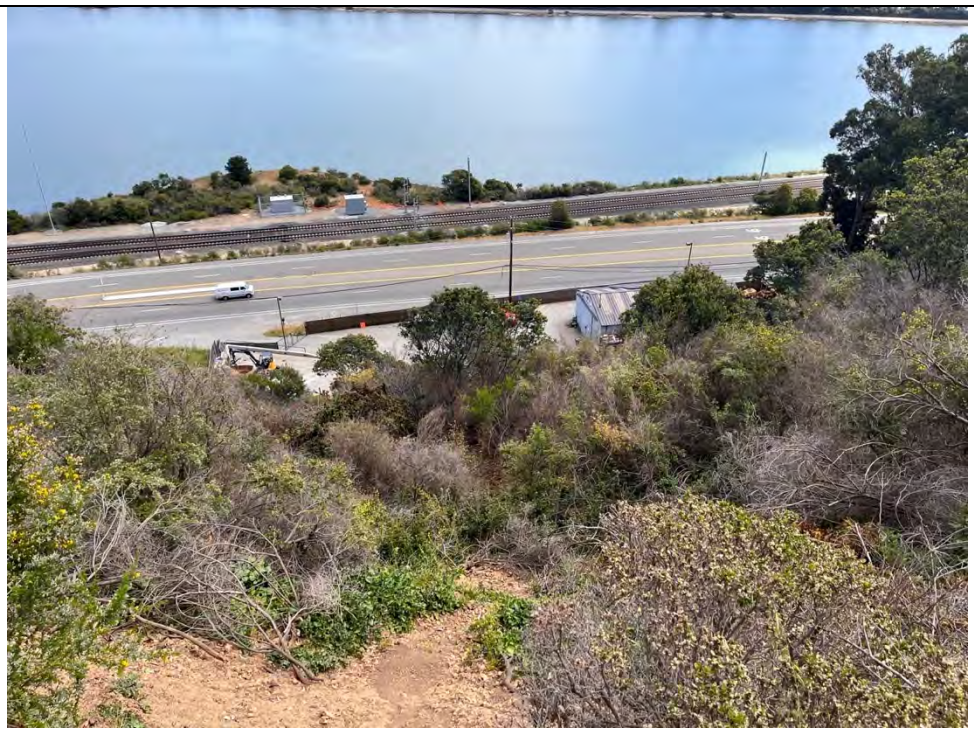
Location	
3708 Bayshore Blvd	
Map Key	
P3	
View Direction	
South southeast	
Description	
View of the MK Pipelines, Inc construction lot on the right, and the non-native oat grassland and Bayshore Blvd on the left.	

Location	
3708 Bayshore Blvd	
Map Key	
P3	
View Direction	
Southwest	
Description	
View of the driveway to the parcels/ the MK Pipelines, Inc construction lot in the foreground, with the steep vegetated slope in the background.	

Location
3708 Bayshore Blvd
Map Key
P4
View Direction
South southeast
Description
View of the MK Pipelines, Inc construction lot, and office building, with the vegetated slope in the background, including the eucalyptus grove located within the study area but outside the parcels.

Location
3708 Bayshore Blvd
Map Key
P4
View Direction
West southwest
Description
View of the construction lot, storage materials, and the vegetated slope on the western portion of the parcels. French broom is the dominant vegetation.

Location	
3708 Bayshore Blvd	
Map Key	
P4	
View Direction	
West	
Description	
View of construction lot, and vegetated slope on the west and northwest portions of the parcels and study area.	

Location	
3708 Bayshore Blvd	
Map Key	
P5	
View Direction	
East and downslope.	
Description	
View of the western portion of the study area and site, taken from upslope of the parcels. The Brisbane lagoon and Bayshore Blvd are visible in the background of the photo.	

Location	
3708 Bayshore Blvd	
Map Key	
P5	
View Direction	
Southeast	
Description	
View of the southwestern portion of the study area and site, taken from upslope of the parcels. The Brisbane lagoon and Bayshore Blvd are visible in the background of the photo. Visible vegetation include toyon, coyote brush and French broom.	

P-designation refers to Photopoint locations illustrated on Figure 3. Plant Communities Map.

Appendix A

Summary of Biological Resource Regulations

Sensitive Status Species
Regulations
Migratory Bird Regulations
Plant Community Regulations
Waters and Wetlands Regulations
San Bruno Mountain Habitat Conservation Plan
City of Brisbane General Plan
City of Brisbane Municipal Code

Sensitive Status Species Regulations

Federally Protected Species

San Mateo County is home to several federally listed endangered and threatened plant and wildlife species. The
U.S. Fish and Wildlife Service (USFWS) regulates the protection of federally listed endangered and threatened plant and wildlife species.

FE (Federally Endangered): A species that is in danger of extinction throughout all or a significant portion of its range.

FT (Federally Threatened): A species that is likely to become endangered in the foreseeable future.

FC (Federal Candidate): A species for which USFWS has sufficient information on its biological status and threats to propose it as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

FSC (Federal Species of Concern): A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "Category-2 Candidate" species.

The USFWS requires permits for the “take” of any federally listed endangered or threatened species. “Take” is defined by the USFWS as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct; may include significant habitat modification or degradation if it kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.”

The Endangered Species Act (ESA) does not provide statutory protection for candidate species or species of concern, but USFWS encourages conservation efforts to protect these species. USFWS can set up voluntary Candidate Conservation Agreements and Assurances, which provide non-Federal landowners (public and private) with the assurance that if they implement various conservation activities to protect a given candidate species, they will not be subject to additional restrictions if the species becomes listed under the ESA.

State Protected Species

The California Department of Fish and Wildlife (CDFW) regulates the protection of endangered, threatened, and fully protected species listed under the California Endangered Species Act. Some species may be jointly listed under the State and Federal Endangered Species Acts.

SE (California Endangered): A native species or subspecies which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST (California Threatened): A native species or subspecies that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as "rare" on or before January 1, 1985, is a "threatened species."

SFP (California Fully Protected Species): This designation originated from the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians, reptiles, and birds. Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

SR (California Rare): A species, subspecies, or variety of plant is rare under the Native Plant Protection Act when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. Animals are no longer listed as rare; all animals listed as rare before 1985 have been listed as threatened.

SSC (California Species of Special Concern): Animals that are not listed under the California Endangered Species Act, but which nonetheless 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist.

The CDFW requires permits for the “take” of any State-listed endangered or threatened species. Section 2080 of the Fish and Game Code prohibits "take" of any species that the California Fish and Game Commission determines to be endangered or threatened. “Take” is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

The California Native Plant Protection Act protects endangered and rare plants of California. Section 1908, which regulates plants listed under this act, states: “no person shall import into this state, or take, possess, or sell within this state, except as incident to the possession or sale of the real property on which the plant is growing, any native plant, or any part or product thereof, that the commission determines to be an endangered native plant or rare native plant, except as otherwise provided in this chapter.”

Unlike endangered, threatened, and rare species, for which a take permit may be issued, California Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

The California Endangered Species Act does not provide statutory protection for California species of special concern, but they should be considered during the environmental review process.

California Rare Plant Ranks (RPR)

Plants with 1A, 1B, 2 or 4 should always be addressed in CEQA documents. Plants with a RPR 3 do not need to be addressed in CEQA documents unless there is sufficient information to demonstrate that a RPR 3 plant meets the criteria to be listed as a RPR 1, 2, or 4.

RPR 1A: Plants presumed to be extinct because they have not been seen or collected in the wild in California for many years. This list includes plants that are both presumed extinct in California, as well as those plants which are presumed extirpated in California. A plant is extinct in California if it no longer occurs in or outside of California. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.

RPR 1B: Plants that are rare throughout their range with the majority of them endemic to California. Most of the plants of List 1B have declined significantly over the last century.

RPR 2: Plants that are rare throughout their range in California, but are more common beyond the boundaries of California. List 2 recognizes the importance of protecting the geographic range of widespread species.

Plants identified as RPR 1A, 1B, and 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing.

RPR 3: A review list for plants for which there is inadequate information to assign them to one of the other lists or to reject them.

RPR 4: A watch list for plants that are of limited distribution in California.

Global and Subnational Rankings

Though not associated directly with legal protections, species have been given a conservation status rank by NatureServe, an international non-profit conservation organization that is the leading source for information about
rare and endangered species and threatened ecosystems. The Ventura County Planning Division considers the following ranks as sensitive for the purposes of CEQA impact assessment (G = Global, S = Subnational or State):

G1 or S1 – Critically Imperiled
G2 or S2 – Imperiled
G3 or S3 - Vulnerable to extirpation or extinction

Migratory Bird Regulations

The Federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game (CFG) Code (3503, 3503.5, 3511, 3513 and 3800) protect most native birds. In addition, the federal and state endangered species acts protect some bird species listed as threatened or endangered. Project-related impacts to birds protected by these regulations would normally occur during the breeding season, because unlike adult birds, eggs and chicks are unable to escape impacts.

The MBTA implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and Russia for the protection of migratory birds, which occur in two of these countries over the course of one year. The Act maintains that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Bird species protected under the provisions of the MBTA are identified by the List of Migratory Birds (Title 50 of the Code of Federal Regulations, Section 10.13 as updated by the 1983 American Ornithologists' Union (AOU) Checklist and published supplements through 1995 by the USFWS).

CFG Code 3513 upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, there are CFG Codes (3503, 3503.5, 3511, and 3800) which further protect nesting birds and their parts, including passerine birds, raptors, and state “fully protected” birds.

NOTE: These regulations protect almost all *native nesting birds*, not just sensitive status birds.

Plant Community Regulations

Plant communities are provided legal protection when they provide habitat for protected species or when the community is in the coastal zone and qualifies as environmentally sensitive habitat area (ESHA).

Global and Subnational Rankings

Though not associated directly with legal protections, plant communities have been given a conservation status rank by NatureServe, an international non-profit conservation organization that is the leading source for information about rare and endangered species and threatened ecosystems.

The Ventura County Planning Division considers the following ranks as sensitive for the purposes of CEQA impact assessment (G = Global, S = Subnational or State):

G1 or S1 – Critically Imperiled
G2 or S2 – Imperiled
G3 or S3 – Vulnerable to extirpation or extinction

CDFW Rare

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. Though the Native Plant Protection Act and the California Endangered Species Act provide no legal protection to plant communities, CDFW considers plant communities that are ranked G1-G3 or S1-S3 (as defined above) to be rare or sensitive, and therefore these plant communities should be addressed during CEQA review.

Oak Woodlands Protection Act (SB-1334)

The Oak Woodlands Protection Act requires that the County of San Mateo, during the CEQA process, evaluate whether the project will result in the conversion of oak woodlands that will have a significant negative effect on the environment. If the city determines that a significant effect will occur, it will require one or more of the following mitigation measures:

1. Conserve oak woodlands, through the use of conservation easements.
2. Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
3. Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.
4. Other mitigation measures developed by the city.

Waters and Wetlands Regulations

Numerous agencies control what can and cannot be done in or around streams and wetlands. If a project affects an area where water flows, ponds or is present even part of the year, it is likely to be regulated by one or more agencies. Many wetland or stream projects will require three main permits or approvals (in addition to CEQA compliance). These are:

- 404 Permit (U.S. Army Corps of Engineers)
- 401 Certification (California Regional Water Quality Control Board)
- Streambed Alteration Agreement (California Department of Fish and Wildlife)

404 Permit (U.S. Army Corps of Engineers)

Most projects that involve streams or wetlands will require a 404 Permit from the U.S. Army Corps of Engineers (USACE). Section 404 of the federal Clean Water Act is the primary federal program regulating activities in wetlands. The Act regulates areas defined as “waters of the United States.” This includes streams, wetlands in or next to streams, areas influenced by tides, navigable waters, lakes, reservoirs and other impoundments. For nontidal waters, USACE jurisdiction extends up to what is referred to as the “ordinary high water mark” as well as to the landward limits of adjacent Corps-defined wetlands, if present. The ordinary high water mark is an identifiable natural line visible on the bank of a

stream or water body that shows the upper limit of typical stream flow or water level. The mark is made from the action of water on the streambank over the course of years.

Permit Triggers: A USACE 404 Permit is triggered by moving (discharging) or placing materials—such as dirt, rock, geotextiles, concrete or culverts—into or within USACE jurisdictional areas. This type of activity is also referred to as a "discharge of dredged or fill material."

401 Certification (Regional Water Quality Control Board)

If your project requires a USACE 404 Permit, then you will also need a Regional Water Quality Control Board (RWQCB) 401 Certification. The federal Clean Water Act, in Section 401, specifies that states must certify that any activity subject to a permit issued by a federal agency, such as the USACE, meets all state water quality standards. In California, the state and regional water boards are responsible for certification of activities subject to USACE Section 404 Permits.

Permit Trigger: A RWQCB 401 Certification is triggered whenever a USACE 404 Permit is required, or whenever an activity could cause a discharge of dredged or fill material into waters of the U.S. or wetlands.

Streambed Alteration Agreement (California Department of Fish and Wildlife)

If your project includes alteration of the bed, banks or channel of a stream, or the adjacent riparian vegetation, then you may need a Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). The California Fish and Game Code, Sections 1600-1616, regulates activities that would alter the flow, bed, banks, channel or associated riparian areas of a river, stream or lake. The law requires any person, state or local governmental agency or public utility to notify CDFW before beginning an activity that will substantially modify a river, stream or lake.

Permit Triggers: A Streambed Alteration Agreement (SAA) is triggered when a project involves altering a stream or disturbing riparian vegetation, including any of the following activities:

- Substantially obstructing or diverting the natural flow of a river, stream or lake
- Using any material from these areas
- Disposing of waste where it can move into these areas

Some projects that involve routine maintenance may qualify for long-term maintenance agreements from CDFW. Discuss this option with CDFW staff.

San Bruno Mountain Habitat Conservation Plan (HCP)

The project area lies within the Management Unit 2-03-02 of the Brisbane Acres Management Area of the San Bruno Mountain Habitat Conservation Plan. Due to the presence of a number of protected species and habitats, a detailed operating plan exists for the Brisbane Acres area. The entirety of the HCP dealing with the management of Unit 2-03-02 is provided below.

HCP Objectives –- Specific Conservation Needs

The HCP objectives for the Brisbane Acres reflects the City's Open Space Plan (OSP) which was drafted by the City of Brisbane Open Space and Ecology Committee and adopted by the Brisbane City Council in 2001. The overall objectives of the OSP are to:

- Identify and prioritize significant natural and open space resource within the City of Brisbane;
- Conduct a thorough inventory of existing open space resources;
- Prepare a map identifying existing open space resources and highlight important resource lands;

- Identify a means for preserving and acquiring open space areas; Develop recommendations for the City Council to adopt and implement an overall open space land preservation program.

The OSP includes the Brisbane Acres as a specific subarea with defined recommendations for preserving open space in the Acres. The following is a list of the recommended selection criteria for acquiring open space parcels in the Brisbane Acres:

- Parcels that are either not adjacent to existing development or are only adjacent on one side of the parcel
- Parcels are contiguous to San Bruno Mountain County Park
- Parcels contain intact native vegetation
- Parcels contain significant watercourses or wetlands
- Parcels contain habitat for the endangered butterflies
- Parcels would be appropriate locations for trail corridor

The OSP includes maps that shows what parcels in the Acres contain one or more of the significant resources identified in the selection criteria. The OSP relies on private property owners:

1) Donate land to the City as a tax write-off
2) Dedicate land as mitigation for development
3) Willingly selling the land to the City at fair market value or at a "bargain sale" which provide the landowners with a tax write-off
4) Use the City's Density Transfer Ordinance to transfer development rights to property owners/parcels in areas of the City that are not constrained for development.

The OSP recommends that the City:

1) Review development parcels in the Acres for the presence of significant natural resource and guide development plans to protect the resources;
2) Require the dedication of open space easements to protect critical resources on parcels that are granted for development approvals
3) Pursue purchasing open space lands from willing sellers
4) Accept dedications of open space lands
5) Actively seek state, federal and private grants for acquisition of parcels with high resource values
6) To work with the HCP operator to preserve butterfly habitat in the Acres.

Operating Program for Management Units 2-03-01 and 2-03-02

2-03-02: This Management Unit is adjacent to county parklands and the South Slope Administrative Parcel. Of the two Brisbane Acres Management Units, this one is utilized by the butterflies of concern to a greater extent and contains the habitat or rare, endemic and range limit plants.

Obligations: Landowners have the following obligations:

1. Unless development is proposed, this area should be left in its natural state and protected from vandalism as necessary.

2. If development is planned for property within this area, a new Management Unit shall be designated, for which a separate Operating Program shall be approved. That Operating Program shall comply with mitigation measures set forth in Section 4, below.

3. As applicable, landowners shall participate in the regulatory provisions and Funding Program of this HCP.

4. Prior to any grading and/or development project and/or the removal or damage of or use of pesticides on vegetation in excess of 500 square feet in any calendar year in the Brisbane Acres:

   a. An environmental assessment must be prepared. Any such environmental assessment must describe the impacts on habitat of the Mission blue and Callippe Silverspot and must discuss mitigation measures. Notice of development and/or grading proposals and copies of all environmental documents must be sent to the California State Department of Fish and Game, the U.S. Fish and Wildlife Service and the Plan Operator (properties acquired by the City of Brisbane as open space within this management unit may be added to Management Unit 2-03-18 only to the approval of the Plan Operator), and

   b. The Landowner must demonstrate that approval of the grading and/or development proposal is consistent with protecting 40% of the Brisbane Acres as Conserved Habitat.

      (1) All Landowners shall demonstrate consistency through all of the following mitigation measures:

         (a) Imposition of landscaping restrictions on undeveloped portions of sites to require removal of invasive species and to retain natural vegetation and to prohibit the planting of invasive species on portions to be developed

         (b) Reclamation plans for temporarily disturbed areas

         (c) Payment of a mitigation fee to the City for habitat acquisition. The fee shall be computed by multiplying the "Mitigation Fee Land Area" by the "Mitigation Fee Market Value." As used herein, the "Mitigation Fee Land Area" shall mean 40% of the square footage of the entire property, reduced by the square footage of any land, on or off site, having demonstrated value as habitat for species of concern, which is permanently protected by the Landowner as habitat. Any off site land should be within one of the two management units (2-03-01 and 2-03-02). As used herein, the term "Mitigation Fee Market Value" shall mean the highest or most recent per square foot sales price, whichever is greater, of land within Administrative Parcel 2-03-02 purchased by the City of Brisbane or sold through private transactions, as adjusted for inflation since the date of purchase using the same index applied to the per unit HCP assessment.

      (2) For lands on which endangered species' larval habitat or any rare plant exists, the Landowners shall further demonstrate consistency through the use of the following additional mitigation measures:

         (a). Dedication of permanent open space easements or transfer of fee title, covering an area not less than 40% of the property, for the purpose of protecting existing habitat.

         (b). Grading plans designed to minimize habitat destruction to the greatest extent possible, except in no event shall Callippe Silverspot habitat be destroyed unless replacement habitat has first been created elsewhere.

         (c). Development siting, which may include clustering of development, in order to protect the habitat buffer areas (as defined on page G-1 of the HCP) between habitat and development and to provide broad corridors (as defined on page G-2 of the HCP)

      (3) To further encourage habitat protection, off-site parcels may be acquired for dedication as permanent habitat in order to transfer the allowed density to other parcels in the Brisbane

Acres, consistent with the City of Brisbane's zoning regulations.

5. Require through CC&Rs that future owners observe general provisions regarding protection of Conserved Habitat

6. Submit the final grading plan used to obtain a grading permit and a revegetation plan to the Plan Operator for review. The plan shall provide for temporary fencing to protect all adjacent Conserved Habitat.

The Plan Operator and/or the City of Brisbane have the following obligations:

1. Monitor the effect on adjacent Conserved Habitat of all activities within development areas and provide advice and direction to the Landowners to assist in compliance with the obligations described above.

2. Designate vegetation materials for use in Reclamation Plans and review such Reclamation Plans submitted by Landowners with respect to Administrative Parcel 2-03 in a timely fashion to avoid delays in the implementation of such Plans;

1. Accept dedications of Conserved Habitat within Administrative Parcel 2-03.

2. Prepare a specific habitat management plan for the City-owned open space parcels that is consistent with HCP goals and objectives regarding the protection and maintenance of endangered species habitat. Alternatively, include the City-owned open space parcels in the HCP's Five-year Strategic Plan which is a document prepared by the Habitat Manager which provides strategic implementation guidelines for managing specific conserved habitat areas on the Mountain. The strategic plan must be prepared at five year intervals.

City of Brisbane General Plan

The City of Brisbane General Plan contains various programs and policies regarding natural resource use and conservation within the city's jurisdiction. The plan also contains a detailed section discussing the land use, open space, and conservation programs and policies for the Brisbane Acres area. Below are the portions of the General Plan relevant to this project.

Open Space

Policy 81: The City Shall conduct an on-going effort to identify sites or portions of sites having particular value as open space, wildlife habitat, wetlands, or other environmental qualities that should be preserved and protected. In such cases, the City shall explore the feasibility of acquisition of these areas by the City or by other public or private agencies that are engaged in the ownership and preservation of open space, and, when legally possible, imposing a requirement that such areas be dedicated by the owner to the public for open space purposes.

Policy 81.1: Work to preserve open space lands to protect the natural environment and to provide outdoor educational and recreational opportunities consistent with the sensitivity of the resource.

Policy 82: Encourage the preservation, conservation and restoration of open space to retain existing biotic communities, including rare and endangered species habitat, wetlands, watercourses and woodlands.

Policy 83: Maintain the visual beauty of the Mountain, the ridgelines, hilltops, wildlife and plant habitat including the Brisbane Acres.

Program 83a: In the official actions of the City, including resolutions and ordinances, recognize the importance of maintaining and preserving the natural eco-system and beauty of San Bruno Mountain.

Program 83b: Comply with the provisions of the Habitat Conservation Plan to protect endangered species habitat.

Program 83c: Cooperate with public and private groups involved in rare plant protection, habitat restoration and maintenance of mountain eco-systems to preserve open space on San Bruno Mountain.

Conservation

Policy 118: Preserve areas containing rare and endangered species habitat to the extent allowed by law and available resources.

Policy 119: Comply with the provisions of the Habitat Conservation Plan and the Agreement with respect to the San Bruno Mountain Area Habitat Conservation Plan.

Policy 120: Cooperate with local, State and Federal agencies in conservation efforts for biological resources.

Policy 122: Cooperate with other agencies in conservation efforts.

Program 122a: Work with the Habitat Conservation Plan Operator, the State Department of Fish and Game, the U.S Fish and Wildlife Service, and other agencies as appropriate regarding plans and programs that may affect biological resources in the planning area.

Program 122b: Consult the maps in the technical background reports and information supplied by responsible agencies to determine potential for environmental impacts to biological resources and take appropriate action.

Program 122c: Consult with local, State and Federal agencies to determine when field studies are required to supplement or update existing data.

Program 122e: Encourage applicants to initiate early CEQA consultation on conservation issues.

Policy 123: Conserve important biological communities through sensitive project design.

Program 123a: In land use development applications, consider the siting of structures and utilities so as to conserve identified biological communities.

Program 123b: Request that the HCP Operator study the Brisbane Acres to determine whether there is the potential to meet the 40% requirement for conserved habitat by dedication of large areas of land rather than small portions of parcels.

Policy 129: Require erosion controls to mitigate soil disturbance.

Program 129a: Encourage all property owners, especially of the Quarry, to address erosion on their properties through revegetation or other measures.

Policy 130.1: The City requires restoration of wetland losses. The determination of which land areas are wetlands will be done by those Federal and State agencies having jurisdiction. The City, however, is especially concerned with those wetlands surrounding the perimeter of the Brisbane Lagoon, the Bay shoreline, the Levinson Marsh and the Quarry sediment ponds. The ratios of restoration may exceed the regulatory agencies' mitigation minimums.

Policy 131: Emphasize the conservation of water quality and of riparian and other water-related vegetation, especially that which provides habitat for native species, in planning and maintenance efforts.

Brisbane Acres

Chapter XII.4 of the General Plan outlines specific policies and programs regarding the Brisbane Acres subarea.

Land Use Policy

BA.1: Grading and excavation should be minimized and exposed retaining walls avoided. Landforms should retain the natural topographic character of the Mountain.

Open Space/Conservation Policy

BA.2: Omitted

Program SAB.BA.2.a: In conjunction with any subdivision or other development application, a landscape program and plan shall be submitted to the City and include the following:

a) Identification and retention of heritage trees
b) Identification and retention of rare plants
c) Plant species that are not invasive to the habitat
d) Water-conserving plants and irrigation systems
e) Reduced fuels adjacent to the wildland
f) Screening of structures to blend with the natural landscape
g) Areas for Conserved Habitat and/or other provisions required by the Habitat Conservation Plan Operator.

Program BA.2.b: Examine ways to improve the existing density transfer program so that a developer/owner can be granted increased density on sites already served by infrastructure in conjunction with the dedication of more remote sites as Open Space.

Program BA.2.c: Retain a trail system through the Brisbane Acres to connect the area to Central Brisbane and the San Bruno Mountain State and County Park.

Program BA.2.d: Map the canyons, intermittent streambeds and banks in the Brisbane Acres and designate such areas for protection.

Program BA.2.e: Develop clear regulations that can be enforced to preserve the natural ecology of the canyons, intermittent streambeds and banks.

Community Health and Safety/Conservation

Policy BA.3: Consider the environmental constraints of the subarea in conjunction with land use development applications.

Program BA.3.a: In conjunction with any subdivision or other development application, the property owner shall be required to supply detailed information on slope, access, water, sanitary sewer and storm drain infrastructure, soils, geology, cultural resources, significant vegetation and endangered species habitat.

Program BA.3.b: Geologic studies for parcels in the Brisbane Acres shall be performed by a licensed engineer and shall pay special attention to slope, landslide and subsurface water. Such studies shall include a detailed evaluation of the stability of the proposed site, the potential effects of construction on the site and adjacent and downslope areas, and the effects of any construction or installation of infrastructure on the site. Specific recommendations for project design to ensure safety and mitigate impacts shall be included in the report and incorporated into construction documents by the project engineer.

Program BA.3.c: Phase grading and construction to coincide with periods of dry weather as set forth in the City's Grading Ordinance.

City of Brisbane Municipal Code

Section 12.12.020 States:

"Protected tree" means each of the following:

1. Any California Bay (Umbellularia californica), Coast Live Oak (Quercus agrifolia), or California Buckeye (Aesculus californica) having a main stem or trunk which measures thirty (30) inches or greater in circumference at a height of twenty-four (24) inches above natural grade.

2. Any species of native or nonnative tree, in addition to those identified in subsection (1) above, designated as a protected tree on recommendation of the parks and recreation commission as adopted by resolution of the city council, based upon its finding and determination that such species uniquely contributes to the scenic beauty of the city or provides special benefits to the natural environment or wildlife.
3. Any tree designated as a protected tree by resolution of the city council.

4. Any tree, regardless of size, originally required by the city to be planted as a condition for the granting of a permit, license, or other approval, or any tree that existed at the time of the granting of such permit, license, or other approval and required by the city to be preserved as part of such approval.

5. Any tree, regardless of size, required by the city to be planted as a replacement for an unlawfully removed tree.

6. Any tree, regardless of size, planted or maintained by the city.

7. Any street tree which is not otherwise described in subsections (1) through (6) above, having a main stem or trunk which measures thirty (30) inches or greater in circumference at a height of twenty-four (24) inches above natural grade.

8. Where three (3) or more trees of any one or more species, each having a main stem or trunk which measures thirty (30) inches or greater in circumference at a height of twenty-four (24) inches above natural grade, are proposed to be removed at the same time from the same property or from contiguous properties under common ownership, such trees shall collectively be regarded as a protected tree.

Pursuant to Section 12.12.040, application and approval of a tree removal permit by the City of Brisbane is required for removal of

3. Any protected tree.

4. Any other tree having a main stem or trunk which measures thirty (30) inches or greater in

circumference at a height of twenty-four (24) inches above natural grade. This requirement shall apply to every owner or occupant of real property within the city, and to every person responsible for destroying, removing, or severely trimming a tree for which a tree removal permit is required under this chapter, regardless of whether such person is engaged in a tree removal business.

Section 17.12.040-I States:

All development within the R-BA District shall comply with the requirements of the San Bruno Mountain Area Habitat Conservation Plan (HCP), including site activity review, environmental assessments, and operating programs for planned management units, consistent with the objectives and obligations set forth in the HCP.

Section 17.12.040-K States:

1. All development proposals shall include a landscape plan to be approved by the planning director in consultation with the HCP plan operator. The plan shall show all proposed landscaping and the location of all protected trees and rare plants. The landscape plan shall be consistent with all of the following objectives:

a. Preservation of protected trees and rare plants to the greatest extent possible;

b. Use of plants that are compatible with the natural flora and fauna, and are not invasive to the HCP area;

c. Use of water conserving plants;

d. Use of plants that will effectively screen structures and blend with the natural landscape; and

e. Use of landscaping that is fire resistant.

Section 17.12.040-M States:

Canyon Watercourses and Wetlands. Development of the site, including any temporary disturbance, shall be set back thirty (30) feet in each direction from the center line of any watercourse, and twenty (20) feet from the boundary of any wetlands. The specific location of watercourse center lines and wetland boundaries shall be determined by qualified personnel under the city's direction.

Appendix B

Potentially Occurring Special Status Species

Species Name	Status	Habitat	Potential to Occur Onsite
MAMMALS			
Pallid bat *Antrozous pallidus*	SSC	Generally found in dry, open habitats including deserts, grasslands, shrublands, woodlands and forests. Roosts in protected structures and rocky outcrops.	**Low potential,** foraging habitat only. No suitable roosting or breeding habitat present.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC	Wide variety of habitats, most common in mesic sites. Roosts in the open, hanging from walls & ceilings.	**Low potential.** Suitable foraging habitat present, however no suitable roosting or breeding habitat present.
Santa Cruz kangaroo rat *Dipodomys venustus*	G4T1, S1	Requires soft, well-drained sandy soils. Found in manzanita mixed chaparral.	**No potential.** No suitable habitat or soils present onsite.
Southern sea otter *Enhydra lutris nereis*	FT, FP, SSC	Near shore, marine environments with canopies of giant kelp and bull kelp and rocky substrates.	**No potential.** Site is not located near a marine environment.
North American porcupine *Erethizon dorsatum*	SSC	Wide variety of coniferous and mixed woodland habitats. Generally in the Sierra Nevada, Cascade and Coast Ranges, also occasionally in the transverse ranges.	**No potential.** Last observed in Pacifica in 1972.
Western red bat *Lasiurus blossevillii*	SSC	Roosts primarily in trees from sea level up through mixed conifer forests preferring habitat edges.	**Low potential**. No known breeding colonies within San Francisco County, though species could use trees within the study area during migration in fall.
Hoary bat *Lasiurus cinereus*	WBWG:M	Roosts in dense foliage of deciduous and evergreen trees, forages over streams and ponds. Prefers habitat edges with access to trees for cover and open areas for feeding.	**Low potential**. Some suitable roosting sites present in trees on site. This species does not breed in the San Francisco Bay area.
	WBWG:H,		

Species Name	Status	Habitat	Potential to Occur Onsite
Fringed myotis *Myotis thysanodes*		Found in a wide variety of habitats but prefers dry hardwood woodlands. Roosts in rock crevices, bridges, buildings and tree hollows.	**Low potential,** foraging habitat only. No roosting habitat present.
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	SSC	Forests with moderate canopies and moderate to dense understory.	**No potential.** This species not known to occur on San Bruno Mountain. No middens were observed.
Big free-tailed bat *Nyctinomops macrotis*	SSC	Low-lying arid areas; roosts in high cliffs and rocky outcrops.	**No potential.** Suitable foraging or roosting habitat not present onsite.
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE, SE	Salt and brackish water wetlands in the San Francisco Bay only. Requires pickleweed (*Salicornia pacifica)* as cover and forage.	**No potential**. Suitable habitat not present.
Angel Island mole *Scapanus latimanus insularis*	S1	Known only from Angel Island in San Francisco Bay. Needs friable soils for burrowing.	**No potential.** Site is not located on Angel Island.
Alameda Island mole *Scapanus latimanus parvus*	S1	Known only from Alameda Island, habitat variable, usually grasslands. Prefers moist, friable soils, avoids flooded soils.	**No potential.** Site not located on Alameda Island.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of shrub, forest, and herbaceous habitats, with friable soils.	**No potential.** Not known to occur in the vicinity of San Bruno Mountain. Last observation in San Francisco from 1947.
Point Reyes jumping mouse *Zapus trinotatus orarius*	SSC	Primarily in bunch grass marshes on uplands of Point Reyes. Also found in coastal scrub, grassland, and meadows.	**No potential.** No suitable habitat present.
BIRDS			
Cooper's hawk *Accipiter cooperii*	WL, S3	Open or interrupted woodlands. Nests in deciduous trees in riparian areas and live oaks.	**Moderate potential**, foraging only. Nesting habitat not present on site.
Burrowing owl *Athene cunicularia*	SSC	Grassland, open areas with rodent activity; nest in burrows and is most often associated with the California ground squirrel.	**No potential. No suitable habitat.** No ground squirrel or other small mammal burrows observed on site.
Marbled murrelet *Branchyramphus marmoratus*	FT, SE	Occurs year-round in marine subtidal and pelagic habits from Oregon to Point Sal, Santa	**No potential.** No suitable habitat present.

Species Name	Status	Habitat	Potential to Occur Onsite
		Barbara. Uses stands of mature Douglas fir and redwoods up to 40 miles inland for nesting.	
Western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC	Sandy beaches, salt pond levees, and alkali lake shores. Requires sandy, gravelly soils for nesting.	**No potential.** No suitable habitat present.
Northern harrier *Circus cyaneus*	SSC	Found in coastal salt and fresh-water marshes. Forages over variety of habitats and nests in shrubby vegetation at marsh edge.	**Moderate potential, f**oraging only. Nesting habitat not present on site.
Yellow rail *Coturnicops noveboracensis*	SSC	Freshwater marshes. Is a summer resident in eastern Sierra Nevada, in mono county.	**No potential.** No suitable habitat on site. Last observed in Alameda in 1905.
White-tailed kite *Elanus leucurus*	S3	Foothills and valley margins with scattered oaks, or in marshes adjacent to deciduous woodlands. Prefers isolated trees for nesting.	**Low potential.** Foraging only, suitable nest trees not present.
Merlin *Falco columbarius*	WL	Seacoast, tidal estuaries, open woodlands, savannahs, grassland and desert edges, farms and ranches. Roosts in trees, nests in northern Canada and Alaska.	**Low potential**, foraging only. Merlins do not nest in California.
American peregrine falcon *Falco peregrinus anatum*	CFP	Hunts on beaches, mudflats and near water features including wetlands, lakes and rivers. Nests on ledges in cliffs or buildings.	**Low potential,** foraging only. No suitable nesting habitat present.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	SSC	Marshy, brushy vegetation in or near water. Requires thick continuous cover of marsh and /or riparian cover down to water surface for foraging. Nests in willow, tall grasses, and tule patches.	**No potential.** Suitable foraging and nesting habitat not present.
California black rail *Laterallus jamaicensis coturniculus*	ST, FSC	Freshwater marsh, wet meadows, and margins of saltwater marshes. Requires water depths of approximately one inch for nesting habitat.	**No potential.** No suitable habitat present.
Alameda song sparrow *Melospiza melodia pusillula*	SSC	Salt marshes bordering south arm of San Francisco Bay. Inhabits	**No potential.** No suitable habitat present.

Species Name	Status	Habitat	Potential to Occur Onsite
		Salicornia marshes and nests in *Grindelia* bushes.	
San Pablo song sparrow *Melospiza melodia samuelis*	SCC	Salt marshes along the north side of San Francisco and San Pablo Bays. Inhabits *Salicornia* marshes and nests in *Grindelia* bushes.	**No potential.** No suitable habitat present.
Double-crested cormorant *Phalacrocorax auritus*	WL	Nesting habitat includes coastal cliffs, offshore islands, and along lake margins in inland areas.	**No potential.** No suitable habitat present.
California Ridgway's rail *Rallus obsoletus*	FE, SE, FP	Salt-water and brackish marshes in the San Francisco Bay. Associated with pickleweed.	**No potential**. No suitable habitat present.
Bank swallow *Riparia riparia*	ST	Riparian ecosystems, forages in a variety of ecosystems, but primarily over water features. Colonial nester in vertical banks/cliffs with fine sandy soils.	**No potential**. No nesting habitat present.
California least tern *Sternula antillarum browni*	FE, SE	Migratory. Nests along California coast from San Francisco Bay South to Northern Baja California. Found on bare or sparsely vegetated sandy beaches, alkali flats or landfills. Forage over marine and bay waters and feed on small fish and invertebrates.	**No potential.** No suitable habitat present.
AMPHIBIANS AND REPTILES			
California tiger salamander *Ambystoma californiense*	FT, ST	Seasonal wetlands in grassland and oak-savannah. Requires underground refuges for cover and vernal pools or other seasonal water sources for breeding.	**No potential.** No aquatic or other suitable habitats on or near site.
California giant salamander *Dicamptodon ensatus*	FT, SSC	Inhabits wet coastal forests near streams from Mendocino Co. south to Monterey Co. and east to Napa Co. Aquatic larvae require cold clear streams, occasionally in lakes or ponds. Adults found in wet forests under rocks and logs near lakes or streams.	**No potential.** No aquatic or other suitable habitats on or near site.

Species Name	Status	Habitat	Potential to Occur Onsite
Western pond turtle *Emys marmorata*	SSC	Ponds, creeks in woodland, grassland. Species requires deep water ponds, streams, or marshes with sunny, emergent basking sites and sunny upland habitat for nesting.	**No potential.** No aquatic or other suitable habitats on or near site.
Foothill yellow-legged frog *Rana boylii*	SE, SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying, and at least 15 weeks to attain metamorphosis.	**No potential.** No aquatic or other suitable habitats on or near site.
California red-legged frog *Rana draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	**No potential.** No aquatic or other suitable habitats on or near site.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, ST	Near freshwater marshes, ponds, and slow moving streams. Prefers dense cover and water depths of at least one foot. Also found in upland habitats adjacent to water sources. Prefers south or west facing slopes with open habitats with occasional shrubs for cover.	**No potential.** No freshwater aquatic or other suitable habitats on or near site.
INVERTEBRATES			
Opler's longhorn moth *Adela opierella*	G2, S2	Inner coast ranges. Associated with serpentine grassland. Larvae feed on *Platystemon californicus.*	**No potential.** No suitable habitat present, host plant not present.
Incredible harvestman *Banksula incredula*	G1, S1	Known only from one locality, a Franciscan sandstone talus slope with dense chaparral canopy on San Bruno Mountain, San Mateo County.	**No potential.** Nearest (and only) recorded occurrence is from 2 miles southwest of survey area. Talus slopes not present on site.
Western bumble bee *Bombus occidentalis*	G2G3, S1	Open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows. Host plants include *Ceanothus, Centaurea, Chrysothamnus, Cirsium, Geranium, Grindellia, Lupinus, Melilotus, Monardella, Rubus, Solidago,* and *Trifolium*. Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease. Nests underground.	**No potential.** Nectar and pollen plants not present.

Species Name	Status	Habitat	Potential to Occur Onsite
Obscure bumble bee *Bombus caliginosus*	S1S2	Coastal areas from Santa Barbara county to north to Washington state. Grassy coastal prairies and meadows. Nectar and pollen plants include: *Ceanothus, Cirsium, Clarkia, Keckiella, Lathyrus, Lotus, Lupinus, Rhododendron, Rubus, Trifolium,* and *Vaccinium*	**No potential.** Nectar and pollen plants not present.
Crotch bumble bee *Bombus crotchii*	G2, S1S2	Coastal California east to the Sierra-Cascade Crest. Food plants include: *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.*	**No potential.** Nectar and pollen plants not present.
Tomales isopod *Caecidotea tomalensis*	G2, S2	Fresh-water ponds or streams with still or near-still water.	**No potential.** No suitable habitat present.
Edgewood blind harvestman *Calicina minor*	G1, S1	Open grassland in areas of serpentine bedrock, found on the underside of serpentine rocks near permanent springs.	**No potential.** No suitable habitat on site.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE	Coastal mountains with grassy ground cover, mainly near San Bruno Mountain. Host plant is *Sedum spathulifolium*.	**No potential.** Suitable habitat and host plant not present.
Sandy beach tiger beetle *Cicindela hirticollis gravida*	S1	Coastal areas adjacent to non-brackish water with dry, light-colored sand.	**No potential.** No suitable habitat present onsite.
Monarch Butterfly *Danaus plexippu* ˆCalifornia overwintering population	S3	Roosts located in wind protected tree groves (eucalyptus, Monterey pine, Monterey cypress) with nectar sources and water nearby. Larvae feed on *Asclepias* spp. leaves.	**Low potential.** Limited suitable roosting habitat present within the study area.
Stage's dufourine bee *Dufourea stagei*	G1G2, S1?	Ground-nesting bee known only from San Bruno Mountain. *Dufourea* bees are associated with native grassland species.	**No potential**. Only record is from 1962 from San Bruno Mountain. Native grassland not present.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT	Native grasslands on outcrops of serpentine soils. Host plants include *Plantago erecta, Orthocarpus (Castilleja) densiflorus* and *O. purpurscens.*	**No potential**. Species reintroduced to San Bruno Mountain in 2017.
Ricksecker's water scavenger beetle	G2?,S2?		**No potential.** No aquatic habitat present.

Species Name	Status	Habitat	Potential to Occur Onsite
Hydrochara rickseckeri		Aquatic habitats, weedy shallow open water, and slow moving stream habitats.	
Leech's skyline diving beetle *Hydroporus leechi*	G1?, S1?	Aquatic beetle. Known from Edgemar district of Pacifica, several miles south of San Francisco County.	**No potential**. No suitable habitat present on site.
Mission blue butterfly *Icaricia icarioides missionensis*	FE	Grasslands of the San Francisco Peninsula. Uses three perennial lupines as larval host plants, *Lupinus albifrons, L. variicolor, and L. formosus.*	**No potential.** Suitable host plants not present on site.
San Francisco fork-tailed damselfly *Ischnura gemina*	G2, S2	Freshwater marshes and creeks with emergent and floating aquatic vegetation.	**No potential.** No suitable habitat present on site.
Bumblebee scarab beetle *Lichnanthe ursina*	G2, S2	Coastal sand dunes from Sonoma County south to San Mateo County. Usually stays close to sand surface.	**No potential**. No suitable habitat present.
Callippe silverspot butterfly *Speyeria callippe callippe*	FE	Northern coastal scrub and grasslands of San Francisco Peninsula. Host plant is *Viola pedunculata*. Utilizes a variety of native and nonnative plants as nectar sources and hilltops for mate selection.	**No potential.** Host plants not present within study area.
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*	FE	Coastal habitats with *Viola adunca.* Restricted to foggy dunes and hills of the Point Reyes peninsula.	**No potential**. No suitable habitat on site.
San Francisco Bay Area leaf-cutter bee *Trachusa gummifera*	G1, S1	Nests in hillside by creating diagonal tunnels in dirt and other substrate. Feeds on flower pollen and nectar.	**No potential.** Only observation is from 1957 in San francisco.
Mimic tryonia (=California brackishwater snail) *Tryonia imitator*	G2, S2	Coastal lagoons, estuaries and salt marshes.	**No potential**. No suitable habitat present on site.
Marin Hesperian *Vespericola marinensis*	G2, S2	Found in moist spots in coastal scrub and chaparral vegetation in Marin County. Associated with cow- parsnip spring seeps, leaf-mold along streams, alder woods and mixed evergreen forest.	**No potential**. No suitable habitat present on site.

Species Name	Status	Habitat	Potential to Occur Onsite
PLANTS			
San Mateo thorn-mint *Acanthomintha duttonii*	FE, CE, CNPS 1B.1	Chaparral, serpentinite, valley and foothill grasslands. Elevation: 50 - 300 meters. Blooming period: Apr.-June.	**No potential**. Not known from San Bruno Mountain. Nearest known occurrence is on Pulgas ridge, 11 miles south.
Blasdale's bent grass *Agrostis blasdalei*	CNPS 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie Elevation: 0 - 150 meters Blooming period: May-July	**No potential**. No suitable habitat on site.
Franciscan onion *Allium peninsulare var. franciscanum*	CNPS 1B.2	Cismontane woodland, valley and foothill grassland. clay soils, often on serpentine. Dry hillsides. Elevation: 100-300 m. Blooming: period: May-June.	**No potential**. No suitable habitat or soils present on site.
Bent- flowered fiddleneck *Amsinckia lunaris*	CNPS 1B.2 G2?, S2?	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland, associated with open areas. Elevation: 3 - 500 meters. Blooming period: Mar. – June.	**No potential**. No suitable habitat on site.
Coast rock cress *Arabis blepharophylla*	CNPS 4.3	Coastal areas with marine influence. Rocky outcroppings, bluffs, grassy slopes. Elevation: 50-300 meters. Blooming period: May-June.	**No potential**. No suitable habitat on site.
Franciscan manzanita *Arctostaphylos franciscana*	FE, CNPS 1B.1	Serpentine outcrops in chaparral. Elevation: 60-300 meters. Blooming period: Feb.- Apr.	**No potential.** Not observed during site surveys. Suitable soils not present.
San Bruno Mountain manzanita *Arctostaphylos imbricata*	SE, CNPS 1B.1	Sandstone outcrops in chaparral, also coastal scrub. Elevation: 175-365 meters. Blooming Period: Feb.- May.	**No potential**. No suitable habitat on site, not observed during the site visit.
Presidio manzanita *Arctostaphylos montana ssp. ravenii*	FE, SE CNPS 1B.1	Open, rocky serpentine slopes in chaparral, coastal prairie, and coastal scrub. Elevation: 30-90 meters. Blooming period: Feb.-Mar.	**No potential**. Not observed during site survey. Suitable soils not present.
Montara manzanita *Arctostaphylos montaraensis*	G1, S1 CNPS 1B.2	Slopes and ridges in chaparral, and coastal scrub, Elevation: 150 - 500 meters. Blooming period: Jan.- Mar.	**No potential**. Not observed during site survey.
Pacific Manzanita *Arctostaphylos pacifica*	SE, CNPS 1B.1	Coastal scrub, associated with *Arctostaphylos imbricata, A. uva-ursi,* and *Erysimum franciscanum.*	**No potential**. Not observed during site survey.

Species Name	Status	Habitat	Potential to Occur Onsite
		Elevation: 280-379 meters. Blooming period: Feb.– Apr.	
Kings Mountain manzanita *Arctostaphylos regismontana*	G2, S2, CNPS 1B.2	Broadleaved upland forest, chaparral, north coast coniferous forest. Elevation: 305 - 730 meters.	**No potential**. Not observed during site survey.
Marsh sandwort *Arenaria paludicola*	FE, SE CNPS 1B.1	Freshwater marshes and swamps with dense mats of vegetation. Elevation: 10-170 meters. Blooming period: May- Aug.	**No potential**. No suitable habitat present on site.
Coastal marsh milk-vetch *Astragalus pycnostachyus* var. *pycnostachyus*	G2T2, S2 CNPS 1B.2	Moist dunes, marshes, streamsides, Wetland. Elevation: 0 - 30 meters. Blooming period: Apr.-Oct.	**No potential**. No suitable habitat on site.
Alkali milk-vetch *Astragalus tener var. tener*	G2T2, S2 CNPS 1B.2	Alkali playa, valley and foothill grasslands, vernal pools in low, flooded lands. Elevation: 1-170 meters. Blooming period: Mar-June.	**No potential.** No suitable habitat on site.
Coastal bluff morning-glory Calystegia purpurata ssp. saxicola	CNPS 1B.2	Coastal dunes, coastal scrub, coastal bluff scrub, north coast coniferous forest. Elevation: 5-430 meters. Blooming period: May-Sept.	**No potential.** No suitable habitat on site.
Bristly sedge *Carex comosa*	S2, CNPS 2B.1	Freshwater wetlands on lake-margins and edges. 270-1030 meters. Blooming period: May-Sept.	**No potential.** No suitable habitat on site.
Northern meadow sedge *Carex praticola*	S2, CNPS 2B.2	Found in moist to wet meadows in coastal prairies and north coastal coniferous forests. Elevation: 15-3200 meters. Blooming period: May- July.	**No potential.** No suitable habitat on site.
Pappose tarplant *Centromadia parryi* ssp. *parryi*	G3T2, S2, CNPS 1B.2	Vernally mesic areas in chaparral, coastal prairie, marsh and swamp, meadow and seep, valley and foothill grassland habitats. Often in alkaline sites. Elevation: 2 - 420 meters. Blooming period: May-Nov.	**No potential.** No suitable habitat on site.

Species Name	Status	Habitat	Potential to Occur Onsite
Point Reyes bird's-beak *Chloropyron maritimum ssp. palustre*	S2, CNPS 1B.2	Marsh and swamp, Salt marsh, Elevation: 0 - 10 meters. Blooming period: June- Oct.	**No potential**. No suitable habitat on site.
San Francisco Bay spineflower *Chorizanthe cuspidata var. cuspidata*	G2T1, S1, CNPS 1B.2	Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, open sandy soils. Elevation: 3 - 215 meters. Blooming period: Apr. - July.	**No potential.** No suitable habitat on site.
Robust spineflower *Chorizanthe robusta var. robusta*	FE, CNPS 1B.1	Sandy terraces and bluffs, or loose sand, in cismontane woodland, coastal dunes and coastal scrub. Elevation: 3-1200 meters. Blooming period: Apr.- Sept.	**No potential**. Suitable soils not present.
Franciscan thistle *Cirsium andrewsii*	G2, S2.2, CNPS 1B.2	Coastal scrub, Broadleaved upland forest, Coastal bluff scrub, Coastal prairie. Sometimes associated with serpentine seeps. Associated with riparian herb species such as *Toxicodendron, Urtica, Baccharis, Conium, Delphinium,* etc. Elevation: 0 - 150 meters. Blooming period: Mar. – July.	**No potential.** No suitable habitat on site.
Crystal Springs fountain thistle *Cirsium fontinale var. fontinale*	FE, CE, CNPS 1B.1	Chaparral, cismontane woodland, meadow & seep, ultramafic valley & foothill grassland, wetland. Blooming period: (April) May-October.	**No potential**. No suitable habitat on site.
Mt. Tamalpais thistle *Cirsium hydrophilum var. vaseyi*	G2T1, S1, CNPS 1B.2	Serpentine seeps and streams in chaparral and woodland. Broadleafed upland forest, chaparral, meadows and seeps. Elevation: 180-610 meters. Blooming period: May- Aug.	**No potential**. No suitable habitat on site.
Compact cobwebby thistle *Cirsium occidentale var. compactum*	G3G4T2 CNPS 1B.2	Coastal dunes, prairie and scrub. Also on dunes and clay in chaparral and grassland. Elevation: 5-155 meters. Blooming period: Apr.- June.	**No potential.** No suitable habitat on site.
Presidio clarkia *Clarkia franciscana*	G1, S1 CNPS 1B.1	Valley grassland, northern coastal scrub, with affinity for serpentine soils. Elevation: 5- 340 meters. Blooming period: May-July.	**No potential.** No suitable habitat on site.

Species Name	Status	Habitat	Potential to Occur Onsite
Round-headed Chinese-houses *Collinsia corymbosa*	G1, S1, CNPS 1B.2	Coastal strand on sand dunes. Elevation: 0-85 meters. Blooming period: Apr.- June.	**No potential**. No suitable habitat present on site.
San Francisco collinsia *Collinsia multicolor*	G2, S2.2, CNPS 1B.2	Grows on decomposed shale with decomposed organic material (humus) in closed cone coniferous forest coastal scrub. Elevation: 30 - 250 meters. Blooming period: Mar.-May.	**No potential.** No suitable habitat on site.
Western leatherwood *Dirca occidentalis*	CNPS 1B.2	Moist ravines, riparian thickets on slopes, broad leafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest. Elevation: 25 - 425 meters.	**No potential**. Not observed during site survey. No suitable habitat on site.
San Mateo woolly sunflower *Eriophyllum latilobum*	FE, CE, CNPS 1B.1	Cismontane woodland, ultramafic, Elevation: 45 - 150 meters. Blooming period: May- June.	**No potential**. No suitable habitat on site.
San Francisco wallflower *Erysimum franciscanum*	CNPS 4.2	Serpentine outcrops, coastal scrub, or sand dunes, granitic hillsides. Elevation: <500 meters. Blooming period: Jan-Apr.	**Low potential.** Suitable habitat generally not present.
San Joaquin spearscale *Etriplex joaquinana*	G2, S2, CNPS 1B.2	Chenopod scrub, alkali wetlands or alkali sink scrub, playas, valley and foothill grasslands. Associated with *Distichlis spicata, Frankenia,* etc.	**No potential**. No suitable habitat present on site.
Hillsborough chocolate lily *Fritillaria biflora* var. *ineziana*	CNPS 1B.1	Cismontane woodland, ultramafic, valley foothill grassland. Blooming period: Mar. – Apr.	**No potential.** No suitable habitat on site.
Fragrant fritillary *Fritillaria liliacea*	G2, S2 CNPS 1B.2	Coastal scrub, Cismontane woodland, Coastal prairie, Valley and foothill grassland, clay or serpentine. Elevation: 3 - 410 meters. Blooming period: Feb.-Apr.	**No potential.** No suitable habitat on site.
Marin checker lily *Fritillaria lanceolata var. tristulis*	CNPS 1B.1	Found in coastal bluff scrub, coastal scrub, and coastal prairie, often on serpentine, in canyons, riparian areas, and rock outcrops. Elevation: 15-150 meters. Bloom period: Feb-May.	**No potential.** No suitable habitat on site.

Species Name	Status	Habitat	Potential to Occur Onsite
Blue coast gilia *Gilia capitata ssp. chamissonis*	G5T2, S2, CNPS 1B.1	Endemic to sand dunes of the central coast. Elevation: 0- 580 meters. Blooming period: Apr.- July	**No potential**. No suitable habitat present on site.
Dark-eyed gilia *Gilia millefoliata*	G2, S2, CNPS 1B.2	Coastal strand. Elevation 0-610 meters. Blooming period: Apr. - July.	**No potential**. No suitable habitat present on site.
San Francisco gumplant *Grindelia hirsutula* var. *maritima*	S1, CNPS 3.2	Coastal bluff, coastal scrub, grasslands. Elevation: 15 - 400 meters. Blooming period: June-Sept.	**Low potential.** Habitats within the survey area are highly disturbed.
Diablo helianthella *Helianthella castanea*	G2, S2 CNPS 1B.2	Usually in chaparral and oak woodland interface in rocky soils. Also broadleaved upland forest, coastal scrub, riparian woodland and foothill and valley grassland. Elevation: 25-1150 meters. Blooming period: Mar.-June.	**Low potential.** Habitats within the survey area are highly disturbed.
White seaside tarplant *Hemizonia congesta ssp. congesta*	S1S2, CNPS 1B.2	Valley and foothill grasslands and coastal scrub. Elevation: 25-200 meters. Blooming Period: Apr.-Nov.	**No potential**. Habitats within the survey area are highly disturbed. Records in the San Francisco Peninsula are from the early 1900's.
Short-leaved evax *Hesperevax sparsiflora* var. *brevifolia*	S2S3 CNPS 1B.2	Coastal bluff scrub, Coastal dunes, Sandy soils. Elevation: 0 - 215 meters. Blooming period: Mar.-June.	**No potential.** Suitable habitat not present.
Marin western flax *Hesperolinon congestum*	FT, ST	In serpentine barrens and in serpentine grassland and chaparral. Elevation: 5 - 370 meters. Blooming period: Apr.-July.	**No potential**. No suitable soils present.
Water star-grass *Heteranthera dubia*	S1, CNPS 2B.2	Alkaline water that is still or slow-moving. Found in marshes and swamps. Elevation: 30-1495 meters. Blooming period: July-Aug.	**No potential**. No suitable habitat present on site.
Santa Cruz tarplant *Holocarpha macradenia*	FT, SE CNPS 1B.1	Found in clay and sandy soils in coastal prairie, coastal scrub, and valley and foothill grasslands, often with non-native species. Elevation: 10-220 M Blooming period: June- Oct.	**No potential**. Suitable soils not present.

Species Name	Status	Habitat	Potential to Occur Onsite
Kellogg's horkelia *Horkelia cuneata ssp. sericea*	S2?, CNPS 1B.1	Closed-cone coniferous forest, Chaparral, Coastal dunes, Coastal scrub in sandy or gravelly, openings. Blooming period: Apr. – Sept.	**No potential**. Suitable soils and habitat not present.
Point Reyes horkelia *Horkelia marinensis*	CNPS 1B.2	Sandy coastal dunes, coastal prairie, coastal scrub Elevation: 5 - 755 meters Blooming period: May-Sept	**No potential**. Suitable soils and habitat not present.
Coast Iris *Iris longipetala*	CNPS 4.2	Moist coastal prairie, or open coastal forest. Elevation: <600 meters. Blooming period: March-May.	**Low potential.** Nearest occurrence is ~.5 miles to the south. Suitable habitat generally not present.
Perennial goldfields *Lasthenia californica ssp. macrantha*	CNPS 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub. Elevation: 5 - 520 meters. Blooming period: Jan.-Nov.	**No potential**. No suitable habitat present.
Beach layia *Layia carnosa*	FE, SE	Coastal dunes and coastal scrub. Elevation: 0-550 meters. Blooming period: Mar.- July.	**No potential**. No suitable habitat present on site.
Coast yellow leptosiphon *Leptosiphon croceus*	CNPS 1B.1	Coastal bluff scrub, coastal prairie. Elevation: 10 - 150 meters. Blooming period: Apr.-May.	**No potential**. No suitable habitat on site
Rose leptosiphon *Leptosiphon rosaceus*	G1, S1 CNPS 1B.1	Coastal bluff scrub. Elevation: 0 - 100 meters. Blooming period: Apr.-July.	**No potential**. No suitable habitat present on site.
San Francisco lessingia *Lessingia germanorum*	FE, SE	Coastal scrub on open sandy soils (dunes). Elevation: 5-790 meters. Blooming Period: July- Nov.	**No potential**. No suitable habitat present on site.
Crystal Springs lessingia *Lessingia arachnoidea*	CNPS 1B.2	Cismontane woodland, Coastal scrub, valley and foothill grassland. Strong affinity to serpentine soil. Elevation: 60 - 200 meters. Blooming period: July-Oct.	**No potential**. Not known to occur on San Bruno Mountain. Serpentine soils not present.
Ornduff's meadowfoam *Limnanthes douglasii ssp. ornduffii*	CNPS 1B.1	Agricultural fields. Meadows and seeps. Elevation: 10 - 20 meters. Blooming period: Nov-May	**No potential**. No suitable habitat present.
Arcuate bush-mallow *Malacothamnus arcuatus*	G2, S2, CNPS 1B.2	Chaparral, Cismontane woodland. Elevation: 15 - 355 meters. Blooming period: Apr.- Sept.	**No potential**. Not observed during site surveys. Nearest known occurrence

Species Name	Status	Habitat	Potential to Occur Onsite
			near San Andreas Reservoir.
Marsh microseris *Microseris paludosa*	FSC	Moist open woods or grassland; Closed-cone coniferous forest, Cismontane woodland, Coastal scrub, Valley and foothill grassland. Requires vernally moist to saturated soils. Elevation: 5 - 300 meters Blooming period: Apr.- June.	**No potential**. No suitable habitat present on site.
Northern curly-leaved monardella *Monardella sinuate ssp. nigrescens*	S2, CNPS 1B.2	Found in sandy soils in coastal dunes, coastal scrub, chaparral, and lower montane coniferous forest. Elevation 0-300 meters. Bloom period: May-July.	**No potential.** No suitable soils present.
Woodland woollythreads *Monolopia gracilens*	CNPS 1B.2	Broadleaved upland forest (openings), chaparral, cismontane woodland, north coast coniferous forest (openings), Ultramafic, Valley and foothill grassland, Elevation: 100 - 1200 meters. Blooming period: Mar.-July	**No potential**. Habitat is highly disturbed.
White-rayed pentachaeta *Pentachaeta bellidiflora*	FE, SE	Ultramafic grassland. Open dry rocky slopes and grassy areas. Often on soils derived from serpentine bedrock. Elevation: 35 - 620 meters. Blooming period: Mar.-May	**No potential**. Presumed extirpated, suitable habitat not present.
Choris popcornflower *Plagiobothrys chorisianus* var. *chorisianus*	S2.2, CNPS 1B.2	Chaparral, Coastal prairie, Coastal scrub, mesic. Elevation: 15 - 160 meters. Blooming period: Mar. – June.	**No potential**. No suitable habitat, including mesic conditions present.
San Francisco popcornflower *Plagiobothrys diffuses*	SE	Coastal prairie, valley grassland. Elevation: 15-260 meters. Blooming period: Mar.- June.	**No potential**. No suitable habitat present.
Hairless popcornflower *Plagiobothrys glaber*	CNPS 1A	Coastal salt marsh, in meadows, and wetland-riparian. Elevation 5-180 meters. Blooming Period: Mar.-May.	**No potential**. No suitable habitat present on site.
Oregon polemonium *Polemonium carneum*	S1, CNPS 2.2	Coastal prairie, coastal scrub, lower montane coniferous forest. Elevation: 0 - 1830 meters. Blooming period: Apr. – Sept.	**No potential**. No suitable habitat present. Historical records only.

Species Name	Status	Habitat	Potential to Occur Onsite
Marin knotweed *Polygonum marinense*	G2Q, S2, CNPS 3.1	Coastal salt marshes and brackish marshes. Elevation: 0-10 meters. Blooming period: May- Aug.	**No Potential**. No suitable habitat present on site.
Hickman's cinquefoil *Potentilla hickmanii*	FE, CE, CNPS 1B.1	Freshwater marshes, seeps, and small streams in open or forested areas along the coast. Closed-cone coniferous forest, coastal bluff scrub, freshwater marsh, marsh and swamp, meadow and seep, wetland. Elevation: 10 - 149 meters. Blooming period: Apr.-Aug.	**No potential**. No suitable habitat present.
Adobe sanicle *Sanicula maritima*	SR	Meadows, seeps, grassland, chaparral, and coastal prairie in moist clay or ultramafic soils. Elevation: 15-190 meters. Blooming period: Feb.- May.	**No potential.** No suitable habitat on site.
Chaparral ragwort *Senecio aphanactis*	CNPS 2B.2	Chaparral, cismontane woodland, and coastal scrub. Associated with drying alkaline flats. Elevation: 20- 855 meters Blooming period: Jan – Apr (May)	**No potential.** No suitable soils present.
Scouler's catchfly *Silene scouleri ssp. scouleri*	CNPS 2B.2	Perennial herb found in coastal bluff scrub, coastal prairie, and valley and foothill grassland. Elevation: 0-600 meters. Blooming period: (Mar.) June-Aug. (Sep).	**Low potential**. Suitable habitat generally not present. Nearest known record is .5 miles to the south.
San Francisco campion *Silene verecunda ssp. verecunda*	S1, CNPS 1B.2	Chaparral, Coastal bluff scrub, Coastal prairie, Coastal scrub, valley and foothill grassland, often on mudstone or shale, and in sandy soils, Ultramafic. Elevation: 30 - 645 meters. Blooming period: Mar. - Aug.	**Low potential**. Suitable habitat generally not present. Nearest known record is .5 miles to the south.
Santa Cruz microseris *Stebbinsoseris decipiens*	G2, S2.2 CNPS 1B.2	Found in open areas in loose or disturbed soils derived from sandstone, shale or serpentine, on seaward slopes. Broadleaf upland forest, conifer forest, chaparral, coastal prairie, coastal scrub. Elevation: 0-510 meters. Blooming period: Apr.-May.	**No potential**. Suitable habitat generally not present. Records from Angel Island and Marin County only.

Species Name	Status	Habitat	Potential to Occur Onsite
California seablite *Suaeda californica*	FE	Perennial evergreen shrub found on margins of coastal salt marshes and swamps. Elevation: 0-15 meters. Blooming period: July to Oct.	**No Potential**. No suitable habitat on site.
Showy rancheria clover *Trifolium amoenum*	FE, CNPS 1B.1	Coastal bluff scrub, valley and foothill grasslands, sometimes in serpentine substrates. Elevation: 5-415 meters. Blooming period: Apr.- June.	**No Potential**. No suitable habitat on site.
Saline clover *Trifolium hydrophilum*	G2, S2 CNPS 1B.2	Mesic and alkaline sites in marshes, swamps, valley and foothill grasslands, and vernal pools. Elevation: 0-300 meters. Blooming period: Apr.- June.	**No Potential**. No suitable habitat on site.
San Francisco owl's-clover *Triphysaria floribunda*	G2, S2.2 CNPS 1B.2	Coastal prairie and valley grassland, associated with serpentine soils. Elevation: 10-200 meters. Blooming Period: Apr.-June.	**No Potential**. Suitable habitat not present.
Coastal triquetrella moss *Triquetrella californica*	G1, S1, CNPS 1B.2	Coastal bluff scrub, coastal scrub, valley and foothill grassland, rocky slopes. Associated with *Pinus contorta, Picea sitchensis, Sequoia sempervirens* in north, and dense chaparral in southern range. Elevation: 10- 100 meters.	**No Potential**. Suitable habitat not present.
Oval-leaved viburnum *Viburnum ellipticum*	G4G5, S3 CNPS 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation: 215-1400 meters. Blooming period:	**No potential.** Historical records in East Bay only.
Natural Plant Communities			
Northern Maritime Chaparral	G1, S1.2	Shrubland plants with sclerophyllous leaves growing on nutrient poor soils, near the coast in northern and central California. *Arctostaphylos, Adenostema,* and Ceanothus tend to be dominant species.	**Not observed.** This habitat type is present further west on San Bruno Mountain.
Valley Needlegrass Grassland	G3, S3.1	Herbaceous layer of perennial grasses where *Stipa* is characteristically present. Generally intermingling with non-	**No Potential.** No *Stipa* or other native perennial grasses were observed on site.

Species Name	Status	Habitat	Potential to Occur Onsite
		native annual grasses including *Bromus* and *Avena* species. Found in valley and foothill areas. Soils can have high clay content in inland areas, or be shallow and rocky near the cost.	
Serpentine Bunchgrass	G2, S2.2	Herbaceous grassland dominated by perennial bunchgrasses including *Poa secunda, Stipa,* or *Festuca idahoensis or F. rubra.* Found in uplands or freshwater wetlands (*Poa)*, and in all topographic locations.	**No Potential.** No perennial native grasses were observed on site. There are no serpentine soils mapped within the survey area or observed on site.
Northern Coastal Salt Marsh	G3, S3.2	Salt-tolerate hydrophytes forming dense cover up to one meter tall. Found in sheltered inland margins of bays, lagoons and estuaries. Associated with hydric soils.	**No Potential**. The study area does not contain salt marsh habitats.
Northern Maritime Chaparral	G1, S1.2	Chaparral habitat associated with various types of manzanita (*Arctostaphalos crustacea, A. tomentosa).* Soils are derived from various substrates, usually nutrient-poor sandstone, shale, sand deposits, and granitics.	**No Potential.** Manzanita species were not observed within the study area.
California Buckeye Groves	G3, S3	Woodland habitat where California buckeye (*Aesculus californica)* is dominant or co-dominant in the canopy.	**No potential.** California buckeye was not observed within the study area.

GEOTECHNICAL REPORT AND GEOLOGIC HAZARDS EVALUATION
3708 BAYSHORE BOULEVARD
BRISBANE, CALIFORNIA 94005
ASSESSORS BLOCK APN 007-350-120

Client:
Sean Brennan – MK Pipelines
3708 Bayshore Blvd.
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16 November 2023
23-230301-02

16 November 2023
23-230301-02

Sean Brennan – MK Pipelines Aura Smithers
3708 Bayshore Blvd.
Brisbane, California 94005
seanbrennan@mkpipelines.com

Subject: Geotechnical Report and Geologic Hazards Evaluation
Proposed Storage Yard, Parking Lot and Retaining Walls
3708 Bayshore Blvd.
Brisbane, California 94005

Dear Mr. Brennan:

This letter transmits our geotechnical report and geologic hazards evaluation for the proposed parking lot and retaining walls to be constructed at 3708 Bayshore Boulevard in Brisbane, California. Our services were performed in accordance with our proposal dated 7 June 2023.

Our report contains detailed recommendations that should be reviewed in their entirety. Our continued involvement as geotechnical engineer of record is predicated on our geotechnical review of the project documents, and our geotechnical observations during construction.

A competent and experienced person should be present during the geotechnical aspects of construction to identify any deviations from the conditions described in this report and on the project documents. We should be notified immediately if a changed or unknown condition is encountered.

We appreciate the opportunity to be involved with this project. If you have any questions, please contact a signee of this report.

Yours Sincerely,
DIVIS CONSULTING, INC.

Christian J Divis, GE2694
Principal Engineer

ATTACHMENT

GEOTECHNICAL REPORT AND GEOLOGIC HAZARDS EVALUATION
3708 BAYSHORE BOULEVARD
BRISBANE, CALIFORNIA 94005
ASSESSORS BLOCK APN 007-350-120

Client:
Sean Brennan – MK Pipelines
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16 November 2023
23-230301-02

Prepared by:

Christian J Divis, PE, GE
Geotechnical Engineer, GE2694

Eric W. Ford, PG
Professional Geologist, PG8462

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3708 BAYSHORE BOULEVARD
BRISBANE , CALIFORNIA 94005
ASSESSORS BLOCK APN 007-350-120

1.0 INTRODUCTION

This report presents the results of our geotechnical report and geologic hazards evaluation for the proposed storage yard, parking lot and associated retaining structures to be constructed at the property located at 3708 Bayshore Boulevard, California. The site is located along Bayshore Boulevard in Brisbane, California as shown on the Site Location Map (Figure 1).

2.0 SITE DESCRIPTION

The subject site is a 5000-square-foot plot of land located on the west side of Bayshore Boulevard, approximately 1500 feet south of the intersection of Brisbane Boulevard and Tunnel Avenue. The site lies within parcel APN 007-350-120, which is bordered by Bayview Boulevard to the northeast, undeveloped lots to the northwest, west and southwest, and the existing MK Pipeline equipment yard to the southeast. A site plan can be found in Figure 2.

The proposed site is located at the northeastern end of the parcel. The site has been cleared of heavy brush and debris and is currently vacant. The proposed storage yard area is mostly level, but the eastern portion slopes towards Bayshore Boulevard at an approximate slope of 3:1-2:1. The approximate location of the proposed site within the parcel is shown on Figure 2.

Based on a topographic survey prepared by Savior P. Micallef Land Surveying (dated 16 June 2022), the elevation of the bench where the proposed parking lot will be constructed lies at approximately 109 feet and Bayshore Boulevard downslope to the east at 90 feet (assumed datum). San Mateo County map shows the same bench at an elevation of approximately 45 feet and Bayshore Boulevard at 26 feet. The change in elevation across the proposed work area is on the order of 19 feet. The parcel extends upwards to the west another 90 feet.

3.0 PROPOSED DEVELOPMENT

Our understanding of the proposed development is based on correspondence with you, a site visit, and a review of the preliminary project plans referenced here:

Based on our observations in the field, we understand that the plans involve extending the existing MK Pipeline equipment yard into the new lot, with the existing driveway and lot serving as the access point from Bayshore Boulevard. To maximize the square footage of the proposed storage yard and parking lot, we anticipate minor excavation work into the existing hillside and fills along Bayshore Boulevard may be necessary. We anticipate a drilled deepened foundation system to retain proposed cuts along the western and northwest side of the site and a drilled pier wall system along Bayshore Boulevard may be required to level the site for the proposed storage yard and parking lot.

We anticipate site excavations (i.e., cuts into the existing hillside) up to about 6 feet tall will be required to construct the equipment yard and new log level and its supporting foundation system. Deeper cuts or additional site grading may be needed to facilitate the proposed yard along the north side of the proposed storage yard.

4.0 SCOPE OF WORK

Our services were performed in accordance with our proposal dated 7 February 2023 and subsequent authorization to revise our initial report to include a geologic hazard study. Our services included a preliminary geotechnical data review, a geologic hazard review, a review of available reports by others for the site and vicinity, a site-specific reconnaissance and engineering analyses for foundation support. Based on the results of our studies, we developed geotechnical conclusions and recommendations regarding the following:

- Geologic hazards for the site and vicinity,
- site preparation and grading,
- pavement design based on assumed R-values and traffic indexes,
- lateral earth pressures for site walls,
- seismicity and preliminary conclusions regarding geologic hazards, and

- construction considerations.

Corrosion studies and waterproofing are beyond our scope of services. The civil aspects of drainage systems are beyond our scope of services. We can provide a separate scope and fee to evaluate additional geotechnical aspects for the proposed development upon request.

5.0 DATA REVIEW

We performed a preliminary geotechnical and geologic data review for the site and site vicinity. This included a review of the mapped special studies zones and the seismic hazard zone report for San Mateo County, regional seismicity, previous geotechnical investigations by others, and published geologic maps. Additional references indicated in this section and others are listed in Section 12. Aerial photographs reviewed are presented in Section 12. References utilized in our geotechnical and geologic studies are presented in Section 13.

5.1 Nearby Geotechnical Reports by Others

We reviewed the following geotechnical reports by others from the site vicinity.

Engineering Geologic Investigation, Residential Subdivision, San Francisco Avenue and Santa Clara Street, Brisbane, California, prepared by Gilpin Geosciences, Inc., dated 27 August 2008.

Geotechnical Peer Review of Draft Report, Nijem Property Development, Parcel Bound by Bayshore Boulevard, San Francisco Avenue and Santa Clara Street, Brisbane, California, prepared by Cotton, Shires and Associates, Inc., dated 16 September 2013.

Supplemental Geological and Geotechnical Investigation, Brisbane Subdivision, San Francisco Avenue and Santa Clara Street, Brisbane, California, prepared by Gilpin Geosciences Inc., dated 7 April 2014.

Geotechnical Peer Review of Draft Report, USA Guofu Proposed Subdivision, San Francisco Avenue and Santa Clara Street, Brisbane, California, prepared by Cotton, Shires and Associates, Inc., dated 12 June 2014.

Revised Geotechnical and Geological Investigation, 3710 – 3760 Bayshore Boulevard, Brisbane, California, prepared by Langan Treadwell & Rollo, dated 21 January 2009.

A summary of the subsurface conditions encountered within each report is presented below.

5.1.1 Engineering Geologic Investigation, Residential Subdivision, San Francisco Avenue and Santa Clara Street

In 2008, Gilpin Geosciences performed an engineering geologic investigation for the planned residential subdivision at San Francisco Avenue and Santa Clara Street, Brisbane. This property is located adjacent to and extends approximately 900 feet north-northwest of the subject site. The field investigation consisted of drilling (5) exploratory test borings at the site and installed slope inclinometers in all five borings to maximum depth of 81.5 feet.

The test borings encountered up to 30 feet of loose surficial sandy clay soil consisting of colluvium or landslide deposits underlain by sandstone and shale bedrock. The sandstone and shale units were logged to 81.5 feet below the ground surface; groundwater was observed at 20-25 feet.

Extensive quarrying and past landslide activity at the site were identified in this report.

5.1.2 Revised Geotechnical and Geological Investigation, 3710 – 3760 Bayshore Boulevard

In 2009, Langan Treadwell & Rollo performed a geotechnical and geological investigation for the planned condominium buildings at 3710 – 3760 Bayshore Boulevard, Brisbane. This property is located adjacent to and extends approximately 500 feet south-southeast of the subject site. The field investigation consisted of drilling two (2) exploratory test borings to depths of 9 and 14.75 feet and seven (7) hand-excavated test pits ranging in depths of 10 to 43 feet. Four 4 wire line piezometers were installed within the test pits.

The results of the subsurface exploration indicate the property is underlain by Franciscan assemblage sedimentary sandstone and siltstone. The bedrock near the surface of the slope is deeply weathered, resulting in less competent material in the upper approximately 15-25 feet of the slope. Two deep-seated landslides and third smaller landslide were identified on the property with depths extending up to 38 feet deep. Groundwater was measured at 15-43 feet within installed piezometers.

5.1.3 Geotechnical Peer Review of Draft Report, Nijem Property Development, Parcel Bound by Bayshore Boulevard, San Francisco Avenue and Santa Clara Street

In 2013, Cotton, Shires and Associates performed a geotechnical peer review of a draft report submitted by Gilpin Geosciences after improving the site topographic data and logging four (4) large-diameter bucket auger borings to a maximum depth of 110 feet. Multiple landslides appear to exist within the property with landslide depths potentially reaching 20-70 feet, or more. At this time, the characterization of the site geologic conditions remains incomplete with significant uncertainties.

5.1.4 Supplemental Geological and Geotechnical Investigation, Proposed Brisbane Subdivision, San Francisco Avenue and Santa Clara Street

In 2014, Gilpin Geosciences performed an engineering geologic investigation for the planned residential subdivision at San Francisco Avenue and Santa Clara Street, Brisbane. This property is located adjacent to and extends approximately 900 feet north-northwest of the subject site. The field investigation consisted of the original five (5) exploratory borings and slope inclinometers drilled and installed in 2008 and an additional two (2) exploratory test borings with vibrating wire piezometers and four (4) large-diameter bucket auger borings to a maximum depth of 110 feet.

The test borings encountered up to 30 feet of loose surficial sandy clay soil consisting of colluvium or landslide deposits underlain by sandstone and shale bedrock. The presence of adversely oriented crushed shale beds at depths of 65 to 70 feet bgs in borings GGI-9L, GGI-10, GGI-11 is evidence of deformation that indicate the presence of the potential of deep-seated landsliding beneath the site. Groundwater was observed at 20-25 feet.

5.1.5 Geotechnical Peer Review of Draft Report, USA Guogu Proposed Subdivision, San Francisco Avenue and Santa Clara Street

In 2014, Cotton, Shires and Associates performed a geotechnical peer review of a draft report submitted by Gilpin Geosciences and Rockridge Geotechnical dated April 4, 2014. IT was determined that additional exploration was needed to better characterize the existing landslides for the planned residential subdivision

5.1.6 Draft Borings and Cross Sections.

In addition to the reports mentioned above, we reviewed draft cross sections prepared subsequently to the 2014 Cotton Shires review and based on new boring which was never published. The draft cross section is presented as Figure 6.

5.2 State of California Special Studies Zones

The State of California has mapped active fault zones, zones of potential liquefaction and earthquake-induced landslides. These zones are typically referred to as Special Studies Zones. Figure 3 presents a map of where these zones, if any, are present within the project vicinity.

5.2.1 State of California Seismic Hazard Zones

The site is not located within a liquefaction zone but the entire site lies within an earthquake-induced landslide hazard zone, as defined by the California Geological Survey (CGS, 2000), and as shown on Figure 3. The nearest liquefaction hazard zone is roughly 300 feet east and downslope of the subject site, along the western part of Brisbane Lagoon and east of Bayshore Boulevard.

5.2.2 Alquist Priolo Earthquake Fault Zones

The site is not within a State of California Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act of 1972. No known active or potentially active faults have been mapped within or adjacent to the site according to published geologic maps (Blake and others, 2000; Schlocker, 1974; California Geological Survey, 2018; Hart and Bryant, 1997; and Jennings and Bryant, 2010). A map of known regional faults is presented as Figure 5.

5.3 Aerial Photograph Review

The development history of the site was compiled by reviewing historical aerial photographs from 1930 to 1965 downloaded from the UC Santa Barbara Library with supplemental aerial photographs from Google Earth to as recent as 2023. We also reviewed site history based on aerial photograph interpretation provided within the nearby reports by Gilpin Geosciences (GGI, 2008, 2014); Treadwell & Rollo (T&R, 2009); and Cotton, Shires and Associates (CSA, 2013). The following paragraphs provide a brief chronology of site development.

The earliest vertical aerial photographs of the site were taken in 1930. The site is undeveloped with what appears to be tall grass mostly covering the hillside. Bayshore Boulevard has been constructed. The

majority of the site is characterized by a large (approximately 500 feet long by 300 feet wide) landslide with an arcuate headscarp that originates near the top of the ridge to the southwest and extends downward to the northeast towards and perhaps beneath Bayshore Boulevard. Abundant ground cracks and erosion gullies are visible. The toe of slide appears to have extended out beyond Bayshore Boulevard and into Brisbane Lagoon prior to the recent improvements of Bayshore Boulevard. Notable large active landslides are visible in the adjacent properties to the northwest and southeast. It also appears that the landslides are occurring within potentially quarried and borrow areas for the extensive construction and fill placement surrounding the area, making it difficult to interpret landslides from quarry excavation. A small road crossing the hillslope from north to south is notably offset by the landslide margins and damaged within the slide deposits. Approximately 325 feet of this road is missing within the scarp above MK Pipelines; Google Maps shows this missing section of road labeled as: “Washed out Roadway 1936”.

Aerial photographs from 1941 clearly show the landslide described above, directly within and surrounding the property currently occupied by MK Pipelines. While little or no vegetation is observable within the landslide scar, the 1941 photo shows at least 4 structures standing within the boundaries of the slide, and the area of the proposed storage yard has been graded. There appears to be a recently repaired section of Bayshore Boulevard directly below the landslide, suggesting some time had passed between the slope failure and the 1941 air photo flight. There appears to be quarrying or borrow excavations in the adjacent properties to the immediate north and south along and upslope from Bayshore Blvd.

Aerial photographs from 1943 and 1946, show continued quarrying and or borrowing from the site and surrounding areas and notable grading on the adjacent site to the north.

Aerial photographs from 1956, 1963 and 1965 show continued quarrying and or borrowing from the site and surrounding areas. By 1956 a small (quarry?) road extends from the south side of the site at the proposed construction area and extends diagonally up to the northwest across the graded area described above and towards San Francisco Avenue. By 1965 large (eucalyptus) trees have filled in at the south end of the site and buildings are clearly visible at the location of MK Pipelines property.

Google Earth aerial photos from 7/1993 - 7/2023 show the site similar to current site conditions. The site is covered with vegetation consisting of shrubs, broom, poison oak and many small trees.

5.4 Geologic Setting

The site is within the Coast Ranges geomorphic province of California that is characterized by rugged northwest-trending mountain chains, valleys, and ridges. The predominant geologic structure and topographic features are controlled by folds and faults that resulted from the collision of the Farallon tectonic plate and the North American tectonic plate and subsequent right-lateral strike-slip faulting along the San Andreas Fault system (Wagner and others, 1990). The San Andreas Fault is more than 600 miles long as mapped from Point Arena in the north to the Gulf of California in the south (Jennings and Bryant, 2010). The Coast Ranges province is bounded on the east by the Great Valley and on the west by the Pacific Ocean.

We reviewed published geologic maps for the site vicinity. A representative geologic map (Bonilla, 1998) is presented as Figure 5. The near surface unit is mapped as Landslide Deposits (Ql). The surrounding vicinity is mapped as Sandstone and Shale (KJsk). The relevant geologic unit description for the subject site from published sources is included below:

- Ql, (Landslide Deposits, Quaternary) – Composition and structure depend on the geologic formation involved in type of landslide.
- KJsk, (Sandstone and shale) Sandstone generally containing more than two percent potassium feldspar.

The information regional geology is presented for informational purposes only. The geologic units indicated on published maps are not intended to be used for site specific analyses. Actual conditions can and often do vary from mapped geologic units and contact locations.

5.5 Regional Seismicity

The major active faults in the area are the San Andreas, San Gregorio, Hayward, Rodgers Creek, and Calaveras Faults. These and other faults in the region are shown in Figure 4. The two closest faults, the San Andreas and Hayward Faults are approximately 4.5 miles and 13.5 miles to the southwest and northeast measured orthogonally to the site, respectively (Jennings and Bryant, 2010).

The U.S. Geological Survey's Working Group on California Earthquake Probabilities (WGCEP, 2013) has determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring before

2044 is 72 percent. The probability of a moment magnitude 6.0 or greater earthquake occurring during the same period is 98 percent.

The most recent major earthquake to affect the Bay Area was the Loma Prieta Earthquake of 17 October 1989, in the Santa Cruz Mountains with a Moment Magnitude (Mw) of 6.9. The epicenter for the Loma Prieta Earthquake was about 53 miles from the site. The most recent earthquake with a significant impact to the Bay Area occurred on 24 August 2014 and was located on the West Napa fault with a Mw of 6.0. The earthquake epicenter was about 34 miles from the site. The 2014 South Napa Earthquake was felt as far away as Reno, Nevada (Brocher et al, 2015; and Stover and Coffman, 1993).

Historically, two major earthquakes have occurred in the Bay Area within the last 150 years. The San Francisco Earthquake and Fire of 1906 caused the most significant damage in the history of the Bay Area in terms of loss of lives and property damage. This earthquake created a surface rupture along the San Andreas Fault from Shelter Cove to San Juan Bautista approximately 290 miles in length, had a Mw of about 7.9, and was felt 350 miles away in Oregon, Nevada, and Los Angeles. The Hayward Earthquake of 21 October 1868 was known as the Great Earthquake before the 1906 event. The Hayward Earthquake occurred approximately 14 miles to the east with a Mw of about 6.8 (Stover and Coffman, 1993).

The U.S. Geological Survey's Working Group on California Earthquake Probabilities (WGCEP, 2013) has determined that the overall probability of moment magnitude 6.7 or greater earthquake occurring before 2044 is 72 percent. The probability of a moment magnitude 6.0 or greater earthquake occurring during the same period is 98 percent.

6.0 GEOLOGIC RECONNAISSANCE AND FIELD INVESTIGATION

We visited the site on 31 March 2023 to conduct a geotechnical and geologic reconnaissance of the site and immediate vicinity.

6.1 Site Reconnaissance

We explored the near surface soil conditions within exposed cuts at the back of the bench and along Bayshore Boulevard where the proposed construction is planned.

6.2 Field Investigation

We observed landslide debris and perhaps quarry tailings within the exposed excavation cuts along the western part of the proposed construction. We also observed similar material along the cut at the base of the slope along Bayshore Boulevard. We found the landslide deposits were consistent with observations made at adjacent sites and they generally consisted of lean clay with sand and gravel; gravel and cobbles with sand; cobbles and boulders. Franciscan Complex sandstone (KJsk) is exposed in the northeast corner or the site within the cut along Bayhore Boulevard. The sandstone is thinly to thickly bedded and dips range from 25-35 degrees to the east and is moderately hard, weak to moderately strong, and moderately to deeply weathered.

Free groundwater was not observed during our field studies. Groundwater levels may vary seasonally and depend on a variety of factors, such as landscaping irrigation upslope of the site, localized dewatering, and seasonal rainfall. Groundwater is typically encountered at the interface between geologic contacts (i.e. soil and bedrock) and within sand lenses in native clays. Perched groundwater and seasonal springs were not observed during this investigation but may be present within the general site vicinity.

7.0 SUBSURFACE CONDITIONS

Our understanding of the subsurface conditions at the subject site is based on a data review, our limited geotechnical and geologic reconnaissance (described above), and our familiarity with the project area. Where explored, subsurface conditions generally consist of native landslide debris (Ql), which in turn is underlain by sandstone and shale bedrock of the Franciscan Complex (KJsk) at depth. An idealized cross section of interpreted subsurface conditions in the west-east (upslope-downslope) direction through the available subsurface boring data by others is presented in Figure 6. Figure 6 should be considered preliminary as the actual boring data was not available at this time. The subsurface conditions described herein should be verified in the field during construction.

Landslide Deposit (Ql): Native landslide deposits were encountered below the undocumented artificial fill layer at GGI-12. Where explored, we estimated this native soil layer to be about 7 feet to 10 feet thick, and generally consisted of stiff to hard sandy clay with varying amounts of gravel. Other landslide deposits may exist at the site where not explored.

Bedrock (KJsk): Based on the data from previous reports, we interpret as sandstone bedrock of the Franciscan Complex. The bedrock encountered in the borings was generally light gray to yellow-brown when weathered and yellowish orange oxidized, of low to moderate hardness, friable to weak, and moderately to deeply weathered.

Groundwater: Free groundwater was not encountered in our borings to the maximum depths explored during our field investigation. Furthermore, we did not observe any evidence of groundwater seepage at the site during our investigation and reconnaissance. Groundwater levels may vary seasonally and depend on a variety of factors, such as landscaping irrigation upslope of the site, localized dewatering, and seasonal rainfall. Groundwater is typically encountered at the interface between geologic contacts (i.e. soil and bedrock) and within sand lenses in the native clays. Perched groundwater and seasonal springs are present within the general site vicinity.

8.0 GEOLOGIC HAZARDS

A geologic hazard may be defined as an adverse geologic condition capable of causing damage or loss of property and life. In general, geologic hazards present in the San Francisco Bay Area include, but are not limited to ground shaking, surface fault rupture, soil liquefaction and associated land movements, cyclic densification, tsunamis, landslides and rock falls, and expansive soil.

A discussion regarding geologic hazards relevant to the site and vicinity follows.

8.1 Ground Shaking

The seismicity of the site is governed by the activity of the San Andreas Fault, although ground shaking from future earthquakes on other nearby faults, would also be felt at the site. The intensity of earthquake ground motion at the site will depend upon the characteristics of the generating fault, distance to the earthquake epicenter, magnitude and duration of the earthquake, and subsurface conditions beneath the site (Site Class).

Strong to very strong ground shaking could occur at the site during a large earthquake on one of the nearby faults shown on Figure 5.

8.2 Fault Rupture

Historically, ground surface displacements closely follow the trace of geologically young faults. No active faults are known to exist within the City and County of San Francisco. The project site is not mapped within an Alquist-Priolo Earthquake Fault Zone and no faults have been mapped as passing through the property (Hart and Bryant, 1997; Jennings and Bryant, 2010; and Schlocker, 1974). Furthermore, no ground surface rupture has been reported near the site after historic earthquakes (Youd and Hoose, 1978).

8.3 Slope Stability

The site is located within an earthquake-induced landslide hazard zone (Figure 3). The site has experienced a long history of slope instability influenced by grading. Evacuation and grading for the quarried area and Bayshore Boulevard, have affected slope stability at the site and predate the period of our aerial photograph review.

The nearest evidence of recent slope failure can be observed directly above and adjacent to the existing MK Pipelines property which sits within the base of a historic large landslide. Evidence of the landslide includes a prominent arcuate scarp directly above the existing property as well as what appears to be the toe or historic debris flow of landslide material protruding from the shore into Brisbane Lagoon to the east of the property, across Bayshore Boulevard. It is possible that the excavation of the toe of the slope at the site for the construction of Bayshore Boulevard and Bayshore Railroad likely destabilized the slope and influenced the large landslide described above. Furthermore, the 1896 San Mateo 15-minute topographic maps show the protrusion or landslide toe described above but also show Bayshore Boulevard, suggesting that the toe of the slope may have been excavated in the mid to late 1800's and the origin, cause and timing of landsliding in this area is unknown.

Historic aerial photographs indicate a road previously crossed the hillslope from north to south. Approximately 325 feet of this road is missing within the scarp above MK Pipelines; Google Maps shows this missing section of road labeled as: "Washed out Roadway 1936" Aerial photographs dating as early as 1941 show a landslide directly within and surrounding the property currently occupied by MK Pipelines. While little or no vegetation is observable within the landslide scar, the 1941 photo shows at least 4 structures standing within the boundaries of the slide, and what appears to be a recently repaired section

of Bayshore Boulevard directly below the landslide, suggesting that the landslide was active during this period.

Geotechnical borings conducted by Gilpin Geosciences (2014) and Treadwell and Rollo (2007) within adjoining parcels to the northwest and west were also reviewed for this investigation. The nearest geotechnical boring, boring GGI-5 is located upslope of the MK Pipeline site at an elevation of 125'. Boring log data from GGI-5 shows an approximately 25-foot-thick section of landslide material overlying bedrock at an elevation of approximately 100 feet.

8.4 Soil Creep

Soil creep is the slow downslope movement of soil with the annual cycle of wetting and drying under the influence of gravity. Soil creep typically occurs along geologic contacts and is exacerbated by the presence of weak soils, water and relatively steep slopes and/or geologic contacts. Creep is often observed where undocumented fill is present.

While the potential for soil creep cannot be eliminated, mitigation for downslope creep movement of clayey soil and/or undocumented artificial fill on sloping ground may be achieved addressing undocumented fill, flattening or terracing slopes, proper surface and subsurface drainage systems, and by engineering new fills in place.

Given the existing and proposed slopes at the site, we anticipate the potential for soil creep to impact the proposed development is low provided our recommendations are incorporated into the final design and construction.

8.5 Liquefaction and Associated Hazards

When saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures and sand boils are evidence of excess pore pressure generation and liquefaction.

The site is not located within a liquefaction hazard zone (Figure 3) and there is no historical evidence of liquefaction occurring at the site or the general vicinity. Furthermore, sands or free groundwater were

not encountered in our borings to the maximum depths explored. Therefore, the potential for liquefaction to occur at the site is low.

8.6 Cyclic Densification

Cyclic densification is a phenomenon where, primarily dry (non-saturated), grains of sand are reoriented due to shaking which results in densification. Other soils such as weak undocumented fill, collapsible soils and gravels may also be subject to densification during strong shaking on a nearby fault. Cyclic densification can occur at any level of shaking from multiple sources; it is considered a geologic hazard when the source of the shaking is an earthquake. Soils most susceptible to cyclic densification are very loose to loose clean sands.

We judge the potential for cyclic densification to impact the proposed improvements is low since it is unlikely that any deposits of clean sands are present.

9.0 CONCLUSIONS

From a geotechnical and geologic standpoint, we conclude the proposed site may be utilized as an equipment yard for storage. The primary geotechnical considerations for the site with respect to the proposed development are the existing landslide and slope stability.

A summary of geologic and seismic hazards and their potential impact to the proposed development is summarized in Table 1 below.

TABLE 1: POTENTIAL IMPACT OF GEOLOGIC AND SEISMIC HAZARDS ON SITE DEVELOPMENT

Type of Geologic/Seismic Hazards	Impact to Site Development Mitigation of Hazard
Geologic Hazards	
Soil Creep	Low Impact: The upper clayey soil, particularly the undocumented artificial fill, could be prone to slow continuous downslope creep over time.
	Mitigation: Properly designed temporary shoring and permanent retaining walls
Expansive Soil	Low Impact: Where explored, the upper fill and native soils appeared to exhibit a low plasticity; therefore, the potential for expansive soil movement appears to be low.
	Mitigation: Follow the foundation and slab-on-grade subgrade recommendations.
Landslides	High Impact: Landslides mapped within or adjacent to the site.
	Mitigation: Hazard to proposed construction can be reduced by engineering design.
Water Seepage	Unknown Impact: Seepage should be anticipated in the planned excavations.
	Mitigation: Install proper drainage systems as recommended.
Seismic Hazards	
Seismic Ground Shaking	High Impact: Site within close proximity of earthquake sources.
	Mitigation: Hazard to proposed construction can be reduced by engineering design.
Fault Rupture from Active Faults	Low Impact: Nearest mapped active fault trace is about 4.5 miles from the site.
	Mitigation: None required.
Fault Rupture from Secondary Faults	Low Impact: No secondary faults have been mapped as passing through the site.
	Mitigation: None required.
Earthquake-Induced Landsliding	High Impact: Landslides have been mapped within or adjacent to the site.
	Mitigation: Hazard to proposed construction can be reduced by engineering design.
Liquefaction	Non-existent Impact: The site is considered to have no liquefaction hazard potential.
	Mitigation: None required.

The remainder of this section presents our conclusions regarding these and other geotechnical considerations.

9.1 Existing Landslides and Slope Stability

A complete study of the site and potential slope instability is beyond the scope of this report; however, based on our evaluation of the available data, we conclude that there does currently exist a potential for future land sliding at the site and vicinity: shallow failures may occur due to the steepness and material strength of the near surface materials on the hillside above and deep seated failures may occur due to discontinuities, shear zones and fracturing of the bedrock below the site. We further conclude that potential near surface slope failures associated with minor cuts and fills needed for the construction of a storage yard can be mitigated utilizing an engineered retention system such as soldier pile and lagging. We conclude that construction of a storage yard can reduce the existing potential for near surface slope failure at the site. Furthermore, we judge that provided our conclusions and recommendations are incorporated into the final design, the potential for minor cuts to impact potential deep-seated failures (if present) is low. Similar, adjacent sites have been designed for significantly greater cuts. We conclude the following should be implemented into development of the site for use as a storage yard.

- A buffer zone approximately 8 feet wide should remain in place between the proposed storage yard and the toe of the behind (to the west/northwest of) the storage yard. This toe has been defined on the plans prepared by Savior P. Micallef Land Surveying, titled, “Site Plan MK Yard, LLC 3708 Bayshore Blvd,” and dated November 8, 2022. The buffer zone may encroach and new wall cut into a minor portion of the defined toe where the existing slope is shallower than 2:1 (horizontal:vertical) and adjacent to the southwest and northwest parcel boundaries.
- A buffer zone of at least 10 feet in width should remain in place between any fill required for the proposed storage yard and Bayshore Boulevard.
- The volume of materials cut should not exceed that filled across the site (not including new pavement materials) such that the average overburden is not reduced.
- Cuts should be limited to a maximum of about six feet along the western side of the proposed storage yard.
- A permanent retaining structure utilizing deepened foundations should be constructed where cuts or fill are required.
- Fills along Bayshore boulevard are engineered and bear on stable materials or foundations.
- All grading and structural plans are reviewed by the geotechnical engineer.

Provided that the proposed storage and parking area is constructed in accordance with the standard of care for excavations and the recommendations presented in this report, and we are given the opportunity to observe actual conditions exposed during excavation and construction of below grade structures, the potential for the proposed development to impact the stability of the existing site slopes is low. Installation of a soldier pile system should, where properly designed, reduce the potential for instability within the proposed storage yard.

10.0 RECOMMENDATIONS

This section presents our geotechnical recommendations regarding site preparation and grading, pavement design, design of retaining walls, groundwater and surface drainage, and seismic design parameters.

10.1 Site Preparation and Grading

Areas to be graded should be cleared of vegetation, deleterious materials, existing slabs, pavements and other existing improvements where grading is to be performed. Following site preparation, the geotechnical engineer should check site conditions, any excavations, any soil subgrade and any proposed fill materials. The geotechnical engineer should check for the presence of potentially weak soil. Stripped materials can be stockpiled for future use or disposed of; these materials should be approved for use on a case-by-case basis.

After site preparation, we anticipate the majority of the site grading will consist of cuts and fills to level the proposed storage yard site.

All subgrade should be relatively level, free of any debris or loose/disturbed material, and should be kept moist until covered. Minor grades may be required to facilitate the flow of surface run-off and groundwater.

The contractor should be familiar with the use of standard types of compaction equipment for different soil types and moisture conditioning of soil. We can provide additional recommendations regarding moisture conditioning, if required.

10.1.1 Temporary and Permanent Slopes

We anticipate both temporary and permanent slopes will be required to develop the site as planned. Temporary slopes should not exceed a 1:1 slope (horizontal:vertical). Shallower slopes may be required depending on the materials observed. Minor vertical cuts of less than 5 feet may utilized without shoring; however, where these cuts are below the exiting slope to the west, they should be performed in sections not exceeding about 10 feet in total width unless approved by the geotechnical engineer on-site. Non-sequential sections may be excavated at once as long as there is at least 20 feet between any given section.

Permanent slopes should be no steeper than 2:1 (horizontal:vertical) on average. All temporary and permanent slopes should be reviewed by the geotechnical engineer prior to construction.

10.1.2 Engineered fill

We recommend engineered fill consist of either on-site soil, select fill (imported to the site). Other options may be used in lieu of engineered fill such as lean concrete or geofoam; however, the geotechnical engineer should be consulted prior to the placement of any fill materials. We recommend that the geotechnical engineer be present prior to and during the placement of any fill material.

Prior to the placement of engineered fill, the soil subgrade should be checked and if required, moisture conditioned and compacted to accept new fill materials. Where weak soils are observed, additional methods such as over excavation and replacement, utilization of a geotextile or geogrid, or the use of admixtures may be required to stabilize a subgrade.

On-site soil should be approved by the geotechnical engineer before use. Any organic or other deleterious materials should be removed. Any chunks of soil, large rock fragments or cobble greater than 4-inches in smallest diameter should be either crushed or removed prior to placement.

Select fill should consist of soil that is non-corrosive, free of organic matter, free of (or tested for) hazardous substances, smaller than d responsibility to check that any fill meets the project requirements and for any potential negative impact it may have on the site. A sample of the proposed fill materials should be submitted to the geotechnical engineer for testing at least three days prior to use at the site. Analytical (environmental) testing is beyond the scope of geotechnical engineering, but we may be able to facilitate testing upon request.

Engineered fill should be moisture-conditioned, placed in horizontal layers (lifts), and compacted. The required lift thickness will depend on the materials and compaction equipment used but should not exceed 12-inches. In most cases, soil lifts should not exceed eight inches where lightweight compaction equipment is used. The compaction equipment selected by the contractor should match the material type and compaction requirements.

TABLE 2
TYPICAL COMPACTION REQUIREMENTS

CASE	RELATIVE COMPACTION[1] (percent)	MOISTURE CONDITIONING
General Fill	90+	above optimum
Pavement Subgrade	90+	above optimum
Pavement Base	95+	above optimum
Foundation Subgrade	95+	above optimum
Exterior Flatwork	90+	above optimum
Utility Trenches	95+	Above optimum
Fills Greater Than Five Feet Thick	95+	above optimum
Clean sand and gravel	95+	Above optimum
Expansive Soil (all cases)	88 – 93	3 percent above optimum

Table 2 presents typical compaction and moisture requirements for general cases. Fills deeper than five feet should be compacted to at least 95 percent relative compaction. Specific compaction requirements

[1]Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material, as determined by the ASTM D1557-00 laboratory compaction procedure.

should be addressed during final design and in the field. The geotechnical engineer may utilize different methods to estimate whether compaction has been achieved that may or may not include density testing to determine relative compaction. Compaction requirements are subject to change depending on actual conditions. The requirements presented are only valid where placement of engineered fill is observed by the geotechnical engineer.

10.1.3 Exterior Flatwork and Pavements

Exterior flatwork and pavements within the public right of way (sidewalk and driveway) should be constructed in accordance with local requirements. Exterior flatwork and pavements within the property may either be designed by the engineer of record, installed per the manufacturer's recommendations or per the means and methods of the contractor. The geotechnical engineer should check the subgrade prior to the placement of any materials.

Subgrade for exterior flatwork and pavements should extend at least three feet beyond the edges of the proposed area of improvement where space and site geometry permits. At a minimum, subgrade should be scarified at least 8 inches, moisture conditioned and compacted.

10.1.4 Utility Trench Backfill

Where underground utilities are proposed, utility trenches should conform to the current CAL-OSHA requirements. To provide uniform support, pipes or conduits should be bedded on a minimum of four inches of sand or fine gravel. After the pipes and conduits are tested, inspected (if required) and approved, they should be covered to a depth of six inches with sand or fine gravel, which should be mechanically tamped.

Backfill for utility trenches should be compacted according to the recommendations presented for engineered fill. Jetting of trench backfill should not be permitted. Special care should be taken when backfilling utility trenches beneath exterior flatwork and pavements. Settlement due to improperly placed engineered fill may result in excessive differential settlement and damage.

10.2 Pavement Design

The State of California flexible pavement design method was used to develop the recommended asphalt concrete (AC) pavement sections. The final soil subgrade in pavement areas will likely consist of fill. We conservatively assumed a resistance value (R-value) of 10 for pavement design, which is representative of

low-plasticity clayey sand and clayey gravel materials. The R-value should be confirmed by further testing once the road subgrade is exposed or the fill source for road subgrade is identified.

Table 3 presents our pavement section recommendations for traffic indices (Tis) of 4.5, 5.0, 6.0, 7.0 and 9.0. Actual TIs should be determined through a traffic engineer's analysis of expected automobile and truck traffic at the site.

TABLE 3
RECOMMENDED ASPHALT PAVEMENT SECTIONS (INCHES)

TI	Asphaltic Concrete (inches)	Class II Aggregate Base (inches)
4.5	2.5	8.5
6.0	3.5	11.5
7.0	4.0	14.5
9.0	5.5	19.0

The soil subgrade beneath AC pavements should be prepared and compacted in accordance with the recommendations presented in this report. In addition, the subgrade should be a firm and non-yielding surface. The subgrade should be proof-rolled to confirm it is non-yielding prior to placing the aggregate base. Care should be taken to properly moisture condition the soil subgrade and not allow the subgrade to dry prior to placement of the aggregate base. If the subgrade is allowed to dry out, it should be ripped, moisture conditioned and recompacted. The Class 2 aggregate base should be moisture-conditioned to near optimum moisture content and compacted to at least 95 percent relative compaction.

For all impermeable pavement types, to prevent irrigation water from entering the pavement sections, curbs adjacent to landscaped areas should extend through the aggregate base and at least three inches into the underlying soil. In addition, permeable pavement sections should incorporate a vertical impermeable barrier where they are immediately adjacent to non-permeable pavements and flatwork.

10.3 Retaining Wall Design

We anticipate soldier piles extending through the landslide deposits and into competent bedrock will be utilized for both temporary and permanent support

10.3.1 Drilled Piers (Soldier Piles)

We recommend that soldier piles gain vertical support in friction from the bedrock below the mapped landslide deposits at the site. We recommend that where piers are utilized for lateral support they extend into the bedrock at least twice the height of the retained height. Figure 6 may be used to estimate the depth to bedrock for planning purposes.a

For piers spaced no closer than three pier diameters, center to center. We recommend designing drilled piers using skin friction values of 500 and 650 psf for dead-plus-live and total loads, respectively, for loads acting in compression. The allowable uplift capacity of the drilled piers may be taken as 80 percent of the capacity in compression.

Drilled piers may utilize passive pressure for lateral resistance below the bottom of the undocumented fill using a lateral earth pressure corresponding to an equivalent fluid weight of 300 pcf up to a maximum uniform pressure of 2,000 psf.

The passive resistance values include a factor of safety of about 1.5 and may be used in combination without reduction.

The bottoms of the pier holes should be free of debris and water before placement of concrete. The drilling contractor should be familiar with difficult drilling conditions as blocks of bedrock may be encountered within the landslide deposit. Casing may be required locally to prevent caving. We do not anticipate groundwater will be encountered during pier drilling. If groundwater is encountered, however, the pier hole should be pumped dry prior to placement of concrete. If the hole cannot be pumped dry prior to placement of concrete, then the concrete should be placed by tremie methods. Concrete should be placed on the same day the holes are drilled.

We should review the final development plans and modify our recommendations regarding drilled piers prior to the final design submission.

10.3.2 Lateral Earth Pressures

Our recommended lateral earth pressures are presented in Table 4 below. Lateral earth pressures are presented for two cases: 1) Where cuts are required into existing grades along the rear of the proposed storage yard and 2) Where fills are property benched into place behind new retaining walls. A creep force is included for walls which are cut into existing grade. We do not anticipate a seismic increment will be required for design since the walls should be less than six feet in total height. The designer should consider the freeboard in the total wall height for temporary loading due to site erosion. The lateral earth pressures do not include dynamic loading due to rockfalls or instability of the slope above.

Surcharges due to storage of equipment and materials, as well vehicular loading should be evaluated as plans are finalized; however, a 250 pounds per square foot uniform loading on the back of site walls may be used for preliminary design and should be confirmed by the designer.

TABLE 4
LATERAL EARTH PRESSURES FOR RETAINING WALLS

Design Pressure	Walls Supporting Cuts	Walls Supporting Engineered Fill
ACTIVE	90 pcf	40 pcf

The equivalent lateral earth pressures presented above are for walls less than about six feet in height and which are back drained such that groundwater pressures will not build up behind these walls. Drainage may consist of premanufactured panels, French drains, or walls which allow the flow of water through them (lagged walls). Where walls are not backdrained, we should be consulted to provide revised lateral earth pressures.

10.4 Surface Drainage

Positive surface drainage should be provided to direct surface water away from new foundation elements and the top of any wall or slopes. Under no circumstances should any surface run-off be re-directed to any slope on-site. Any collected runoff, including water from downspouts should be discharged into the sewer system or a containment system.

10.5 Groundwater and Site Drainage

The proposed site excavations may encounter seasonal springs at the interface between geologic contacts. Furthermore, groundwater seepage may occur in the future even if seepage is not observed during construction. Where groundwater or evidence of groundwater is encountered during construction, we should be notified to evaluate if additional measures are required to control the flow of groundwater at the site.

The final design should include measures to intercept groundwater where it may impact the proposed construction. Where collected, groundwater should be discharged to a suitable collection point.

11.0 ADDITIONAL GEOTECHNCIAL SERVICES

Our report is based on a limited data review, widely spaced exploration points and preliminary development plans. Future geotechnical services should include: consultation during final design, plan and calculation review and construction observation.

11.1 Consultation During Final Design

We can consult with the design team during the development of the structural plans, civil plans, and selection of the contractor. We should review the geotechnical aspects of the project documents prior to construction. Our role as geotechnical engineer is contingent on this review.

11.2 Construction Observation and Special Inspection

During construction, our staff can provide on-site observation and testing during site preparation, temporary excavations, engineered fill placement, foundation installation, and other geotechnical aspects of the project.

Our observations will allow us to compare actual with anticipated subsurface conditions and to verify that the contractor's work conforms to the geotechnical aspects of the plans and specifications.

Our role as geotechnical engineer of record is contingent on performing geotechnical construction observations. Our scope during construction can be provided once final plans have been developed and approved.

12.0 LIMITATIONS

This geotechnical and geologic hazard study has been conducted in accordance with the standard of care commonly used as state-of-practice in the profession. No other warranties are either expressed or implied.

The recommendations made in this report are intended to protect the life and safety of occupants within the structure during a major seismic event on a nearby fault; damage to the structure and other improvements may still occur due to seismic forces on the proposed improvements. The recommendations made in this report are based on a limited subsurface investigation. If the subsurface conditions or the scope of the proposed improvements deviate from those described in this report, we should be notified immediately to provide supplemental recommendations as required as required by the actual conditions.

The conclusions and recommendations presented herein are subject to change based on our observations during construction. It is the responsibility of the contractor to notify us at least 48 hours in advance to request construction observation and/or special inspection. The design and implementation of any waterproofing or subsurface drainage system is beyond the scope of our services. Corrosivity analysis of the near-surface soils is beyond the scope of this report.

13.0 REFERENCES

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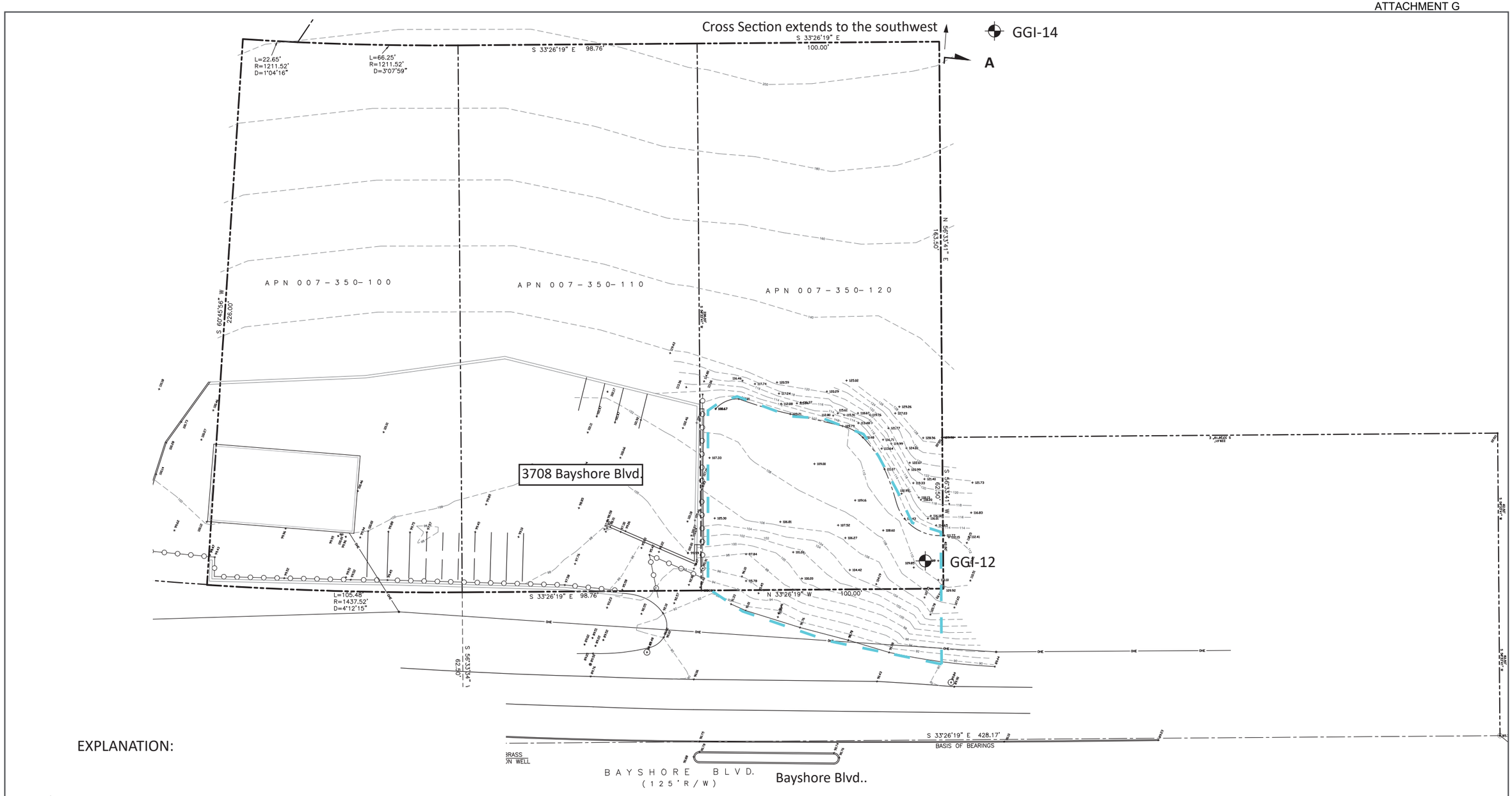
14.0 AERIAL PHOTOGRAPHS REVIEWED

Date	Photo Number	Scale	Type
5/1/30	C-888-12	1:16,200	B&W
4/23/41	C-6660-325,326,	1:7,200	B&W
1/1/43	DDB-2B-133	1:20,000	B&W
7/29/46	GS-2-123	1:23,600	B&W
9/8/56	GS-VLX 1-64	1:23,600	B&W
7/10/63	CAS_SF-1-55	1:20,000	B&W
5/1/65	CAS 65-130, 1-83,136	1:12,000	B&W

FIGURES



EXPLANATION:

GGI-12 — Approximate location of Geotechnical Boring performed by Gilpin Geosciences, Inc. (unpublished) October 2014

Approximate extent of proposed construction

A A' — Cross section location

A' — Cross Section extends to the northeast

0 40 feet

Approximate scale

Reference: Savior P. Micallef Land Surveying, Tentative Parcel Map of MK Pipeline, Inc. 3708 Bayshore Blvd., Brisbane, CA, dated 16 June 2022

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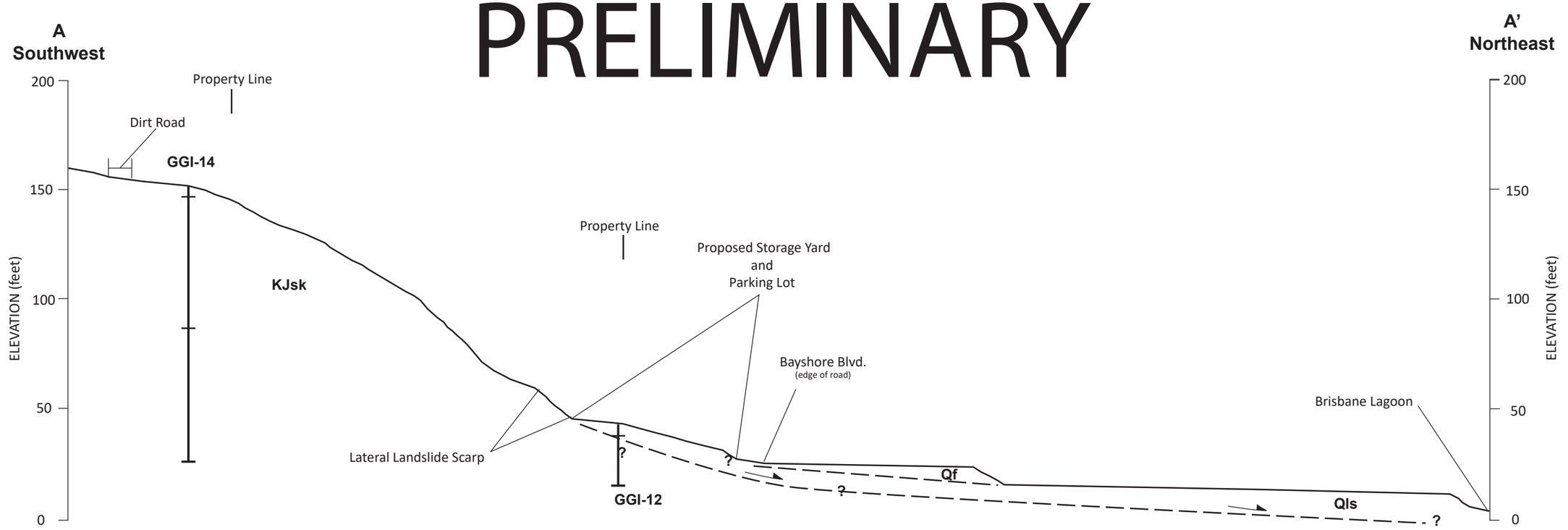
Brisbane, California

SITE PLAN

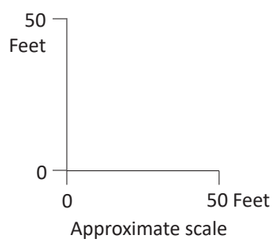
11/16/2023	23-230301-02	Figure 2

PRELIMINARY



EXPLANATION:

GGI-12	Approximate location of Geotechnical Boring performed by Gilpin Geosciences, Inc. (unpublished) October 2014
	Approximate Geologic Contact
Qaf	Artificial Fill
Ql	Sandy Clay and Clayey Sand with Gravel (Landslide Deposit)
KJsk	Sandstone and Shale Bedrock (Franciscan Complex)



Notes:
1. Geologic interpretation based on limited subsurface exploraiton, actual conditions may vary and should be verfied in the field by a competent person.
2. Line of sections shown on Site Plan, Figure 2.
3. No vertical exaggeration (Horizontal = Vertical Scale)

References: 1. BKF Engineer(4/28/08)
2. Savior P. Micallef Land Surveying, Tentative Parcel Map of MK Pipeline, Inc. 3708 Bayshore Blvd., Brisbane, CA, dated 16 June 2022

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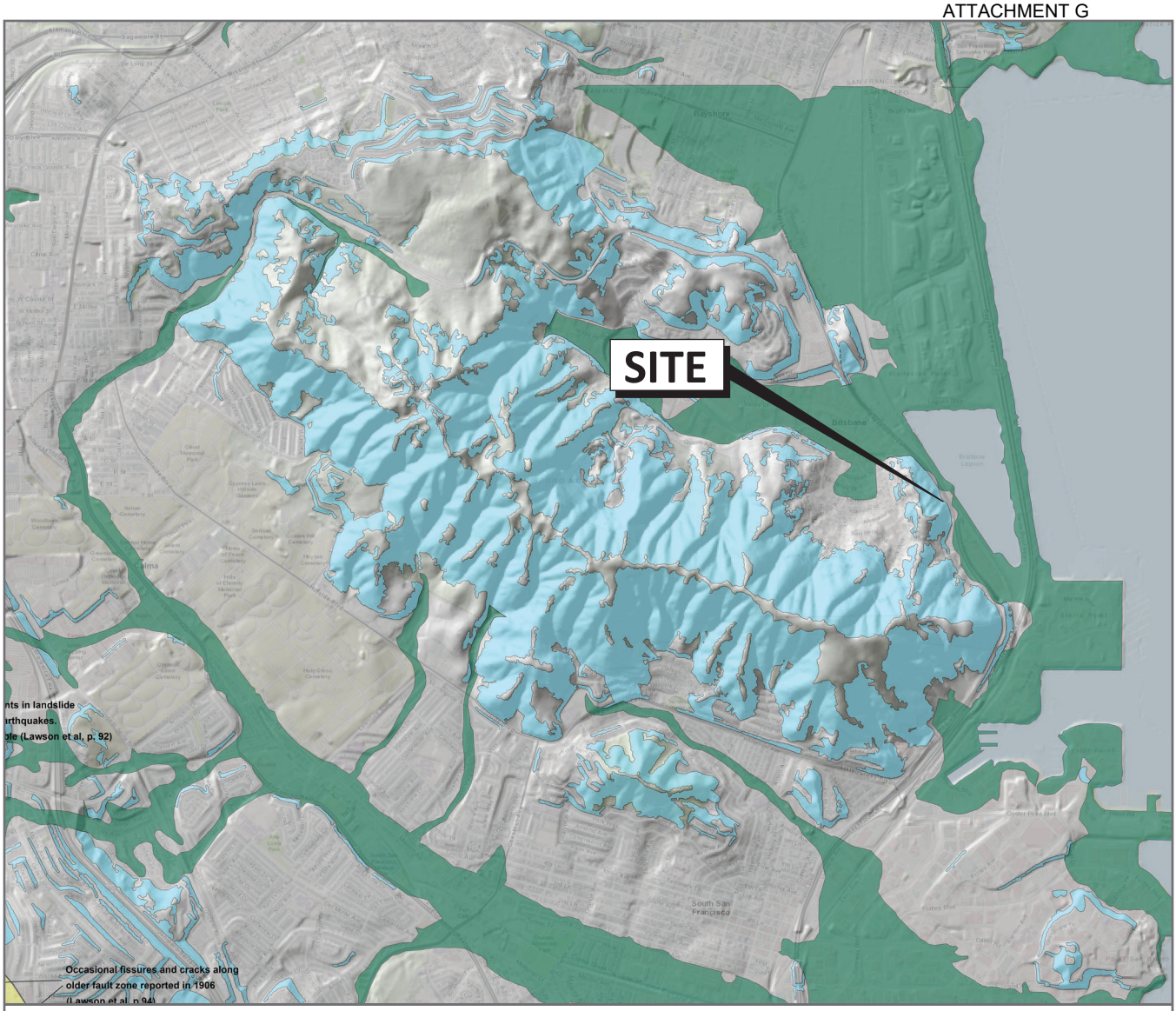
IDEALIZED CROSS SECTIONS A-A'

11/16/2023 | 23-230301-02 | Figure 6



EXPLANATION

Liquefaction: Areas where historic occurence of liquefaction, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Earthquake-Induced Landslides: Areas where previous occurence of landslide movement, or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

0 1000 2000 Feet

Approximate scale

Base map: State of California, Seismic Hazard Zones San Francisco South Quadrangle, Official Map, Released September 23, 2021.

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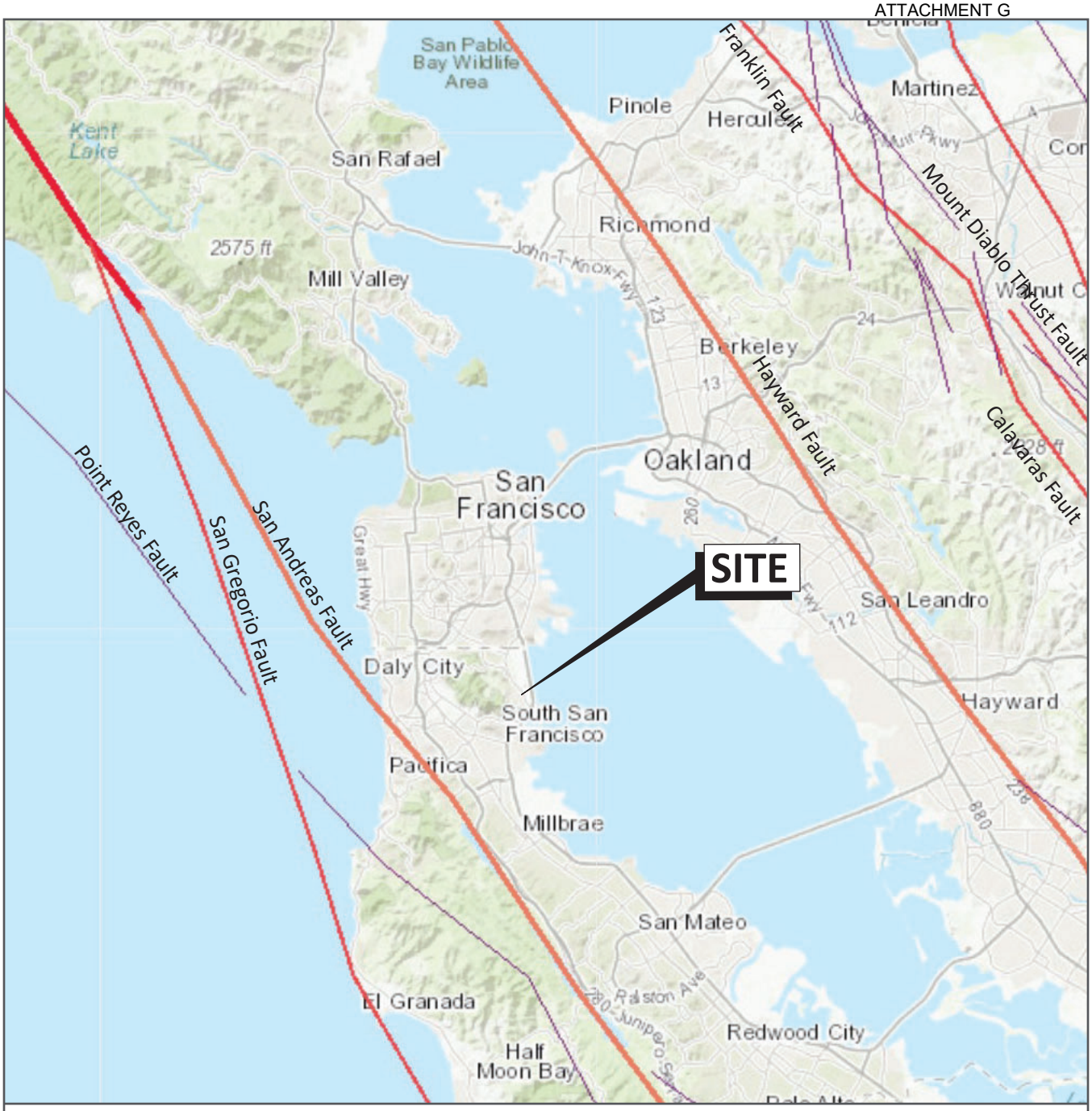
CGS SEISMIC HARZARDS

11/16/2023	23-230301-02	Figure 3



EXPLANATION

UCERF3 Fault Model
Slip Rates (mm/yr)

- 16-25
- 6-15
- 2-5
- 1-2

N

0 7 Miles

Approximate scale

Base map: Earthquake Shaking Potential for California (2016), D. Branum, R. Chen, M. Petersen and C. Wills. California Geological Survey, United States Geological Survey, Map Sheet 48

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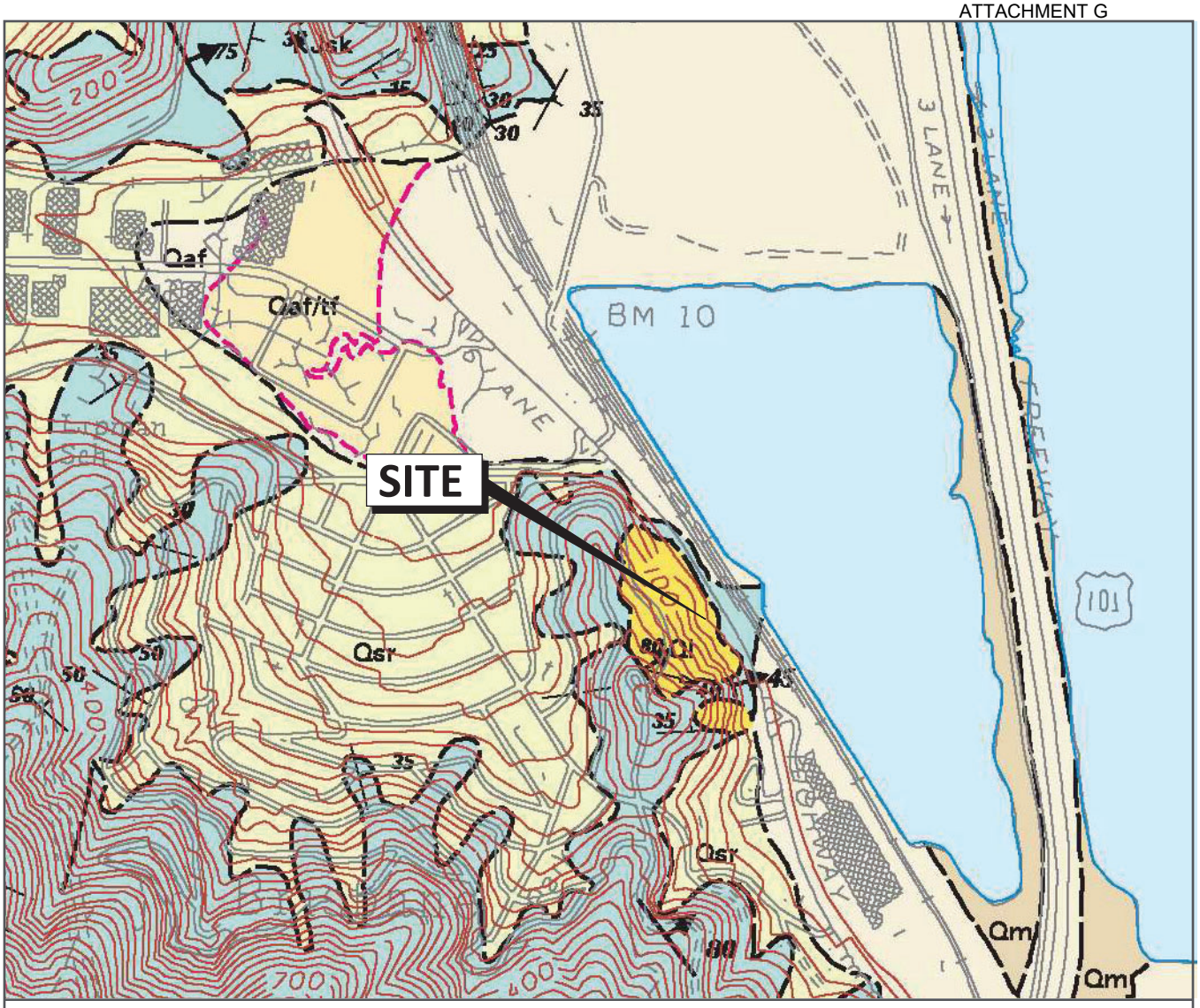
REGIONAL FAULT MAP

11/16/2023	23-230301-02	Figure 4



EXPLANATION

Qaf	Artificial Fill
Ql	Landslide Deposits (Quaternary)
Qsr	Slope Debris and Ravine Fill (Quaternary)
KJu	Sheared Rocks (Franciscan Formation)
Qm	Bay Mud
KJsk	Sandstone and Shale

Geologic contact: dashed where approximate and dotted where concealed, queried where uncertain

N

0 500 ft

Approximate scale

Preliminary geologic map of the San Francisco South 7.5' quadrangle and part of the Hunters Point 7.5' quadrangle, San Francisco Bay area, California: A digital database By: M.G. Bonilla, 1998

divis CONSULTING, INC. GEOTECHNICAL ENGINEERING

3708 BAYSHORE BLVD
Brisbane, California

REGIONAL GEOLOGIC MAP

11/16/2023	23-230301-02	Figure 5

COTTON, SHIRES AND ASSOCIATES, INC.
CONSULTING ENGINEERS AND GEOLOGISTS

December 20, 2023
J6023

TO: Jeremiah Robbins
Associate Planner, Community Development
CITY OF BRISBANE
50 Park Place
Brisbane, CA 94005

SUBJECT: **Geologic and Geotechnical Peer Review**
RE: Brennan, Proposed Equipment Yard Enlargement, and Retaining Wall and Grading
3708 Bayshore Boulevard
APN: 007350120

At your request, we have completed a geologic and geotechnical peer review of the materials provided below:

- Divis Consulting Inc., Geotechnical Report and Geologic Hazards Evaluation, 3708 Bayshore Boulevard, Brisbane, California 94005, Assessors Block APN 007-350-120 (report), dated November 16, 2023; and

- Kevin O'Connor, Inc., Preliminary Site Retaining Wall Plans, including: General Notes and Site Plan, Site Retaining Wall Plan and Details, Retaining Wall Elevations, Grading Plan and Details, Sections, and Grading Notes (6 Sheets), dated November 20, 2023.

In addition, we have reviewed pertinent maps and technical documents from our office files, reviewed aerial photographs, and completed a site reconnaissance.

DISCUSSION

Based on our review of the referenced documents, we understand that the applicant proposes to construct a soldier beam and wood lagging retaining wall located in the northeastern third of the property with the intention of extending out MK Pipeline's existing equipment yard and parking lot. The existing retaining wall located along the northern edge of APN 007-350-110 will be demolished in order to extend out the equipment yard and parking lot. The proposed retaining wall is intended to support cuts

into the toe of the adjacent slope of up to 6 feet high and fills up to about 4 feet high along the northeastern side of the property. Estimated earthwork quantities include approximately 793 cubic yards of cut and 30 cubic yards of fill. The site is located in a SCRO-1 Southwest Bayshore Commercial District zoning district associated with the City of Brisbane.

The property is not located within a California Geological Survey liquefaction hazard zone, but is located within a California Geological Survey earthquake-induced landslide hazard zone. The project is not located within a State designated Alquist Priolo/ Fault Rupture zone.

SITE CONDITIONS

The project site is currently undeveloped and characterized by moderately steep to very steep northeast-facing slope. Drainage is generally characterized by sheet flow to the northeast, intercepted by Bayshore Boulevard. The site is underlain, at depth, by sandstone and shale bedrock materials of the Franciscan Complex (mapping by USGS, Bonilla, 1998). The map identifies landslide deposits overlying the Franciscan Complex bedrock.

We reviewed historical aerial photograph imagery between the years of 1930 and 1984 to evaluate the site development history and landsliding hazards. In 1930, Bayshore Boulevard has already been constructed, but the property appears to be undeveloped. The property is within the limits of a large landslide that measures approximately 600 feet long and 300 feet wide. The top of the landslide headscarp is located near the top of the ridgeline and the toe of the landslide appears to spill onto Bayshore Boulevard . Prominent ground cracks appear to be located immediately north of the landslide and several smaller landslides are present to the north and the south along Bayshore Boulevard. By 1941, the area immediately north of the landslide appears to have experienced shallow landsliding and erosion. The 3708 Bayshore Boulevard property appears to be developed with multiple structures located near the toe of the landslide. By 1965, the slopes immediately upslope (west) from the structures appear to have been graded back and a road providing access to the property from Bayshore Boulevard is present. By 1984, the 3708 Bayshore Boulevard property appears to have one large structure.

Based on the Section X.3 Slope Stability Figure X-E of the Brisbane General Plan, the site is located in an area with moderate susceptibility to seismically-induced landsliding. As noted in the Brisbane General Plan, we understand that in areas identified as prone to slope instability, the City requires soil and geologic investigations, mitigation measures for any grading and structural development, topographical data, and a

comprehensive and detailed slope analysis. The subject property is also located within a California Geological Survey (CGS) seismic hazard zone associated with the potential for earthquake-induced landsliding. The closest active trace of the San Andreas Fault is mapped approximately 4.6 miles southwest of the site.

GEOLOGIC AND GEOTECHNICAL EVALUATIONS

The Geotechnical Consultant (Divis Consulting) performed a site reconnaissance, and reviewed aerial photographs, available nearby reports, and geologic hazards to evaluate landslide hazards to the site. No subsurface exploration was performed as a part of this report. The Consultant identified that slope instability was a potential geologic hazard at the site and indicated that:

> *"The site is located within an earthquake-induced landslide hazard zone (Figure 3). The site has experienced a long history of slope instability influenced by grading. Evacuation and grading for the quarried area and Bayshore Boulevard, have affected slope stability at the site and predate the period of our aerial photograph review."*
>
> *"The nearest evidence of recent slope failure can be observed directly above and adjacent to the existing MK Pipelines property which sits within the base of a historic large landslide. Evidence of the landslide includes a prominent arcuate scarp directly above the existing property as well as what appears to be the toe or historic debris flow of landslide material protruding from the shore into Brisbane Lagoon to the east of the property, across Bayshore Boulevard. It is possible that the excavation of the toe of the slope at the site for the construction of Bayshore Boulevard and Bayshore Railroad likely destabilized the slope and influenced the large landslide described above. Furthermore, the 1896 San Mateo 15-minute topographic maps show the protrusion or landslide toe described above but also show Bayshore Boulevard, suggesting that the toe of the slope may have been excavated in the mid to late 1800's and the origin, cause and timing of landsliding in this area is unknown."*
>
> *"Historic aerial photographs indicate a road previously crossed the hillslope from north to south. Approximately 325 feet of this road is missing within the scarp above MK Pipelines; Google Maps shows this missing section of road labeled as: "Washed out Roadway 1936" Aerial photographs dating as early as 1941 show a landslide directly within and surrounding the property currently occupied by MK Pipelines. While little or no vegetation is observable within the landslide scar, the 1941 photo shows at least 4 structures standing within the boundaries of the slide,*

and what appears to be a recently repaired section of Bayshore Boulevard directly below the landslide, suggesting that the landslide was active during this period."

"Geotechnical borings conducted by Gilpin Geosciences (2014) and Treadwell and Rollo (2007) within adjoining parcels to the northwest and west were also reviewed for this investigation. The nearest geotechnical boring, boring GGI-5 is located upslope of the MK Pipeline site at an elevation of 125'. Boring log data from GGI-5 shows an approximately 25-foot-thick section of landslide material overlying bedrock at an elevation of approximately 100 feet."

The Geotechnical Consultant concluded the following:
"From a geotechnical and geologic standpoint, we conclude the proposed site may be utilized as an equipment yard for storage. The primary geotechnical considerations for the site with respect to the proposed development are the existing landslide and slope stability."

"A complete study of the site and potential slope instability is beyond the scope of this report; however, based on our evaluation of the available data, we conclude that there does currently exist a potential for future landsliding at the site and vicinity: shallow failures may occur due to the steepness and material strength of the near surface materials on the hillside above and deep seated failures may occur due to discontinuities, shear zones and fracturing of the bedrock below the site. We further conclude that potential near surface slope failures associated with minor cuts and fills needed for the construction of a storage yard can be mitigated utilizing an engineered retention system such as soldier pile and lagging. We conclude that construction of a storage yard can reduce the existing potential for near surface slope failure at the site. Furthermore, we judge that provided our conclusions and recommendations are incorporated into the final design, the potential for minor cuts to impact potential deep-seated failures (if present) is low. Similar, adjacent sites have been designed for significantly greater cuts."

CONCLUSIONS AND RECOMMENDED ACTION

The proposed equipment yard enlargement, retaining wall and grading project is constrained by: 1) an existing landslide with unknown thickness of landslide debris; 2) steep to very steep slopes that are potentially susceptible to instability, creeping soils, and debris flows; 3) earthquake induced landslides; and 4) anticipated strong seismic ground shaking. The Project Geotechnical Consultant, Divis Consulting, has completed a Geologic Hazards Evaluation and provided geotechnical design recommendations for the proposed retaining wall and grading project associated with extending MK Pipeline's existing equipment yard and parking lot. These recommendations include supporting the

proposed retaining wall on a drilled soldier pile pier foundation with minimum embedment into bedrock at least twice the height of the retained height. The Geotechnical Consultant recommends an 8-foot-wide buffer zone in between the proposed storage yard and the toe behind (to the west/northwest of) the storage yard and a 10-foot-wide buffer zone between any fill required for the proposed storage yard and Bayshore Boulevard. The Geotechnical Consultant also recommends the volume of materials cut should not exceed that filled across the site (not including new pavement materials) such that the average overburden is not reduced and cuts should be limited to a maximum of about six feet along the western side of the proposed storage yard.

CSA does not object to the concept of the proposed retaining wall and grading project with regards to the City of Brisbane's health, safety, comfort and general welfare of the persons residing or working in the neighborhood. We also estimate that a suitably designed deep foundation retaining wall (such as a soldier pile retaining wall) will not be injurious or detrimental to property and improvements in the neighborhood or the general welfare of the City. However, the site surface and subsurface conditions have not been comprehensively investigated, and the landslide depth and depth to bedrock have not been investigated.

Based on the location of the site within the limits of an existing landslide, and adjacent to Bayshore Boulevard, we find that the submitted report is incomplete and a supplemental mapping and investigation should be completed to: 1) investigate the site subsurface conditions; 2) evaluate the static and seismic landslide hazards at the site; and 3) develop site specific design criteria recommendations based on a site specific investigation to mitigate the landslide hazard. A lot of this size, with an existing landslide and a proposed soldier pile retaining wall would typically be investigated by at least 4 to 6 borings spaced along the inboard and outboard wall alignments, and a couple of boings in the center of the lot. All borings should extend at least 10 to 15 feet into the underlying in-place bearing bedrock material. A Certified Engineering Geologist should be involved in investigation to provide geologic mapping and subsurface exploration for the site. We recommend that the Geotechnical Consultant and Engineering Geologic Consultant address the following Items 1 and 2 prior to geological and geotechnical approval of the subject building permit application:

1. **Engineering Geologic Mapping and Subsurface Investigation** – The applicant's Certified Engineering Geologist should perform geologic mapping to identify the limits of the identified landslide on a site specific geologic map (Scale 1=10′ or 1=20′). The map should show geologic contacts of all surficial materials and have a recent topographic base (supplemental topographic surveying or integration of publicly available LiDAR may be required). The map should also show the proposed improvements (retaining wall) and grading. Subsurface investigation

(borings) should be drilled to investigate the subsurface conditions along the proposed retaining wall, areas of cuts and fills, and to evaluate the landslide hazard. Where the landslide and/or thick deposits of soil are mapped on slopes above the proposed retaining wall, these materials should be sampled for applicable laboratory testing. The subsurface investigation should also characterize the depth to bedrock along the wall alignment, and also sample bedrock. After detailed characterization of the landslide at the site, the Geologic Consultant should prepare a geologic map and cross section(s) depicting the results of the geologic mapping and subsurface investigation, including the anticipated depth to bearing material (bedrock) along the proposed wall alignment.

2. **Supplemental Geotechnical Analysis and Design Criteria Recommendations** – The Geotechnical Consultant should complete laboratory testing to calculate site specific active and passive pressures for the retaining wall design including residual shear strength parameters [ϕ'] in landslide debris which account for landslide loading, and peak shear strength parameters in weathered bedrock for passive resistance. The Geotechnical Consultant should then review the geologic cross section(s) and calculate suitable site specific active and passive pressures (note that typically landslide debris is neglected for passive resistance), minimum pier diameter, and embedment into bedrock (bearing material). The Geotechnical Consultant should also update, as warranted, their construction considerations (groundwater, caving, etc.) based on the site specific investigation.

The engineering geologic mapping and subsurface investigation should be compiled by the applicant's Certified Engineering Geologist, and the supplemental geotechnical analysis and design criteria recommendations should be completed by the Geotechnical Engineer and both submitted to the City for supplemental peer review by the City Geotechnical Consultant prior to geotechnical approval of the current permit submittal.

LIMITATIONS

This geologic and geotechnical peer review has been performed to provide technical advice to assist the City with its discretionary permit decisions. Our services have been limited to review of the documents previously identified, site reconnaissance and a preparation of this letter. Our opinions and conclusions are made in accordance with generally accepted principles and practices of the geotechnical profession. This warranty is in lieu of all other warranties, either expressed or implied.

Respectfully submitted,

COTTON, SHIRES & ASSOCIATES, INC.
CITY GEOTECHNICAL CONSULTANT

Andrew T. Mead
Principal Engineering Geologist
CEG 2560

David T. Schrier
Principal Geotechnical Engineer
GE 2334

DTS:CRS:AM

Recording requested by:
CITY OF BRISBANE

After recordation, return to:
CITY CLERK/CITY OF BRISBANE
50 PARK PLACE
BRISBANE, CA 94005

DECLARATION OF LOT MERGER

WHEREAS, MK YARD LLC, a California limited liability company, ("MK Yard") is the owner of certain real property situated in the City of Brisbane, County of San Mateo, State of California as described (i) in Exhibit A of this Declaration, (the Exhibit A real property being designated for San Mateo County property tax purposes as APN 007-350-100), (ii) in Exhibit B of this Declaration, (the Exhibit B real property being designated for San Mateo County property tax purposes as APN 007-350-110), and (iii) in Exhibit C of this Declaration, (the Exhibit C real property being designated for San Mateo County property tax purposes as APN 007-350-120); Collectively, the Exhibits A, B, and C real properties are commonly known as 3708 Bayshore Boulevard, Brisbane, CA 94005.

WHEREAS, MK Yard desires to merge the Exhibit A, B, and C real properties to form a separate parcel of land as described in Exhibit D and depicted in Exhibit E of this Declaration; and

THEREFORE, MK Yard HEREBY DECLARES merger of the Exhibits A, B, and C real properties as follows:

The properties described in Exhibits A, B, and C are merged and combined as one separate and complete parcel of land described in Exhibit D "Merged Parcel" and depicted in Exhibit E.

_____ _____
MK YARD LLC DATE
By Sean Brennan, President
3708 Bayshore Blvd., Brisbane, CA, 94005-1400

The foregoing Declaration of Lot Merger is hereby approved by the City of Brisbane.

_____ _____
JOHN SWIECKI DATE
Community Development Director
City of Brisbane

(GENERAL ACKNOWLEDGMENT BY NOTARY PUBLIC MUST BE ATTACHED)

EXHIBIT 'A'
APN 007-350-100
LEGAL DESCRIPTION OF EXISTING PARCEL FOR PURPOSES LOT MERGER BRISBANE, SAN MATEO COUNTY, CALIFORNIA

The land referred to herein below is situated in the City of Brisbane, County of San Mateo, State of California and is a portion of Rancho Canada De Guadalupe La Visitacion Y Rodeo Viego, more particularly described as follows:

Beginning at a point on the westerly line of Bayshore Highway, 779.86 feet due South and 1979.77 due East of the North corner of Block 3, as designated on the map entitled, "AMENDED MAP OF SUBDIVISION NO. 1, 2 AND 3 OF CITY OF VISITACION, SAN MATEO COUNTY, CALIFORNIA", which map was filed in the Office of the Recorder of the County of San Mateo, State of California, on October 14,1908 in Book 6 of Maps at Page 45, said POINT OF BEGINNING being opposite Station 107+63.26 of said highway;

Thence southerly along curve line , being the westerly line of said highway,105.48 feet;

Thence South 60° 28' 15" West, 226.00 feet;

Thence northerly along a curve line concentric with and 226.00 feet radially from the westerly line of Bayshore Highway 88.89 feet;

Thence North 56° 16' East, 226.00 feet to the POINT OF BEGINNING

Description prepared by Savior P. Micallef Land Surveying

Savior P. Micallef **L.S. 8289**

01-12-23

Date

EXHIBIT 'B'
APN 007-350-110
LEGAL DESCRIPTION OF EXISTING PARCEL FOR PURPOSES LOT MERGER BRISBANE, SAN MATEO COUNTY, CALIFORNIA

The land referred to herein below is situated in the City of Brisbane, County of San Mateo, State of California and is a portion of Rancho Canada De Guadalupe La Visitacion Y Rodeo Viego, more particularly described as follows:

Beginning at a point on the westerly line of Bayshore Highway, 779.86 feet due South and 1979.77 due East of the North corner of Block 3, as designated on the map entitled, "AMENDED MAP OF SUBDIVISION NO. 1, 2 AND 3 OF CITY OF VISITACION, SAN MATEO COUNTY, CALIFORNIA", which map was filed in the Office of the Recorder of the County of San Mateo, State of California, on October 14,1908 in Book 6 of Maps at Page 45, said POINT OF BEGINNING being opposite Station 107+63.26 of said highway;

Thence along the westerly line of said highway, North 33° 44' 00" West, 100.00 feet;

Thence South 56° 16' 00" West, 226.00 feet;

Thence South 33° 44' 00" East, 100.00 feet;

Thence North 56° 16' 00" East, 226.00 feet to the POINT OF BEGINNING.

Description prepared by Savior P. Micallef Land Surveying

Savior P. Micallef **L.S. 8289**

01-12-23

Date

PROFESSIONAL LAND SURVEYOR
SAVIOR P. MICALLEF
No.8289
EXP. 12/31/23
STATE OF CALIFORNIA

EXHIBIT 'C'
APN 007-350-120
LEGAL DESCRIPTION OF EXISTING PARCEL FOR PURPOSES LOT MERGER BRISBANE, SAN MATEO COUNTY, CALIFORNIA

The land referred to herein below is situated in the City of Brisbane, County of San Mateo, State of California and is described as follows:

Assessor's Highway Lot 4, Beginning at a point on the westerly line of Bayshore Highway known as State Highway IV-San Mateo-68-A, said point of beginning being South 56°16' 00" West, 62.50 feet and North 33° 44'00" West 100.00 feet from Station 107+63.26 B.C. of the Official Survey of the centerline of said highway;

Thence along said westerly line of said highway North 33° 44' 00" West, 100.00 feet;

Thence South 56° 16' 00" West, 226.00 feet;

Thence South 33° 44' 00" East, 100.00 feet;

Thence North 56° 16' 00" East, 226.00 feet to the Point of Beginning.

Description prepared by Savior P. Micallef Land Surveying

Savior P. Micallef **L.S. 8289**

01-12-23

Date

PROFESSIONAL LAND SURVEYOR
SAVIOR P. MICALLEF
No.8289
EXP. 12/31/23
STATE OF CALIFORNIA

EXHIBIT 'D'
APN 007-350-____
LEGAL DESCRIPTION OF MERGED PARCEL FOR PURPOSES LOT MERGER BRISBANE, SAN MATEO COUNTY, CALIFORNIA

The land referred to herein below is situated in the City of Brisbane, County of San Mateo, State of California and is described as follows:

POINT OF COMMENCMENT being Station 107+63.26 B.C. on the centerline of the Bayshore Highway known as State Highway IV-San Mateo-68-A;

Thence South 56°16' 00" West, 62.50 feet to a point on the westerly line of said highway right-of-way and the POINT OF BEGINNING;

Thence along the westerly line of said highway right-of-way, North 33°44'00" West, 198.76 feet;

Thence leaving said line of said highway, South 56°16'00" West, 226.00 feet;

Thence South 33°44'00" East, 198.76 feet to the beginning of a tangent curve concave right, having a radius of 1211.52 feet;

Thence along said curve through a central angle of 4°12'15" for a arc length of 88.90 feet;

Thence North 60°28'15" East, 226.00 feet to a point said westerly highway right-of-way to the beginning of a non-tangent curve concave left, having a tangent bearing of North 29° 31' 45" West and having a radius of 1,437.52 feet;

Thence along said curve highway right-of-way through a central angle 4°12'15" for an arc length of 105.48 feet to the POINT OF BEGINNING.

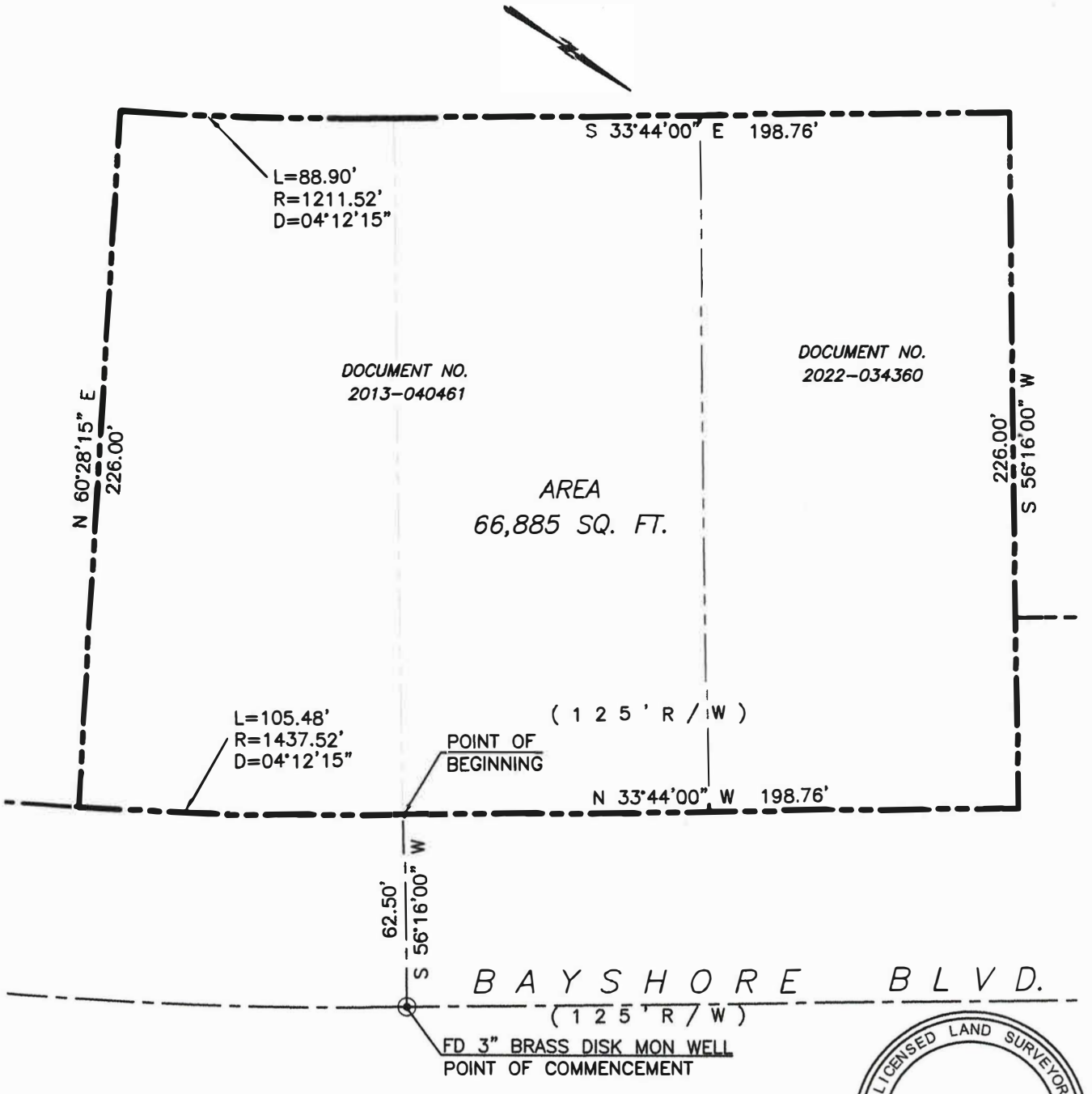
Containing an area of 66,885 sq ft, more of less.

END OF DESCRIPTION

A plat, entitled Exhibit "E", is attached hereto and by this reference made a part hereof.

Prepared by or under supervision of:

Savior Micallef, LS 8289 Date 01/12/23



LICENSED LAND SURVEYOR
SAVIOR MICALLEF
No. 8289
STATE OF CALIFORNIA

EXHIBIT 'E'

PLAT TO ACCOMPANY LEGAL DESCRIPTION

SCALE : 1" = 40' DATE: JANUARY 2023	PARCEL 1 3708 BAYSHORE BLVD, BRISBANE, CAIFORNIA	SAVIOR P. MICALLEF, L.S.8289 LAND SURVEYING (805) 709-2423