
MONK & ASSOCIATES
Environmental Consultants

November 13, 2023

City Ventures
444 Spear Street Ste 200
San Francisco, California 94105

Attention: Ms. Samantha Hauser

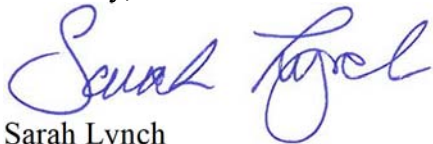
**RE: Review of Technical Biological Report
Glenview Terrace, San Bruno, California**

Dear Ms. Hauser:

Monk & Associates, Inc. (M&A) has reviewed the Technical Biological Report prepared by Live Oak Associates on November 11, 2019, for the Glenview Terrace project located in San Bruno, California. Based on our review of this report we believe the impact analysis is thorough and the mitigation measures prescribed are sufficient to ensure that the project's impact on biological resources is reduced to a less than significant level pursuant to CEQA.

If you have any questions, please do not hesitate to contact me at (925) 947-4867 ext. 203 or at Sarah@monkassociates.com. Thank you.

Sincerely,



Sarah Lynch
Principal Biologist



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

GLENVIEW TERRACE TECHNICAL BIOLOGICAL REPORT SAN BRUNO, SAN MATEO COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

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November 11, 2019

PN 2372-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc., conducted an investigation of the biological resources of the Glenview Terrace property located at the northeastern corner of Glenview Drive and San Bruno Avenue and includes APNs: 019-042-150; -160; and -170) in the City of San Bruno, San Mateo County, California. The proposed project consists of residential development including two detention basins: in the northeastern corner and in the southeastern corner of the project as well as a defensible space landscape plan for the eastern edge of the development. The site consists of both developed and natural land, and includes developed/landscaped, California annual grassland, erosional features, potential wetland, mixed woodland, and chaparral habitats.

California red-legged frogs and western pond turtles have the potential to occur onsite, as they are known or suspected to be in areas adjacent to the site, therefore, preconstruction surveys will be conducted for these species and a silt fence will be established as a wildlife exclusion fence to prevent these species from entering the site during construction.

Other California species of special concern that may occur on the site include the saltmarsh common yellowthroat, Townsend's big-eared bat, pallid bat, big free-tailed bat, San Francisco dusky-footed woodrat, and American badger. While no bat roosting habitat occurs at the church, the residence and trees onsite may provide potentially suitable roosting habitat for bats. The timing of site development could also result in harm or injury to nesting migratory birds and nesting raptors, should they occur on the site prior to development, therefore preconstruction surveys are necessary for nesting migratory birds and raptors.

Jurisdictional waters absent from the site.

Rare plant surveys are necessary for the site for robust spineflower, Franciscan onion, and arcuate bush-mallow.

The removal of trees should comply with the City of San Bruno's tree ordinance. Trees to be retained onsite are expected to be protected based on the tree preservation guidelines.

Impacts to habitat for native wildlife, wildlife movements, and degradation of water quality in seasonal creeks, reservoirs, and downstream waters would be considered less-than-significant.

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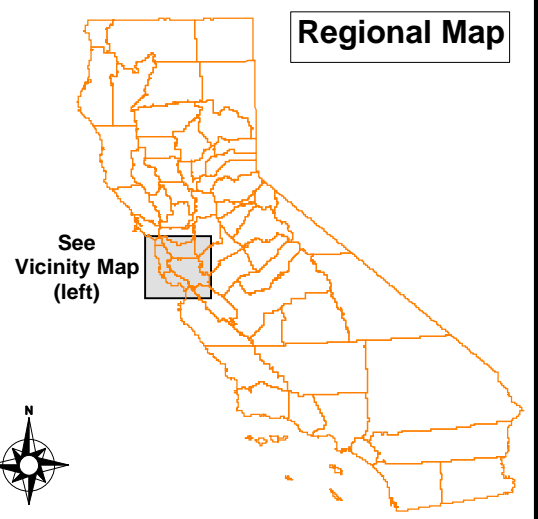
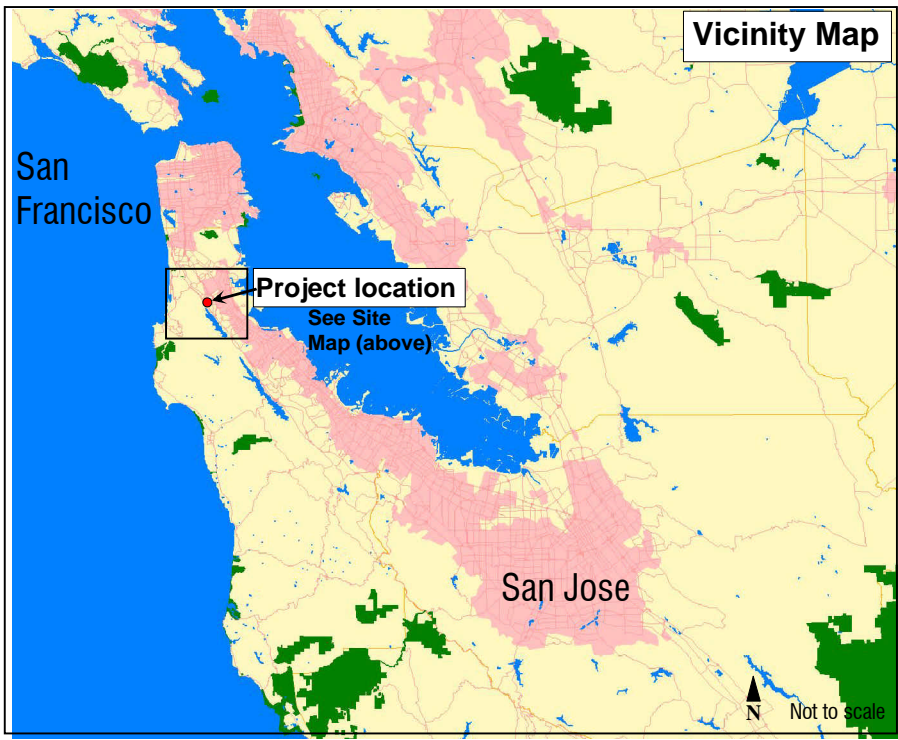
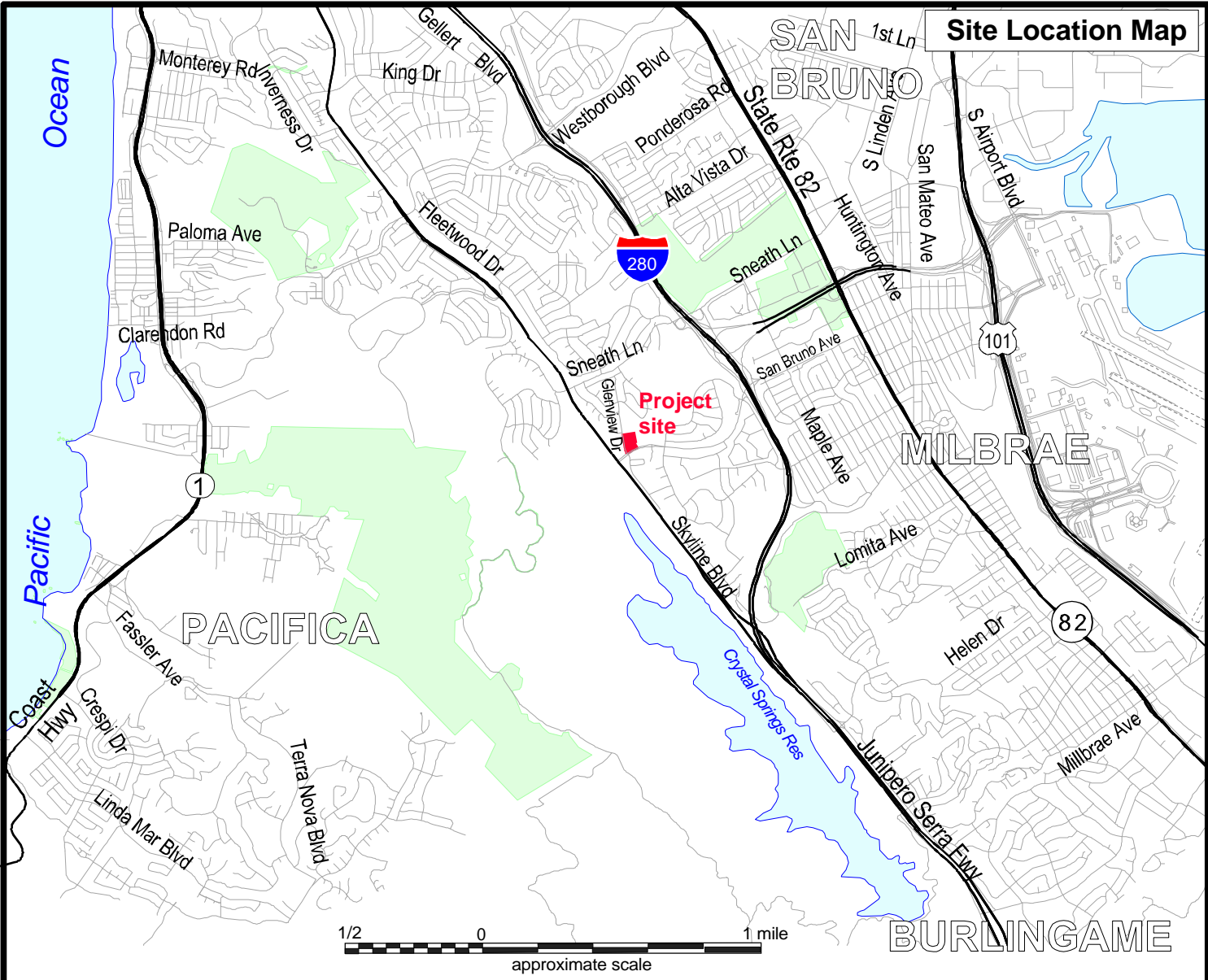
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1 INTRODUCTION

This site was evaluated by Live Oak Associates, Inc. (LOA) to ascertain whether or not build-out of the proposed project would have a significant impact (as defined by CEQA) on the biological resources of the site and region. This report describes the biotic resources of the Glenview Terrace Property (hereafter referred to as the “study area” or “site”), located on the northeastern corner of Glenview Drive and San Bruno Avenue and includes APNs: 019-042-150; -160; and -170) in the City of San Bruno, San Mateo County, California and evaluates possible impacts to these resources resulting from the proposed land use changes upon these resources. The site is bordered by residential building to the north, natural woodland and Crestmoor Canyon to the east, and industrial development and parking lots to the south, and an ongoing construction site to the west, and is located in the City of San Bruno, San Mateo County, California (Figure 1). The site can be found on the Montara Mountain U.S.G.S. 7.5’ quadrangle in Section 32 of Township 3 South, Range 5 West and Section 5 of Township 4 South Range 5 West. The site is comprised of a vacant church with associated parking lots and landscaping, a residence, grassland, chaparral, and woodland.

In general, the development of parcels can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of San Bruno. Therefore, this report addresses issues related to: 1) sensitive biotic resources occurring in the study area; 2) the federal, state, and local laws regulating such resources, 3) evaluate whether or not the project results in any significant impacts to these resources; and if so, 4) includes mitigation measures to reduce these impacts to less-than-significant (as defined by CEQA).

The analysis of impacts, as discussed in Section 3.0 of this report, was based on the known and potential biotic resources of the study area discussed in Section 2.0. Sources of information used in the preparation of this analysis included: 1) the *California Natural Diversity Data Base* (RareFind5, 2019); 2) the *California Rare Plant Rank* (CNPS 2019); 3) manuals and references related to plants and animals of the San Mateo County region; and 4) the City of San Bruno policies and ordinances.



 Live Oak Associates, Inc.		
Glenview Terrace BE Site / Vicinity Map		
Date	Project #	Figure #
10/15/2019	2372-01	1

A field survey of the study area was conducted on May 31, 2019 by LOA ecologist Katrina Krakow.

1.1 PROJECT DESCRIPTION

The proposed Glenview Terrace will consist of residential development including two detention basins: in the northeastern corner and in the southeastern corner of the project as well as a defensible space landscape plan for the eastern edge of the development. See Figure 2 for the Site Plan.

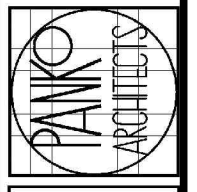


Live Oak Associates, Inc.

Glenview Terrace BE Site Plan

Date	Project #	Figure #
10/15/2019	2372-01	2

PHONE (650) 550-0100
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 Bill Severeth Avenue, Suite 1
 San Bruno, California 94066



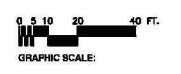
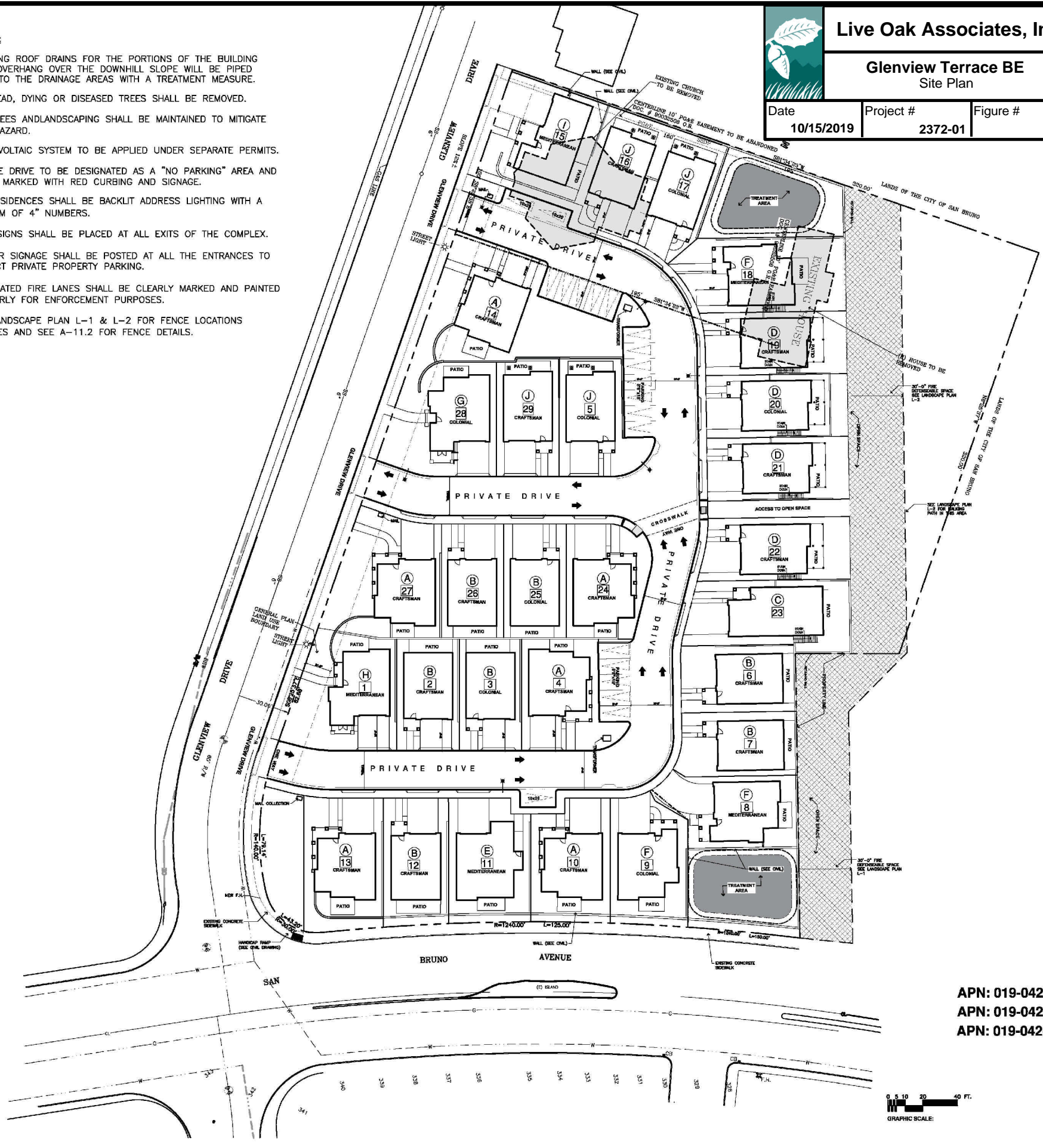
GLENVIEW TERRACE SAN BRUNO 29 UNIT SINGLE FAMILY DEVELOPMENT 2880 SAN BRUNO AVENUE, SAN BRUNO, CA 94066

TITLE
 SITE PLAN
 CHECKED: SEP
 DATE: 8-04-16
 SCALE: AS SHOWN
 DRAWN: PB/PR
 JOB NO. 130107
 DWG. NO.

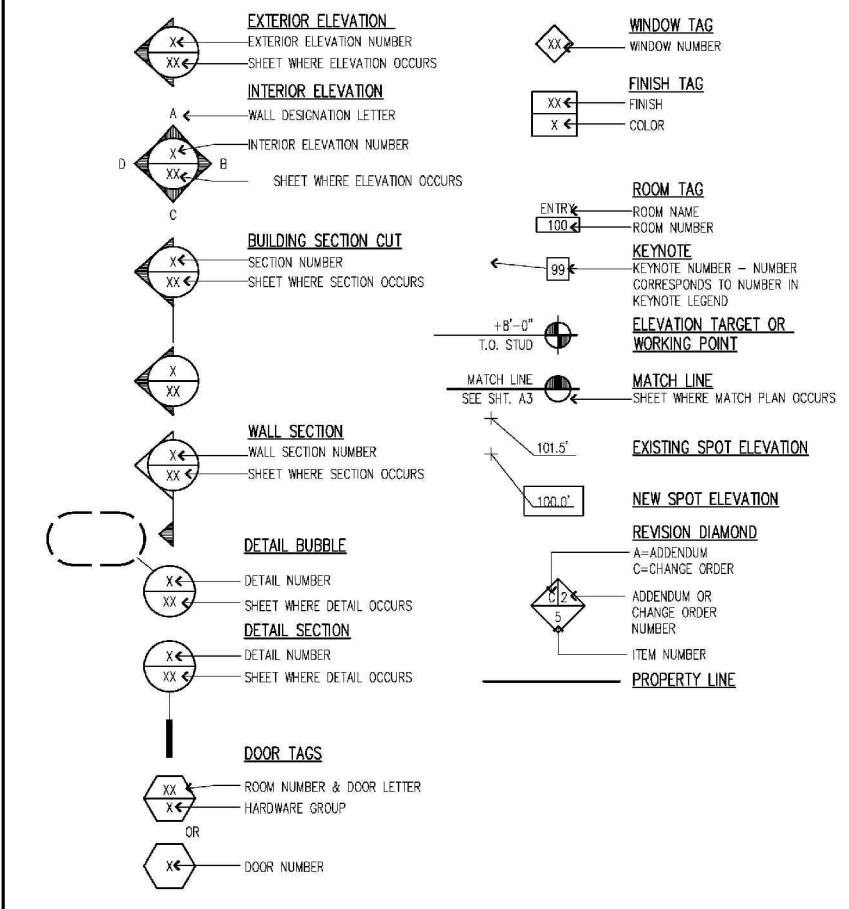
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 SHEET - OF -

GENERAL NOTES:

- BUILDING ROOF DRAINS FOR THE PORTIONS OF THE BUILDING THAT OVERHANG OVER THE DOWNHILL SLOPE WILL BE PIPED BACK TO THE DRAINAGE AREAS WITH A TREATMENT MEASURE.
- ALL DEAD, DYING OR DISEASED TREES SHALL BE REMOVED.
- ALL TREES AND LANDSCAPING SHALL BE MAINTAINED TO MITIGATE FIRE HAZARD.
- PHOTOVOLTAIC SYSTEM TO BE APPLIED UNDER SEPARATE PERMITS.
- PRIVATE DRIVE TO BE DESIGNATED AS A "NO PARKING" AREA AND TO BE MARKED WITH RED CURBING AND SIGNAGE.
- ALL RESIDENCES SHALL BE BACKLIT ADDRESS LIGHTING WITH A MINIMUM OF 4" NUMBERS.
- STOP SIGNS SHALL BE PLACED AT ALL EXITS OF THE COMPLEX.
- PROPER SIGNAGE SHALL BE POSTED AT ALL THE ENTRANCES TO REFLECT PRIVATE PROPERTY PARKING.
- DESIGNATED FIRE LANES SHALL BE CLEARLY MARKED AND PAINTED PROPERLY FOR ENFORCEMENT PURPOSES.
- SEE LANDSCAPE PLAN L-1 & L-2 FOR FENCE LOCATIONS & TYPES AND SEE A-11.2 FOR FENCE DETAILS.



APN: 019-042-150
 APN: 019-042-160
 APN: 019-042-170



3 LEGEND

&	AND	DBL	DOUBLE	GA	GAUGE	NOM	NOMINAL	STD	STANDARD
∠	ANGLE	DET	DETAIL	GL	GLASS	O.D.	OUTSIDE DIAMETER	STL	STEEL
⊙	AT	DIAM	DIAMETER	GYP	GYPHUM	OPNG	OPENING	STOR	STORAGE
⊕	CENTERLINE	DN	DOWN	H.C.	HOLLOW CORE	OPP	OPPOSITE	SUSP	SUSPENDED
∅	DIAMETER	DR	DOOR	H.M.	HANDICAPPED	P.LAM	PLASTIC LAMINATE	T.O.	TOP OF
#	POUND OR NUMBER	DS	DOWNSPOUT	H.W.	HARDWOOD	PL	PLATE	TEL	TELEPHONE
ACOUS.	ACOUSTICAL	DWG	DRAWING	HORIZ	HORIZONTAL	PLAS	PLASTER	THK	THICK
ADJ.	ADJUSTABLE	E.P.	ELECTRICAL PANELBOARD	HRE	HOUR	PLYWD	PLYWOOD	TK	TIGHT KNOT
A.F.F.	ABOVE FINISH FLOOR	EA	EACH	HTG	HEIGHT	PR	PAIR	TYP	TYPICAL
AL	ALUMINUM	EL	ELEVATION	HR	HOUR	PT	POINT	U.O.N.	UNLESS OTHERWISE NOTED
ARCH	ARCHITECTURAL	ELEC	ELECTRICAL	HWAC	HEATING, VENTILATING & AIR CONDITIONING	R	RISER	UNF	UNFINISHED
BD	BOARD	EMER	EMERGENCY	LD	INSIDE DIAMETER (DIM.)	RAD	RADIUS	VERT	VERTICAL
BLDG	BUILDING	EQ	EQUAL	INSUL	INSULATION	RGTR	REGISTER	W	WEST
BLK	BLOCK	(E)	EXISTING	JT	JOINT	REQ'D	REQUIRED	W/	WITH
BLKG	BLOCKING	F.E.	FIRE EXTINGUISHER	LAM	LAMINATE	RESIL	RESILIENT	W/C	WATER CLOSET
BM	BEAM	F.O.C.	FACE OF COLUMN	LT	LIGHT	RIL	ROOM	W/O	WITHOUT
BOT	BOTTOM	F.O.F.	FACE OF FINISH	M	MIRROR	RWD	REDWOOD	W/R	WATER RESISTANT
CAB	CABINET	F.O.S.	FACE OF STUDS	MAX	MAXIMUM	S	SOUTH	WD	WOOD
CEM	CEMENT	F.W.	FEATURE WALL	MECH	MECHANICAL	S.C.	SOLID CORE	WSCT	WAINSCOT
CER	CERAMIC	F.R.	FIRE RETARDANT	MFR	MANUFACTURER	SSD	SEE STRUCT. DRWS	WT	WEIGHT
CLG	CEILING	F.S.	FULL SIZE	MIN	MINIMUM	S.STL	STAINLESS STEEL		
CLG	CAULKING	FIN	FINISH	MISC	MISCELLANEOUS	SCHED	SCHEDULE		
CLR	CLEAR	FL	FLOOR	N	NORTH	SHT	SHEET		
COL	COLUMN	FLR	FLOOR	N.L.C.	NOT IN CONTRACT	SIM	SIMILAR		
CONC	CONCRETE	FT	FOOT OR FEET	N.T.S.	NOT TO SCALE	SPEC	SPECIFICATION		
CONT	CONTINUOUS	G.B.	GRAB BAR	(N)	NEW	SQ	SQUARE		
D.F.	DRINKING FOUNTAIN			NO.	NUMBER				

2 ABBREVIATIONS

1 SITE PLAN

SCALE: 1" = 30'-0"

2 EXISTING CONDITIONS

The project site located on the northeastern corner of Glenview Drive and San Bruno Avenue and includes APNs: 019-042-150; -160; and -170 in the City of San Bruno, San Mateo County, California. The site can be found on the Montara Mountain U.S.G.S. 7.5' quadrangle in Section 32 of Township 3 South, Range 5 West and Section 5 of Township 4 South Range 5 West. The site is comprised of a church with associated parking lots and landscaping, a residence, grassland, chaparral, and woodland. The site has a relatively flat topography near the southwestern corner of the site and throughout much of the building area, however, the site slopes down on the eastern side and is extremely steep on the eastern side of the site with the elevation ranging from approximately 475 feet (145 meters) in the southwestern corner to approximately 402 feet (122 meters) in the northeastern corner National Geodetic Vertical Datum (NGVD).

Three soil series exist onsite, including Candlestick-Kron-Buriburi complex, 30 to 75 percent slopes; Urban land; and Urban land-Orthents, cut and fill complex, 5 to 75 percent slopes. None of these soils are considered to be hydric.

2.1 BIOTIC HABITATS






Four land cover types: Developed/Landscaped, Ruderal/California Annual Grassland, Mixed Woodland, and Chaparral are present on the Glenview Terrace project site (Figure 3). These land cover types are described in greater detail below.

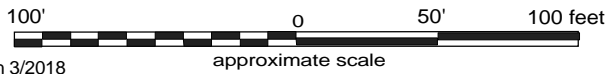
2.1.1 Developed/Landscaped

The site supports two buildings, including a church and a residence and associated parking lot and landscaping. Plant species observed in this habitat onsite includes Japanese maple (*Acer palmatum*), lotus (*Acmispon* sp.), yellow lotus (*Acmispon wrangelianus*), pearly everlasting (*Anaphalis margaritacea*), wild oats (*Avena* sp.), coyote brush (*Baccharis pilularis*), false brome (*Brachypodium distachyon*), little rattlesnake grass (*Briza minor*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), bottlebrush (*Callistemon* sp.), Italian thistle (*Carduus pycnocephalus*), iceplant (*Carpobrotus edulis*), paintbrush (*Castilleja* sp.), cotoneaster (*Cotoneaster* sp.), jade plant (*Crassula ovata*), wild cucumber (*Cucumis anguria*), hedgehog dogtail grass (*Cynosurus echinatus*), orchard grass (*Dactylis glomerata*), willowherb (*Epilobium* sp.), filaree (*Erodium* sp.), scotch broom (*Cytisus scoparius*), eucalyptus (*Eucalyptus* sp.), fennel



LEGEND

-  Approximate Project Boundary
-  Chaparral
-  California Annual Grassland
-  Developed / Landscaped
-  Mixed Woodland



Aerial Photograph courtesy of Google Earth 3/2018



Live Oak Associates, Inc.

Glenview Terrace BE
Biotic Habitats

Date	Project #	Figure #
10/15/2019	2372-01	3

(*Foeniculum vulgare*), geranium (*Geranium* sp.), grevillea (*Grevillea* sp.), hebe (*Hebe* sp.), English ivy (*Hedera helix*), bristly oxtongue (*Helminthotheca echioides*), toyon (*Heteromeles arbutifolia*), Aaron's beard (*Hypericum calycinum*), dusty miller (*Jacobaea maritima*), juniper bush (*Juniperus* sp.), Junegrass (*Koeleria macrantha*), prickly lettuce (*Lactuca serriola*), giraffe's head (*Lamium amplexicaule*), privet (*Ligustrum* sp.), flax (*Linum usitatissimum*), honeysuckle (*Lonicera* sp.), bird's-foot trefoil (*Lotus corniculatus*), burclover (*Medicago polymorpha*), melic grass (*Melica* sp.), Torrey's torreyana (*Melica torreyana*), African daisy (*Osteospermum* sp.), goldback fern (*Pentagramma triangularis*), canary grass (*Phalaris* sp.), pine (*Pinus* sp.), Monterey pine (*Pinus radiata*), mock orange (*Pittosporum* sp.), English plantain (*Plantago lanceolata*), annual bluegrass (*Poa annua*), common knotweed (*Polygonum arenastrum*), firethorn (*Pyracantha coccinea*), coast live oak (*Quercus agrifolia*), rhubarb (*Rheum rhabarbarum*), Indian hawthorn (*Rhaphiolepis indica*), rose (*Rosa* sp.), Himalayan blackberry (*Rubus armeniacus*), California blackberry (*Rubus ursinus*), curly dock (*Rumex crispus*), willow dock (*Rumex salicifolius*), lavender cotton (*Santolina chamaecyparissus*), coast redwood (*Sequoia sempervirens*), baby tears (*Soleirolia soleirolii*), sowthistle (*Sonchus* sp.), poison-oak (*Toxicodendron diversilobum*), clover (*Trifolium* sp.), little hop clover (*Trifolium dubium*), vetch (*Vicia* sp.), periwinkle (*Vinca major*), fescue (*Vulpia* sp.), and other planted species.

Wildlife observed within or flying over this habitat during the May 2019 survey included the western fence lizard (*Sceloporus occidentalis*), red-shouldered hawk (*Buteo lineatus*), American crow (*Corvus brachyrhynchos*), California scrub jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), spotted towhee (*Pipilo maculatus*), California towhee (*Melospiza crissalis*), European starling (*Sturnus vulgaris*), Bottta's gopher (*Thomomys bottae*) sign, skunk (*Mephitis mephitis*) digging, and bobcat (*Lynx rufus*) scat.

2.1.2 Ruderal/California Annual Grassland

The southern third of the site was previously developed. A building was located in the southwest corner of the site, and based on aerial imagery, this structure and associated hardscape was removed in 2003 (Google Earth Imagery 2019). The soil consists of urban infill dirt and contains gravel and rocks typical of infill areas. Some asphalt remnants are also present. This area is now dominated by vegetation typical of ruderal areas and California annual grassland habitats. Plant species observed in this habitat includes blow wives (*Achyraea mollis*), scarlet pimpernel (*Anagallis arvensis*), wild oats, Mediterranean linseed (*Bellardia trixago*), coyote brush, false

brome (*Brachypodium distachyon*), mustard (*Brassica* sp.), soft chess, Italian thistle, pampas grass (*Cortaderia selloana*), bindweed (*Convolvulus arvensis*), teasel (*Dipsacus sylvestris*), fennel, squirreltail fescue (*Festuca bromoides*), Italian wildrye (*Festuca perennis*), dissected geranium (*Geranium dissectum*), bristly oxtongue, flax, lupine (*Lupinus* sp.), burclover, sweet clover (*Melilotus* sp.), canary grass, English plantain, rabbitsfoot grass (*Polypogon monspeliensis*), annual bluegrass, wild radish (*Raphanus raphanistrum*), curly dock, sowthistle, little hop clover, and rose clover (*Trifolium hirtum*).

Wildlife observed within or flying over this habitat during the May 2019 survey was limited to the western fence lizard and Botta's pocket gopher sign.

2.1.3 Mixed Woodland

The site supports a mixed woodland on the eastern side of the project site. This habitat is somewhat open within the flatter and gentler-sloped areas however, it becomes dense and impenetrable in the majority of this habitat where the land becomes steep on the eastern side. Although access to this entire habitat was not available, the remainder of this habitat was surveyed with binoculars. A small fenced area appears to have held potted plants beneath the canopy at one point, and has now fallen into disrepair. Plant species observed in this habitat include coyote brush, wild cucumber, California lilac (*Ceanothus thyrsiflorus*), thistle (*Cirsium* sp.), cotoneaster, yerba santa (*Eriodictyon californicum*), poison hemlock (*Conium maculatum*), scotch broom, bedstraw (*Galium* sp.), toyon, honeysuckle, bird's-foot trefoil (*Lotus corniculatus*), mallow (*Malva* sp.), sticky monkey flower (*Mimulus aurantiacus*), prickly pear (*Opuntia* sp.), pine, hollyleaf cherry (*Prunus ilicifolia*), coast live oak, pricklefruit buttercup (*Ranunculus muricatus*), native blackberry, elderberry (*Sambucus nigra*), bee plant (*Scrophularia californica*), milk thistle (*Silybum marianum*), hedge nettle (*Stachys bullata*), snowberry (*Symphoricarpos albus*), poison-oak, hemlock (*Tsuga* sp.), California bay tree (*Umbellularia californica*), yucca (*Yucca* sp.), and calla lily (*Zantedeschia aethiopica*).

Wildlife observed within or flying over this habitat during the May 2019 survey included brush rabbit (*Sylvilagus bachmani*), Steller's jay (*Cyanocitta stelleri*), spotted towhee, and San Francisco dusky footed woodrat (*Neotoma fuscipes annectens*) nests.

2.1.4 Chaparral

The site supports two areas of chaparral, both existing between the California annual grassland and the mixed woodland. This chaparral supports large dense plants, impenetrable in some areas. Plant species observed in this habitat include coyote brush, scotch broom, cotoneaster, yerba santa, toyon, coast live oak, pine, pampas grass, California blackberry, and poison-oak.

Wildlife observed within or flying over this habitat during the May 2019 survey included the California scrub jay, California towhee, and brush rabbit.

2.2 MOVEMENT CORRIDORS

Habitat corridors are vital to terrestrial animals for connectivity between core habitat areas (i.e., larger intact habitat areas where species make their living). Connections between two or more core habitat areas help ensure that genetic diversity is maintained, thereby diminishing the probability of inbreeding depression and geographic extinctions.

The quality of habitat within the corridors is important: “better” habitat consists of an area with a minimum of human interference (e.g., roads, homes, etc.) and is more desirable to more species than areas with sparse vegetation and high-density roads. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. With increasing encroachment of humans on wildlife habitats, it has become important to establish and maintain linkages, or movement corridors, for animals to be able to access locations containing different biotic resources that are essential to maintaining their life cycles.

Beier and Loe (1992) noted five functions of corridors (rather than physical traits) that are relevant when conducting an analysis regarding the value of linkages. The following five functions should be used to evaluate the suitability of a given tract of land for use as a habitat corridor:

1. Wide ranging mammals can migrate and find mates;
2. Plants can propagate within the corridor and beyond;
3. Genetic integrity can be maintained;
4. Animals can use the corridor in response to environmental changes or a catastrophic event;
5. Individuals can recolonize areas where local extinctions have occurred.

A corridor is “wide enough” when it meets these functions for the suite of animals in the area. It is important to note that landscape linkages are used differently by different species. For instance, medium to large mammals (or some bird species) may traverse a corridor in a matter of minutes or hours, while smaller mammals or other species may take a longer period of time to move through the same corridor (e.g., measured in days, weeks and even years). To the extent practicable, conservation of linkages should address the needs of “passage species” (those species that typically use a corridor for the express purpose of moving from one intact area to another) *and* “corridor dwellers” (slow moving species such as plants and some amphibians and reptiles that require days or generations to move through the corridor).

Although the adjacent Crestmoor Canyon may provide wildlife with a local movement corridor, the project site itself does not support a wildlife corridor. Movements on and across the site consists of normal movements associated with an individual animal's home range or territory, or animals dispersing from their natal range.

2.3 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as "candidates" for such listing. Still others have been designated as "species of special concern" by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2001). Collectively, these plants and animals are referred to as "special status species."

A number of special status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table 1. Sources of information for this table included *California Natural Diversity Data Base* (CDFW 2019), *Listed Plants and Listed Animals* (USFWS 2019), *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2019), *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2019), *California Bird Species of Special Concern* (Shuford and Gardall 2008), and *California Amphibian and Reptile Species of Special Concern* (Thompson et al. 2016). This information was used to evaluate the potential for special status plant and animal species that occur on the site. Figures 4a and 4b depict the location of special status species found by the California Natural Diversity Data Base (CNDDDB).

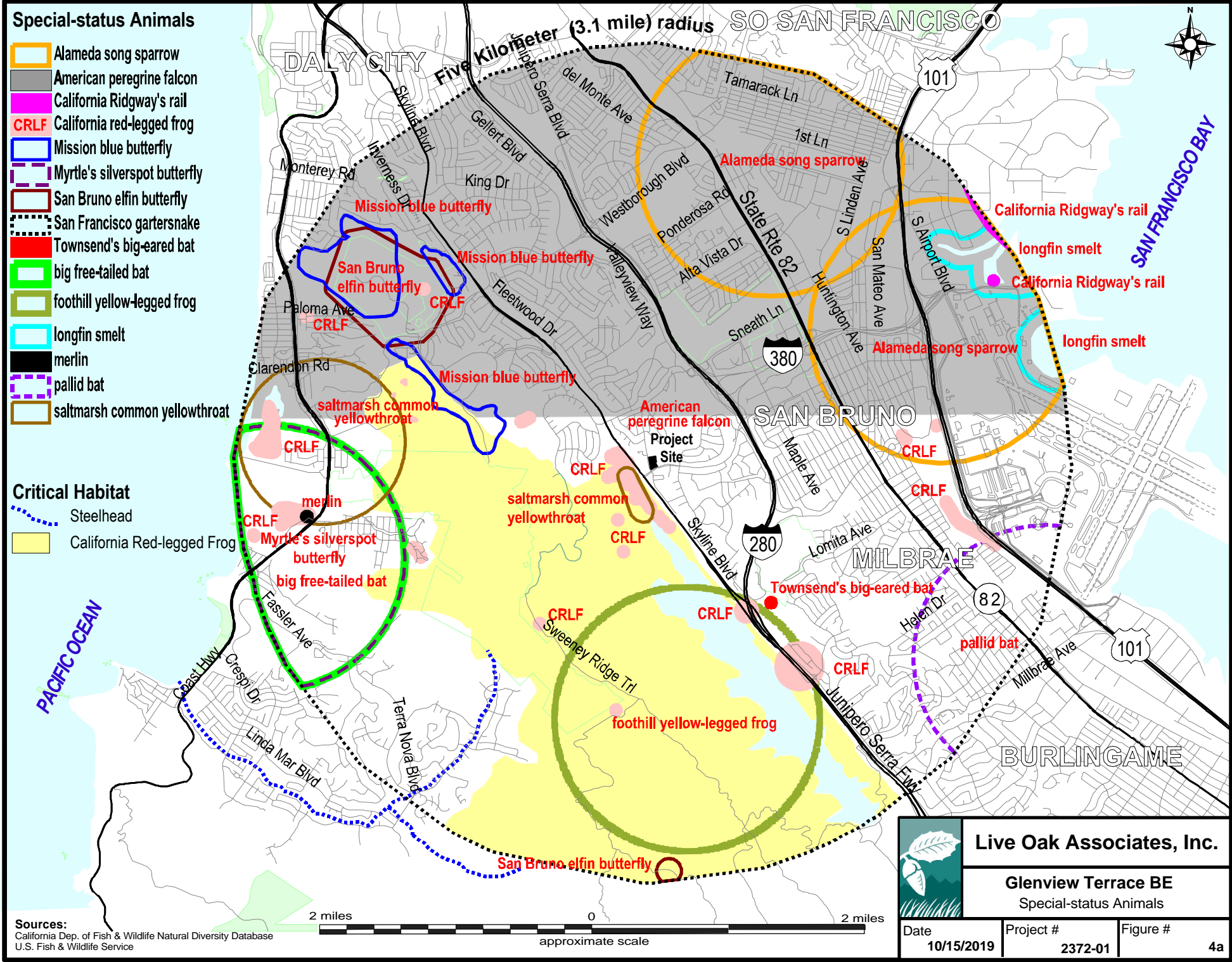
A search of published accounts for all of the relevant special status plant and animal species was conducted for the Montara Mountain USGS 7.5 minute quadrangle in which the project site

occurs, and for the five surrounding quadrangles (San Francisco South, Hunters Point, San Mateo, Woodside, and Half Moon Bay) using the California Natural Diversity Data Base (CNDDDB) Rarefind5. All species listed as occurring in these quadrangles on CNPS Lists 1A, 1B, 2, or 4 were also reviewed (See Figures 4a and 4b).

Serpentine soils are absent from the site; as such, those species that are uniquely adapted to serpentine conditions in the project's vicinity are considered absent from the site. These species include the Bay checkerspot butterfly (*Euphydryas editha bayensis*), San Mateo thorn-mint (*Acanthomintha duttonii*), Franciscan manzanita (*Arctostaphylos franciscana*), Presidio manzanita (*Arctostaphylos montana* ssp. *ravenii*), Crystal Springs fountain thistle (*Cirsium fontinale* var. *fontinales*), San Mateo woolly sunflower (*Eriophyllum latilobum*), Marin Western Flax (*Hesperolinon congestum*), Crystal Springs lessingia (*Lessingia arachnoidea*), and adobe sanicle (*Sanicula maritima*).

Several other special status plant species have been ruled out on the site as they occur in habitats not present in the study area (e.g. coastal prairie, coastal scrub, marsh, etc.) or at elevations significantly below or above elevations of the site (approximately 122-145 meters NGVD) and, therefore, are also considered absent from the site. These species include the Blasdale's bent grass (*Agrostis blasdalei*), San Bruno Mountain manzanita (*Arctostaphylos imbricate*), Pacific manzanita (*Arctostaphylos pacifica*), round-headed Chinese-houses (*Collinsia corymbosa*), Point Reyes bird's-beak (*Cordylanthus maritimum* ssp. *palustre*), dark-eyed gilia (*Gilia millefoliata*), short-leaved evax (*Hesper-evax sparsiflora* var. *brevifolia*), water star-grass (*Heteranthera dubia*), perennial goldfields (*Lasthenia californica* ssp. *macrantha*), beach layia (*Layia carnosae*), coast yellow leptosiphon (*Leptosiphon croceus*), rose leptosiphon (*Leptosiphon rosaceus*), Marin knotweed (*Polygonum marinense*), and California seablite (*Suaeda californica*).

Plant and animal species that may more reasonably occur onsite are discussed further below.

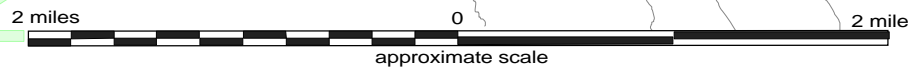



Special-status Animals

- Alameda song sparrow
- American peregrine falcon
- California Ridgway's rail
- CRLF California red-legged frog
- Mission blue butterfly
- Myrtle's silverspot butterfly
- San Bruno elfin butterfly
- San Francisco gartersnake
- Townsend's big-eared bat
- big free-tailed bat
- foothill yellow-legged frog
- longfin smelt
- merlin
- pallid bat
- saltmarsh common yellowthroat



















- Critical Habitat**
- Steelhead
 - California Red-legged Frog

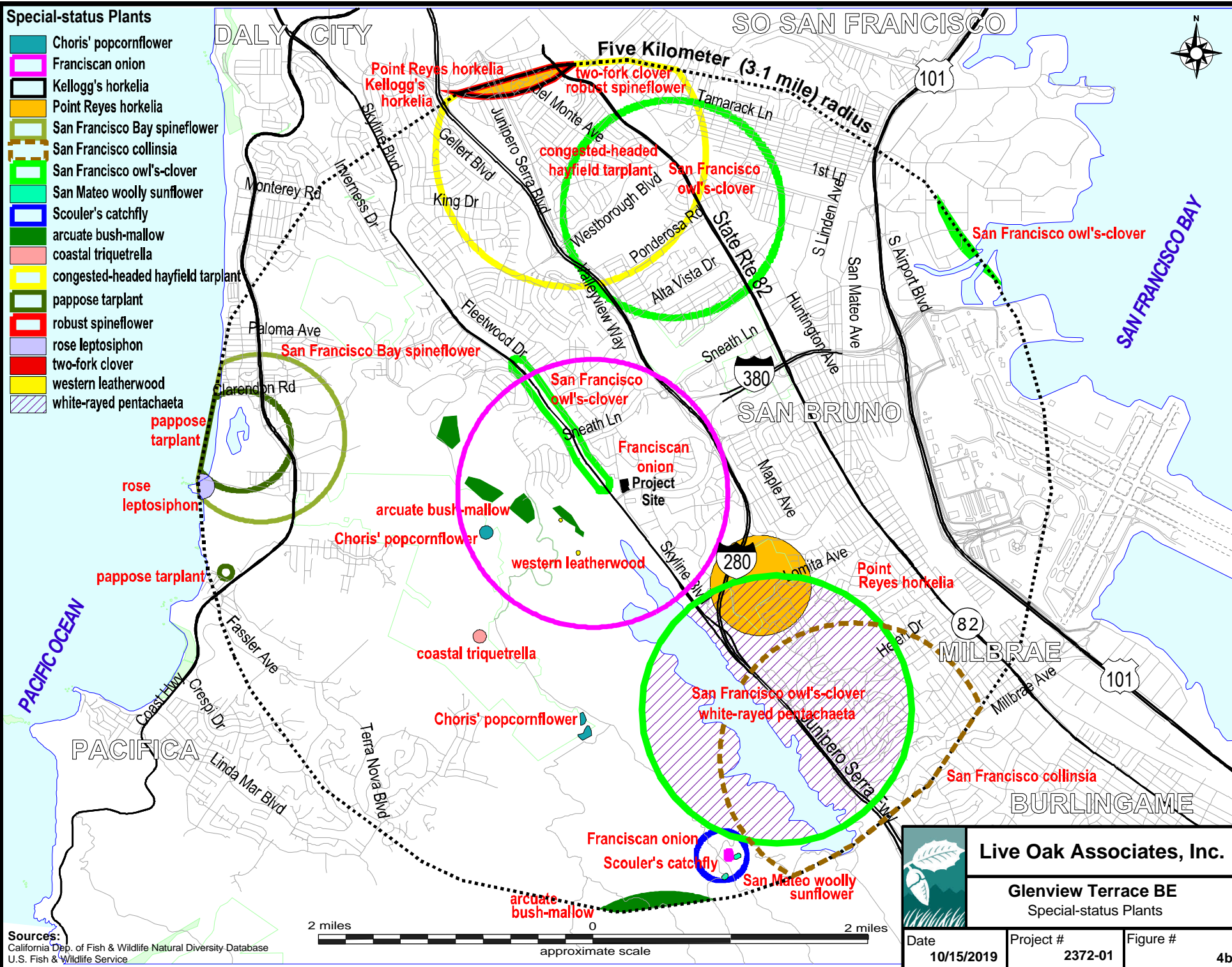
Sources:
 California Dep. of Fish & Wildlife Natural Diversity Database
 U.S. Fish & Wildlife Service




	Live Oak Associates, Inc.		
	Glenview Terrace BE Special-status Animals		
Date 10/15/2019	Project # 2372-01	Figure # 4a	

Special-status Plants

-  Choris' popcornflower
-  Franciscan onion
-  Kellogg's horkelia
-  Point Reyes horkelia
-  San Francisco Bay spineflower
-  San Francisco collinsia
-  San Francisco owl's-clover
-  San Mateo woolly sunflower
-  Scouler's catchfly
-  arcuate bush-mallow
-  coastal triquetrella
-  congested-headed hayfield tarplant
-  pappose tarplant
-  robust spineflower
-  rose leptosiphon
-  two-fork clover
-  western leatherwood
-  white-rayed pentachaeta



		
Live Oak Associates, Inc.		
Glenview Terrace BE Special-status Plants		
Date 10/15/2019	Project # 2372-01	Figure # 4b

Sources:
California Dep. of Fish & Wildlife Natural Diversity Database
U.S. Fish & Wildlife Service

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2019 and CNPS 2019)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence in the Study Area
Robust spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>)	FE, CNPS 1B	<u>Habitat:</u> Occurs on sandy or gravelly soils in openings of cismontane woodlands, coastal dunes and coastal scrub. <u>Elevation:</u> 3-300 meters. <u>Blooms:</u> Annual herb; April – September.	Possible. Potentially suitable habitat for this species occurs within the mixed woodland of the site. The closest known occurrences are approximately three miles north-northwest of the site.
San Francisco lessingia (<i>Lessingia germanorum</i>)	FE, CE, CRPR 1B	<u>Habitat:</u> Occurs in coastal scrub of remnant dunes. <u>Elevation:</u> 25-110 meters. <u>Blooms:</u> Annual herb; (June) July-November.	Unlikely. Habitat on the site is marginal for this species and there are no known occurrences within a 5-mile radius. The closest known occurrences are north of the site near Daly City and Colma (San Bruno Mountain).
White-rayed pentachaeta (<i>Pentachaeta bellidiflora</i>)	FE, CE, CNPS 1B	<u>Habitat:</u> Cismontane woodland and valley and foothill grasslands, often on serpentinite. <u>Elevation:</u> 35-620 meters. <u>Blooms:</u> Annual herb; March–May.	Unlikely. Serpentine soils are absent from the site. The nearest documented occurrence of this species is a mile southeast of the site.
San Francisco popcornflower (<i>Plagiobothrys diffusus</i>)	CE, CNPS 1B	<u>Habitat:</u> Occurs in coastal prairie and valley and foothill grassland. <u>Elevation:</u> 60-360 meters. <u>Blooms:</u> Annual herb; March-June.	Unlikely Although potentially suitable habitat occurs within grasslands of the site, the closest known occurrences of this species date back to the late 1800s and early 1900s, more than 10 miles north of the site in the City of San Francisco.
Hickman’s cinquefoil (<i>Potentilla hickmanii</i>)	FE, CE, CNPS 1B	<u>Habitats:</u> Coastal bluff scrub, closed-cone coniferous forest, vernal mesic meadows and seeps, and freshwater marshes and swamps. <u>Elevation:</u> 10-149 meters. <u>Blooms:</u> April-August.	Absent. No suitable habitat occurs on the site for this species.
Two-fork clover (showy Indian clover) (<i>Trifolium amoenum</i>)	FE, CNPS 1B	<u>Habitat:</u> Occurs on coastal bluff scrub and valley and foothill grasslands, sometimes on serpentine soils. <u>Elevation:</u> 5-415 meters. <u>Blooms:</u> Annual herb; April – June	Unlikely. Serpentine soils are absent from the site. The closest documented occurrences are three miles north of the site and date back to the early- to mid-1900s.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2019 and CNPS 2019)

Other special status plants listed by CNPS

Species	Status	Habitat	Occurrence in the Study Area
Franciscan onion (<i>Allium peninsulare</i> var. <i>franciscanum</i>)	CNPS 1B	<u>Habitat</u> : Occurs on clay, volcanic, often serpentine soils in cismontane woodlands and valley and foothill grasslands. <u>Elevation</u> : 52-300 meters. <u>Blooms</u> : Perennial bulbiferous herb; May-June.	Possible . There are numerous occurrences, several of them observed within the past five years, in the site’s vicinity and described to occur in habitats similar to the mixed woodland habitat on the site and not on serpentine soils.
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	CNPS 1B	<u>Habitat</u> : Coastal bluff scrub, cismontane woodland, and valley and foothill grasslands. <u>Elevation</u> : 3-500 meters. <u>Blooms</u> : Annual herb; March-June.	Unlikely . Although grasslands of the site provide potentially suitable habitat for this species, there are no known occurrences within a three-mile radius of the site. The closest known occurrences are on or in the vicinity of San Bruno Mountain and date back to the early- to mid-1900s.
Anderson’s manzanita (<i>Arctostaphylos andersonii</i>)	CNPS 1B	<u>Habitat</u> : Occurs in broadleaved upland forest, chaparral, and in openings and edges of North Coast coniferous forest. <u>Elevation</u> : 60-730 meters. <u>Blooms</u> : Evergreen shrub; November – May.	Unlikely . Potentially suitable habitat occurs on the site for this species; however, the closest occurrences are more than five miles north of the site on San Bruno Mountain.
Montara manzanita (<i>Arctostaphylos montaraensis</i>)	CNPS 1B	<u>Habitat</u> : Occurs in maritime chaparral and coastal scrub. <u>Elevation</u> : 80 - 500 meters. <u>Blooms</u> : Evergreen shrub; January - March.	Absent . No suitable habitat occurs on the site for this species.
Kings Mountain manzanita (<i>Arctostaphylos regismontana</i>)	CNPS 1B	<u>Habitat</u> : Occurs in broadleaved upland forest, chaparral, north coast coniferous forest on granitic or sandstone soils. <u>Elevation</u> : 305-730 meters. <u>Blooms</u> : Evergreen shrub; January-April.	Unlikely . Potentially suitable habitat occurs on the site for this species; however, the closest known occurrences are more approximately five miles south of the site.
Coastal marsh milk-vetch (<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>)	CNPS 1B	<u>Habitats</u> : Mesic coastal dunes, coastal scrub, marshes, and swamps. <u>Elevation</u> : 0-30 meters. <u>Blooms</u> : Perennial herb; April-October.	Absent . No suitable habitat occurs on the site for this species.
Alkali milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	CNPS 1B	<u>Habitat</u> : Occurs in alkaline soils in valley and foothill grassland and in vernal pools. <u>Elevation</u> : 1-60 meters. <u>Blooms</u> : Annual herb; March-June.	Absent . No suitable habitat occurs on the site for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (CONTINUED adapted from CDFW 2019 and CNPS 2019)

Other special status plants listed by CNPS

Species	Status	Habitat	Occurrence in the Study Area
Bristly sedge (<i>Carex comosa</i>)	CNPS 2B	<u>Habitat:</u> Occurs at the margins of wetlands within coastal prairies, and valley and foothill grasslands. <u>Elevation:</u> above 0 meters. <u>Blooms:</u> Perennial herb; May-September.	Unlikely. Suitable habitat does not exist onsite, additionally, there are only two occurrences within ten miles of the site, one which dates back to 1866. Both of these occurrences are north of the site, in or near San Francisco.
Pappose tarplant (<i>Centromadia parryi</i> ssp. <i>parryi</i>)	CNPS 1B	<u>Habitats:</u> Often alkaline soils within chaparral, coastal prairie, meadows, seeps, marshes, swamps, and mesic valley and foothill grasslands. <u>Elevation:</u> 0-420 meters. <u>Blooms:</u> Annual herb; May-November.	Absent. No suitable habitat occurs on the site for this species.
Compact cobwebby thistle (<i>Cirsium occidentale</i> var. <i>compactum</i>)	CRPR 1B	<u>Habitat:</u> Occurs in chaparral, coastal dunes, coastal prairie, and coastal scrub. <u>Elevation:</u> 5-150 meters. <u>Blooms:</u> Perennial herb; April-June.	Unlikely. Potentially suitable habitat occurs on the site for this species; however, the closest known occurrences are approximately five miles north of the site and date back to the early- to mid-1900s.
San Francisco Bay spineflower (<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>)	CNPS 1B	<u>Habitats:</u> Sandy soils of coastal bluff scrub, coastal dunes, coastal prairie, and coastal scrub. <u>Elevation:</u> 3-215 meters. <u>Blooms:</u> April-August.	Absent. No suitable habitat occurs on the site for this species.
Franciscan thistle (<i>Cirsium andrewsii</i>)	CNPS 1B	<u>Habitats:</u> Found in mesic habitats such as broadleaved upland forest, coastal bluff scrub, coastal prairie, and coastal scrub, also sometimes found in serpentine. <u>Elevation:</u> 0-150 meters. <u>Blooms:</u> March-July.	Absent. No suitable habitat occurs on the site for this species.
San Francisco collinsia (<i>Collinsia multicolor</i>)	CNPS 1B	<u>Habitat:</u> Closed-cone coniferous forest and coastal scrub, often associated with serpentine soils. <u>Elevation:</u> 30-250 meters. <u>Blooms:</u> Annual herb; March-May.	Absent. No suitable habitat occurs on the site for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (CONTINUED adapted from CDFW 2019 and CNPS 2019)

Other special status plants listed by CNPS

Species	Status	Habitat	Occurrence in the Study Area
Western leatherwood (<i>Dirca occidentalis</i>)	CNPS 1B	<u>Habitats:</u> Mesic habitats such as broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland. <u>Elevation:</u> 30-395 meters. <u>Blooms:</u> Deciduous shrub; January-April.	Unlikely. Habitats of the site are very marginal for this species and this species has not been observed in the project vicinity since the 1970's.
Hillsborough chocolate Lily (<i>Fritillaria biflora</i> var. <i>ineziana</i>)	CNPS 1B	<u>Habitats:</u> Cismontane woodland and valley and foothill grasslands on serpentinite. <u>Elevation:</u> None provided. <u>Blooms:</u> Perennial herb; March-April.	Absent. No suitable habitat occurs on the site for this species.
Fragrant fritillary (<i>Fritillaria liliacea</i>)	CNPS 1B	<u>Habitat:</u> Grassland, chaparral, cismontane woodland, riparian woodland, often on serpentine. <u>Elevation:</u> 30-860 meters. <u>Blooms:</u> Perennial herb; May-October.	Absent. No suitable habitat occurs on the site for this species.
Blue coast gilia (<i>Gilia capitata</i> ssp. <i>chamissonis</i>)	CRPR 1B	<u>Habitat:</u> Occurs in Coastal dunes and Coastal scrub. <u>Elevation:</u> 2-200 meters. <u>Blooms:</u> Annual herb; April-July.	Absent. No suitable habitat occurs on the site for this species.
San Francisco gumplant (<i>Grindelia hirsutula</i> var. <i>maritima</i>)	CNPS 1B	<u>Habitats:</u> Found in sandy or serpentine soils of coastal bluff scrub, coastal scrub, and valley and foothill grasslands. <u>Elevation:</u> 0-1700 meters. <u>Blooms:</u> Perennial herb; June-September.	Absent. No suitable habitat occurs on the site for this species.
Diablo helianthella (<i>Helianthella castanea</i>)	CNPS 1B	<u>Habitat:</u> Occurs in cismontane woodland, coastal scrub, chaparral, riparian woodland and broadleaved upland forest. <u>Elevation:</u> 60-1300 meters. <u>Blooms:</u> Perennial herb; March-June.	Unlikely. While potentially suitable habitat occurs on the site, the closest documented occurrence dates back to the late 1800's within the now urban area of South San Francisco.
Congested-headed hayfield tarplant (<i>Hemizonia congesta</i> ssp. <i>congesta</i>)	CRPR 1B	<u>Habitat:</u> Occurs in valley and foothill grassland, sometimes along roadsides. <u>Elevation:</u> 20-560 meters. <u>Blooms:</u> Annual herb; April-November.	Unlikely. While potentially suitable habitat occurs on the site, documented occurrences in the project vicinity date back to the early 1900's.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (CONTINUED adapted from CDFW 2019 and CNPS 2019)

Other special status plants listed by CNPS

Species	Status	Habitat	Occurrence in the Study Area
Kellogg’s horkelia (<i>Horkelia cuneata</i> var. <i>sericea</i>)	CNPS 1B	<u>Habitat</u> : Occurs in closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub in sandy or gravelly openings. <u>Elevation</u> : 10-200 meters. <u>Blooms</u> : Perennial herb; April–September.	Unlikely. While potentially suitable habitat occurs on the site, documented occurrences in the project vicinity date back to the early 1900’s.
Point Reyes horkelia (<i>Horkelia marinensis</i>)	CNPS 1B	<u>Habitats</u> : Found in sandy soils of coastal dunes, coastal prairie, and coastal scrub. <u>Elevation</u> : 15-350 meters. <u>Blooms</u> : Perennial herb; May-September.	Absent. No suitable habitat occurs on the site for this species.
Island rock lichen (<i>Hypogymnia schizidiata</i>)	CRPR 1B	<u>Habitat</u> : Occurs on bark and wood of hardwoods and conifers within closed-cone coniferous forest and chaparral. <u>Elevation</u> : 360-405 meters. <u>Blooms</u> : N/a	Absent. No suitable habitat occurs on the site for this species.
Ornduff’s meadowfoam (<i>Limnanthes douglasii</i> ssp. <i>ornduffii</i>)	CRPR 1B	<u>Habitat</u> : Occurs in agricultural fields and in meadows and seeps. <u>Elevation</u> : 10-20 meters. <u>Blooms</u> : Annual herb; November-May.	Absent. No suitable habitat occurs on the site for this species.
Arcuate bush-mallow (<i>Malacothammus arcuatus</i>)	CRPR 1B	<u>Habitat</u> : Occurs in chaparral and cismontane woodland. <u>Elevation</u> : 15-355 meters. <u>Blooms</u> : Perennial shrub; April-September.	Possible. Potentially suitable habitat occurs on the site.
Northern curly-leaved monardella (<i>Monardella sinuata</i> ssp. <i>nigrescens</i>)	CRPR 1B	<u>Habitat</u> : Occurs in sandy areas of chaparral (SCR Co.), coastal dunes, coastal scrub, and lower montane coniferous forest (SCR Co., ponderosa pine sandhills). <u>Elevation</u> : 0-300 meters. <u>Blooms</u> : (April) May-July (August-September).	Absent. No suitable habitat occurs on the site for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (CONTINUED adapted from CDFW 2019 and CNPS 2019)

Other special status plants listed by CNPS

Species	Status	Habitat	Occurrence in the Study Area
Woodland woollythreads (<i>Monolopia gracilens</i>)	CRPR 1B	<u>Habitat</u> : Serpentine soils in broadleaved upland forest openings, chaparral openings, cismontane woodland, north coast coniferous forest openings, and valley and foothill grasslands. <u>Elevation</u> : 100-1200 meters. <u>Blooms</u> : Annual herb; February-July.	Absent. No suitable habitat occurs on the site for this species.
Choris' popcorn-flower (<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>)	CNPS 1B	<u>Habitat</u> : Mesic areas within chaparral, coastal prairie, and coastal scrub. <u>Elevation</u> : 15-160 meters. <u>Blooms</u> : Annual herb; March-June.	Absent. No suitable habitat occurs on the site for this species.
Oregon meconella (<i>Meconella oregana</i>)	CNPS 1B	<u>Habitat</u> : Coastal prairie and coastal scrub. <u>Elevation</u> : 250-620 meters. <u>Blooms</u> : Annual herb; March-April.	Absent. No suitable habitat occurs on the site for this species.
Chaparral ragwort (<i>Senecio aphanactis</i>)	CNPS 2.2	<u>Habitat</u> : Chaparral, cismontane woodland, and coastal scrub, sometimes on alkaline soils. <u>Elevation</u> : 15-800 meters. <u>Blooms</u> : Annual herb; January-April (May).	Unlikely. While the site provides potentially suitable habitat, the closest documented occurrences date back to the early- to mid-1900's and are more than three miles north of the site.
Scouler's catchfly (<i>Silene scouleri</i> ssp. <i>scouleri</i>)	CRPR 2B	<u>Habitat</u> : Coastal bluff scrub, coastal prairie, and valley and foothill grassland. <u>Elevation</u> : 0-600 meters. <u>Blooms</u> : Perennial herb; (March-May) June-August (September).	Unlikely. While the site provides potentially suitable habitat, the closest documented occurrences are three miles south of the site and date back to the 1980's.
San Francisco champion (<i>Silene verecunda</i> ssp. <i>verecunda</i>)	CNPS 1B	<u>Habitat</u> : Sandy soils within coastal bluff scrub, chaparral, coastal prairie, coastal scrub, and valley and foothill grasslands. <u>Elevation</u> : 30-645 meters. <u>Blooms</u> : Perennial herb; March-June.	Unlikely. While the site provides potentially suitable habitat, the closest documented occurrence is more than three miles northeast of the site on San Bruno Mountain and dates back to the 1980's.
Saline clover (<i>Trifolium hydrophilum</i>)	CNPS 1B	<u>Habitat</u> : Marshes and swamps, mesic and alkaline areas of valley and foothill grasslands, and vernal pools. <u>Elevation</u> : 0-300 meters. <u>Blooms</u> : Annual herb; April-June.	Absent. Suitable habitat is absent on the site for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (CONTINUED adapted from CDFW 2019 and CNPS 2019)

Other special status plants listed by CNPS

Species	Status	Habitat	Occurrence in the Study Area
San Francisco owl's-clover (<i>Triphysaria floribunda</i>)	CNPS 1B	<u>Habitat</u> : Coastal prairie, coastal scrub, and valley and foothill grasslands. Usually occurs on serpentinite. <u>Elevation</u> : 10-160 meters. <u>Blooms</u> : April-June.	Unlikely. Only very marginal habitat occurs on the site due to the absence of serpentine soils.
Coastal triquetrella (<i>Triquetrella californica</i>)	CNPS 1B	<u>Habitat</u> : Moss that occurs on soil in coastal bluff scrub and coastal scrub. <u>Elevation</u> : 10-100 meters. <u>Blooms</u> : N/a.	Absent. Suitable habitat is absent on the site for this species.
Methuselah's beard lichen (<i>Usnea longissima</i>)	CRPR 4	<u>Habitat</u> : Occurs on tree branches; usually on old growth hardwoods and conifers within broadleafed upland forest and North Coast coniferous forest. <u>Elevation</u> : 50-1460 meters.	Absent. Suitable habitat is absent on the site for this species.

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (adapted from CDFW 2019 and USFWS 2019)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence in the Study Area
San Bruno elfin butterfly (<i>Callophrys mossii bayensis</i>)	FE	Eggs are laid on the host plant broadleaf stonecrop (<i>Sedum spathulifolium</i>) in coastal grassland and low scrub habitat within the fog belt at elevations from 275 to 325 meters.	Absent. Suitable habitat for this species is absent from the site. The host plant does not occur onsite. Additionally, the closest recorded observation of this species is approximately two miles from the site (CNDDDB 2019).
Mission blue butterfly (<i>Plebejus icarioides missionensis</i>)	FE	Occur in Martin, San Francisco, and San Mateo Counties, CA. Eggs are laid in grassland habitats on the larval food plant <i>Lupinus albifrons</i> , <i>L. varicolor</i> , or <i>L. formosus</i> .	Absent. This species is not known to occur within this area of San Bruno. Additionally, the closest recorded observation of this species is approximately 1.5 miles to the northwest of the site (CNDDDB 2019).
Callippe silverspot butterfly (<i>Speyeria callippe callippe</i>)	FE	Occurs on grassy hills surrounding the San Francisco Bay that support the host plant <i>Viola pedunculata</i> .	Absent. Suitable habitat for this species is absent from the site. The host plant does not occur onsite. Additionally, the closest recorded observation of this species is more than three miles from the site (CNDDDB 2019).
Myrtle’s silverspot butterfly (<i>Speyeria zerene myrtleae</i>)	FE	Occurs near Point Reyes, Martin County, and Sonoma County, CA in coastal dunes, coastal scrub, and coastal prairie habitats less than 300 meters in elevation and up to 5 km inland. Also historically found in San Mateo County, CA.	Absent. Suitable habitat for this species is absent from the site. The host plant does not occur onsite. Additionally, the closest recorded observation of this species is centered nearly three miles to the west of the site on the other side of the Santa Cruz Mountains (CNDDDB 2019).
California tiger salamander (<i>Ambystoma californiense</i>)	FT, CT	Breeds in vernal pools and stock ponds of central California; adults aestivate in grassland habitats adjacent to the breeding sites.	Absent. Suitable breeding habitat for this species in the form of stagnant pools with continuous inundation for a minimum of three months is absent from the site and the immediate vicinity. The nearest recorded observation of CTS is more than three miles from the site (CNDDDB 2019).
Foothill yellow-legged frog (<i>Rana boylei</i>)	CSC CCT	Occurs in swiftly flowing streams and rivers with rocky substrate with open, sunny banks in forest, chaparral, and woodland habitats, and can sometimes be found in isolated pools.	Absent. Suitable habitat for this species is absent from the site. Additionally, the closest recorded observation of this species is centered approximately 2 miles to the south of the site in the Santa Cruz Mountains (CNDDDB 2019).

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (CONTINUED adapted from CDFW 2019 and USFWS 2019)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	Occurrence in the Study Area
California Red-legged Frog (<i>Rana aurora draytonii</i>)	FT, CSC	Rivers, creeks and stock ponds of the Sierra foothills and Bay Area, preferring pools with overhanging vegetation.	Unlikely. Suitable breeding habitat for this species in the form of stagnant pools with continuous inundation for a minimum of three months is absent from the site. The nearest recorded observations of CRLF are directly across Skyline Boulevard from the site, which is less than a tenth of a mile to the west of the site (CNDDDB 2019) and across Glenview Drive. San Bruno is known to support CRLF in a variety of known locations and the DEIR (2008) for the City’s General Plan concluded that CRLF occur within the City limits. Although natural landcover still exists between the site and the record, they may be expected to rarely move on to the site from time to time, as there is some potential limitation for CRLF to access the site, due to the large roadway in between the site and the known location. The known location supports prime habitat, and the site generally supports poor habitat, with the exception of the dense vegetation within the chaparral and mixed woodland adjacent to Crestmoor Canyon, which may provide suitable upland habitat should a CRLF cross unsuitable habitat to get to it.

Species	Status	Habitat	Occurrence in the Study Area
San Francisco Garter Snake (<i>Thamnophis sirtalis terataenia</i>)	FE, CE, CP	Occur in and around standing water such as ponds on the San Francisco Peninsula south to Ano Nuevo Point, San Mateo County, CA.	Unlikely. Suitable breeding habitat for this species is absent from the site, however, suitable upland habitat does exist on the eastern side of the site in the form of dense vegetation within the chaparral and mixed woodland adjacent to Crestmoor Canyon. The CNDDDB (2019) presents occurrences of this species by quadrangle in order not to disclose exact locations; the quadrangle in which the site exists has a record for this species. , however, this species can be expected to occur close to water bodies and in similar areas where CRLF occur. Although the DEIR (2008) for the City’s General Plan concluded that SFGS occur within the City limits, and although they can and do move a distance away from permanent water sources, they are most likely to stay near these water sources, therefore, whereas it is not impossible for this species to occur onsite, the likely scenario of an individual occurring onsite would be rare and it would likely be only moving through the site.
Western pond turtle (<i>Actinemys marmorata</i>)	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes. Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	Unlikely. Although suitable upland habitat for the WPT occurs onsite in the form of the mixed woodland, suitable pools and ponds are absent from the site; therefore, it is unlikely they would occur onsite. Additionally, although the DEIR (2008) for the City’s General Plan concluded the WPT may exist in the stream area in the adjacent Crestmoor Canyon, San Bruno Creek within Crestmoor Canyon is known to hold water only seasonally and WPT are not known to occur in this area. The nearest recorded observation of this species is more than three miles to the south of the site (CNDDDB 2019).
Peregrine Falcon (<i>Falco peregrinus</i>)	CP	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	Unlikely. Nesting habitat is not present on the site or in the immediate vicinity of the site. However, the peregrine falcon may rarely forage over the site, predominantly during migration and winter months. As the CNDDDB (2019) presents occurrences of this species by quadrangle, the nearest documented occurrence of this species is located in the quadrangle north of the project site.
Burrowing Owl (<i>Athene cucularia</i>)	CSC	Found in open, dry grasslands, deserts and ruderal areas. Requires suitable burrows. This species is often associated with California ground squirrels.	Unlikely. Suitable habitat for BUOW is generally absent from the site, as the suitable burrows are few. Additionally, burrowing owls are not known from this area of San Bruno. The nearest documented occurrence of BUOW is more than three miles from the site (CNDDDB 2019).

TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

ANIMALS (CONTINUED adapted from CDFW 2019 and USFWS 2019)

State Species of Special Concern and Protected Species

Species	Status	Habitat	Occurrence in the Study Area
Saltmarsh Common Yellowthroat (<i>Geothlypis trichas sinuosa</i>)	CSC	Breeds in herbaceous wetlands and salt marshes of the San Francisco Bay area, can also be found in non-breeding along the California Coast. Nests in thick herbaceous vegetation up to one meter above the ground or over water	Possible. Breeding habitat is absent from the site, however, they are known to occur directly on the other side of Skyline Boulevard within a tenth of a mile from the site (CNDDDB 2019), therefore, they can be expected to move through and onto the site, especially during migration.
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	CSC	Found in tidal salt marsh habitat with exposed ground for foraging with no more than 2-5 cm between bases of plants. Current range is generally only along the San Francisco Bay.	Unlikely. Breeding habitat is absent from the site, however, this species may move through during migration. The nearest recorded observation of this species is along the San Francisco Bay, approximately 1.5 miles to the east of the site (CNDDDB 2019).
Townsend’s Big-eared bat (<i>Corynorhinus townsendii</i>)	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	Possible. Although suitable roosting habitat is presumed absent from the church, Townsend’s big-eared bats may roost in the residence or large tree cavities onsite and forage over the site. The nearest record is approximately 1.5 miles to the south of the site (CNDDDB 2019).
Pallid Bat (<i>Antrozous pallidus</i>)	CSC	Grasslands, chaparral, woodlands, and forests; most common in dry rocky open areas providing roosting opportunities.	Possible. Although suitable roosting habitat is presumed absent from the church, pallid bats may roost in the residence or tree cavities onsite and forage over the site. The nearest record is centered nearly three miles from the site (CNDDDB 2019).
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	CSC	Migrant bats using elevations from 0-2600 meters. Roosts in rock crevices cliffs as well as in buildings, caves, and tree cavities.	Possible. Although suitable roosting habitat is presumed absent from the church, big free-tailed bats may roost in the residence or tree cavities onsite and forage over the site. The nearest record is centered nearly three miles from the site (CNDDDB 2019).
San Francisco Dusky-Footed Woodrat (<i>Neotoma fuscipes annectens</i>)	CSC	Found in hardwood forests, oak riparian and shrub habitats.	Present. Woodrat nests were observed within the mixed woodland and may also occur within the chaparral onsite.
American badger (<i>Taxidea taxus</i>)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils, specifically grassland environments. Natal dens occur on slopes.	Possible. Although no burrows were observed on the site, it is possible this species may establish burrows on the grasslands of the site, although natal habitat does not exist on the site. The nearest documented observation is more than three miles from the site (CNDDDB 2019).

***Explanation of Occurrence Designations and Status Codes**

- Present: Species observed on the sites at time of field surveys or during recent past.
- Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
- Possible: Species not observed on the sites, but it could occur there from time to time.
- Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient.
- Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Protected
CSC	California Species of Special Concern		
		CCE	California Candidate Endangered
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more information – a review list
1B	Plants Rare, Threatened, or Endangered in California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		

2.4 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters, should they occur onsite, may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.5 of this report for additional information.

The site was examined for presence of jurisdictional waters, including wetlands. No areas meeting the definition of jurisdictional waters were identified on the site.

3 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant. According to *2019 CEQA Statute and Guidelines (2019)*, “Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered “significant” if they will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and

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

For the purposes of this report, it is assumed that impacts will be buildout of the entire property outside of the proposed riparian setbacks.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal “endangered species” legislation has provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal Endangered Species Acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “species of special status.” Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the take of a listed species. To “take” a listed species, as defined by the state of California, is “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” said species (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” of a listed species (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most bird species. The State of California signed Assembly Bill 454 into law in 2019, which clarifies native bird protection and increases protections where California law previously deferred to Federal law. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory

birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto”. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

Additionally, the Bald and Golden Eagle Protection Act (16 U.S.C., sec. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.4 Bats

Sections 2000 and 4150 of the California Fish and Game Code states that it is unlawful to take or possess a number of species, including bats, without a license or permit, as required by Section 3007. Additionally, Title 14 of the California Code of Regulations states it is unlawful to harass, herd, or drive a number of species, including bats. To harass is defined as “an intentional act which disrupts an animal's normal behavior patterns, which includes, but is not limited to, breeding, feeding or sheltering.” For these reasons, bat colonies in particular are considered to be sensitive and therefore, disturbances that cause harm to bat colonies are unlawful.

3.2.5 Wetlands and Other “Jurisdictional Waters”

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” or “jurisdictional waters” subject to the jurisdiction of the USACE.

The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

On June 29, 2015, the Environmental Protection Agency and USACE jointly issued the Clean Water Rule as a synthesis of statute, science, and U.S. Supreme Court decisions. The Clean Water Rule defines Waters of the U.S. to include the following:

1. All waters used in interstate or foreign commerce (also known as traditional navigable waters), including all waters subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. The territorial seas;
4. All impoundments of Waters of the U.S.;
5. All tributaries of waters defined in Nos. 1 through 4 above, where “tributary” refers to a water (natural or constructed) that contributes flow to another water and is characterized by the physical indicators of a bed and bank and an ordinary high water (OHW) mark;
6. Adjacent waters, defined as either (a) located in whole or in part within 100 feet of the OHW mark of waters defined in Nos. 1 through 5 above, or (b) located in whole or in part within the 100-year floodplain and within 1,500 feet of the OHW mark of waters defined in Nos. 1 through 5 above;
7. Western vernal pools, prairie potholes, Carolina bays and Delmarva bays, pocosins, and Texas coastal prairie wetlands, if determined on a case-specific basis to have a significant nexus to waters defined in Nos. 1 through 3 above;
8. Waters that do not meet the definition of adjacency, but are determined on a case-specific basis to have a significant nexus to waters defined in Nos. 1 through 3 above, and are either (a) located in whole or in part within the 100-year floodplain of waters defined in Nos. 1 through 3 above, or (b) located within 4,000 feet of the OHW mark of waters defined in Nos. 1 through 5 above.

The 2015 rule also redefines exclusions from jurisdiction, which include:

1. Waste treatment systems;
2. Prior converted cropland;

3. Artificially irrigated areas that would revert to dry land should application of irrigation water to the area cease;
4. Groundwater;
5. Stormwater control features constructed to convey treat or store stormwater created in dry land; and
6. Three types of ditches: (a) ditches with ephemeral flow that are not a relocated or excavated tributary, (b) ditches with intermittent flow that are not a relocated or excavated tributary or that do not drain wetlands, and (c) ditches that do not flow, either directly or through another water, to a traditional navigable water.

A ditch may be a water of the U.S. only if it meets the definition of “tributary” and is not otherwise excluded under the provision.

All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of California (“Waters of the State”). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into Waters of the State through the issuance of various permits and orders. Discharges into Waters of the State that are also Waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The RWQCB also administers the Construction Stormwater Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more

acres of soil must obtain a Construction General Permit under the Construction Stormwater Program. A prerequisite for this permit is the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, stormwater, or other pollutants into a Water of the U.S. may require a NPDES permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.2.6 City of San Bruno Protected Trees

City of San Bruno's Municipal Code Chapter 8.

The City of San Bruno defines a Protected Tree as:

Heritage tree:

- “1. Any native bay (*Umbellularia californica*), buckeye (*Aesculus species*), oak (*Quercus species*), redwood (*Sequoia sempervirens*), or pine (*Pinus radiata*) tree that has a diameter of six inches or more measured at fifty-four inches above natural grade;
2. Any tree or stand of trees designated by resolution of the city council to be of special historical value or of significant community benefit;
3. A stand of trees, the nature of which makes each dependent on the others for survival; or
4. Any other tree with a trunk diameter of ten inches or more, measured at fifty-four inches above natural grade.”

Prohibitions and protections include:

“It is unlawful for any person other than city personnel to cut, prune, remove, or interfere with any street tree or tree stake without first obtaining a permit from the director of public works. The application for a permit shall be made on forms provided for this purpose and shall state, among other things, the number and location of the trees to be removed or pruned by types and the reason for removal or pruning of each. The applicant may be required to submit an arborist's report with the permit application to show cause for a requested tree removal.

The director of public works or designee shall review each application and shall determine:

- A. The condition of the tree or trees with respect to disease, danger of falling, proximity to existing or proposed structures, and interference with utility services;
- B. The necessity to remove the tree or trees in order to construct any proposed improvements to allow reasonable economic enjoyment of the property;

- C. The topography of the land and the effect of the removal of the tree on erosion, soil retention and diversion or increased flow of surface waters;
- D. The number of trees existing in the neighborhood on improved property and the effect the removal would have on the established standard of the area and property values.

Street tree or other planting removals incorporated into any other permit issued by the city of San Bruno do not require a separate removal permit, provided those removals are clearly delineated on the approved plans and specifications. ...

Any heritage tree removed shall be replaced in accordance with Section 8.25.050. (Ord. 1669 § 1, 2002).”

3.2.7 San Bruno General Plan

Section 6-7 of the San Bruno General Plan (2009) includes conservation policies to protect environmental resources. Applicable policies are below.

GUIDING POLICIES

ERC-A Preserve open space essential for the conservation of San Bruno’s natural resources—including vegetation, wildlife, soils, water, and air.

ERC-B Protect the natural environment, including wildlife, from destruction during new construction or redevelopment within San Bruno.

ERC-C Recognize areas of overlapping jurisdiction with respect to open space and environmental resources, and coordinate the City’s actions with efforts of surrounding cities, agencies, and San Mateo County.

ERC-D Reduce pollution levels within the surface water that San Bruno discharges into the San Mateo County Flood Control District, then into San Francisco Bay.

ERC-E Contribute to regional attainment by improving ambient air quality levels within San Bruno.

ERC-F Preserve and enhance historic and cultural resources within the city, particularly within the historic Downtown area.

IMPLEMENTING POLICIES

Conservation

ERC-1 Preserve as open space those lands which are identified, through environmental review, as sensitive habitat areas. Require setbacks to development as buffer areas, as appropriate.

ERC-2 Preserve as open space those portions of property which have significant value to the public as scenic resources, aesthetic, or recreation purposes.

ERC-3 Protect natural vegetation in park, open space, and scenic areas as wildlife habitat, to prevent erosion, and to serve as noise and scenic buffers.

ERC-4 Encourage the use of Best Management Practices in conserving the city’s valuable water supply sources.

ENVIRONMENTAL

Biological Resources

ERC-5 Preserve critical habitat areas and sensitive species within riparian corridors, hillsides, canyon areas, tree canopies, and wetlands that are within the City's control (Figure 6-1). Protect declining or vulnerable habitat areas from disturbance during design and construction of new development.

ERC-6 Preserve wetland habitat in the San Francisco Bay Margins along the eastern edge of city land as permanent open space (Figure 6-1). Where jurisdiction allows, establish buffer zones at the edge of wetland habitats and identify buffer zones as areas to restrict development. Environmental concerns should be addressed during stormwater maintenance activities.

ERC-7 Ensure that construction adjacent to open canyon areas is sensitive to the natural environment. Preserve the natural topography and vegetation.

ERC-8 If development occurs adjacent to a wetlands area, ensure that a qualified biologist has conducted a wetlands delineation in accordance with federal and State guidelines.

ERC-9 Preserve mature trees and vegetation, including wildflowers, within open canyon areas and along the city's scenic roadways.

ERC-10 Require incorporation of native plants into landscape plans for new development as feasible—especially in areas adjacent to natural areas, such as canyons or scenic roadways (Figure 6-1). Require preservation of mature trees, as feasible, during design and construction.

ERC-11 Prohibit the use of any new non-native invasive plant species in any landscaped or natural area. Develop a program for abatement of non-native invasive species in open space or habitat areas.

ERC-12 Balance the need for fire safety and invasive plant species management with new considerations along the city's scenic corridors. Encourage buildings to be locked outside of the tree's drip-line or 12 feet from the tree trunk, whichever is greater, and/or incorporating special techniques to minimize root damage, etc.

ERC-13 Through environmental review, assure that all projects affecting resources of regional concern (e.g., the San Francisco garter snake habitat, water and air quality, the San Francisco Fish and Game Reserve) satisfy regional, State and federal laws.

ERC-14 Preserve wetlands habitat and associated species in compliance with the federal "no net loss" policy using mitigation measures such as:

- Avoidance of sensitive habitat areas;
- Clustering of development away from wetlands;
- Transfer of development rights for preservation of existing sensitive lands; and/or
- Compensatory in-kind mitigation, such as restoration or creation.

ERC-15 Consult with the California Department of Fish and Game to determine significant habitat areas. Identify priorities for acquisition or maintenance of open space areas based on biological or environmental concerns.

ERC-16 Conduct presence/absence biological surveys for sensitive plant and animal species in natural areas prior to any construction activities proposed adjacent to or within identified natural areas (Figure 6-1). If no special status species are detected during these surveys, then construction-related activities may proceed. If listed special status species are found within the construction zone, then avoid these species and their habitat or consult with U.S. Fish and Wildlife Service and/or California Department of Fish and Game.

ERC-17 If construction activities, including tree removal activities, are required adjacent to or within natural areas (Figure 6-1), then avoid activities during March through June unless a bird survey is conducted to determine that the tree is unused during the breeding season by avian species that are protected under California Fish and Game Codes 3503, 3503.5, and 3511.

ERC-18 Coordinate efforts with the San Mateo County Flood Control District, Caltrans, Golden Gate National Recreation Area, San Francisco Airport, Peninsula Watershed lands, and Junipero Serra County Park to develop or preserve and manage interconnecting wildlife movement corridors.

Water Resources

ERC-19 Regulate new development—specifically industrial uses—as well as construction and demolition practices to minimize pollutant and sediment concentrations in receiving waters and ensure waterbodies within San Bruno and surface water discharged into San Francisco Bay meets or exceeds relevant regulatory water quality standards.

ERC-20 Require implementation of Best Management Practices to reduce accumulation of non-point source pollutants in the drainage system originating from streets, parking lots, residential areas, businesses, and industrial operations.

ERC-21 environmental effects of dumping household waste, such as motor oil, into storm drains that eventually discharge into San Francisco Bay.

ERC-22 Regularly measure and monitor water quality in San Bruno’s surface water to ensure maintenance of high quality water for consumption by humans and other species throughout the region.

ERC-23 Regulate new development to minimize stormwater runoff rates and volumes generated by impervious surfaces, and maximize recharge of local groundwater aquifers when feasible. Utilize the recommendations provided in the Bay Area Stormwater Management Agency’s *Start at the Source Design Guidance Manual for Stormwater Quality Protection*.

ERC-24 Require that new development incorporate features into site drainage plans that reduce impermeable surface area and surface runoff volumes. Such features may include:

- Additional landscaped areas including canopy trees and shrubs;
- Reducing building footprint;
- Removing curbs and gutters from streets and parking areas where appropriate to allow stormwater sheet flow into vegetated areas;
- Permeable paving and parking area design;

- Stormwater detention basins to facilitate infiltration; and
- Building integrated or subsurface water retention facilities to capture rainwater for use in landscape irrigation and other non-potable uses.

3.3 IMPACTS SPECIFIC TO THE PROJECT

The project, as proposed, would develop most of the site as a residential development with two detention basins and with a landscaped defensible space on the eastern edge. This would impact developed/landscaped areas, California annual grassland, chaparral mixed woodland, a potential wetland, and two erosional features. As discussed above, activities resulting in impacts to biotic resources may be regulated by local, state, and federal laws. The natural resource issues specific to this project are discussed in detail below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impact. Most special status plants occurring, or once known to occur, in the project vicinity are considered either absent from or unlikely to occur on the site because: no suitable or only marginally suitable habitat is present; the only known occurrences are more than five miles from the site; and/or the species has not been observed in the region for at least several decades. However, three species are considered possibly to occur on the site and cannot be ruled out based on reconnaissance-level surveys. The latter species include robust spineflower (blooms April through September); Franciscan onion (blooms May through June); and arcuate bush-mallow (blooms April through September). Any project impacts that occur within the woodland and chaparral habitats of the site have potential to impact these species if they are present and impacts may be considered significant under CEQA.

Mitigation. Three properly-timed, focused surveys in April, June and September by a qualified botanist or plant ecologist should be conducted on the site to determine whether the project would significantly impact populations of these species. The surveys should follow the most recent CNPS and CDFW rare plant survey protocols.

Should properly-timed focused surveys determine that these species are absent from the site, then no mitigation would be required. If populations of these species are present on the site and occur within areas of the site that will be impacted by the proposed project, then the qualified botanist

or plant ecologist will determine whether the project will result in a significant impact to these populations. If a less-than-significant impact is determined, then no mitigation would be required.

If populations of these species are present, and if a qualified botanist or plant ecologist determines that project impacts to these species would be significant, then the following mitigations will be implemented:

Avoidance. In consultation with a qualified botanist or plant ecologist, and to the maximum extent feasible, the project will be designed to avoid significant direct and indirect impacts to these species by preservation of the populations with an appropriately-sized buffer.

Compensation. If the project cannot be designed to avoid significant impacts to special status plant populations, then the following compensatory measures will be implemented.

Development of an Onsite or Offsite Restoration Plan. If the project cannot be designed to avoid significant impacts to special status plants (as discussed above), then an onsite or offsite restoration plan must be developed for the significantly impacted species by a qualified botanist or plant ecologist and approved by the City prior to the start of project development. The objective of this mitigation measure would be to replace the special status plants and habitat lost during project implementation.

A proposed onsite restoration program should be monitored for a period of five years from the date of site grading. The restoration plan should contain at a minimum the following:

- Identification of appropriate locations either onsite or offsite as determined by the botanist or plant ecologist (i.e., areas with suitable soils, aspect, hydrology, etc.) to restore lost plant populations.
- A description of the propagation and planting techniques to be employed in the restoration effort. Perennial plants to be impacted by site grading should be salvaged and raised in a greenhouse for eventual transplanting within the restoration areas. Annual plants can best be established by collecting seeds of onsite plants prior to project implementation and then directly seeding into suitable habitat on the conservation area.
- A timetable for implementation of the restoration plan.

- A monitoring plan and performance criteria.
- A description of remedial measures to be performed in the event that initial restoration measures are unsuccessful in meeting the performance criteria.
- A description of site maintenance activities to follow restoration activities. These may include weed control, irrigation, and control of herbivory by livestock and wildlife.

Development of an Off-site Mitigation Plan. If an onsite restoration plan is not feasible, mitigation for impacted special status plant species could be accommodated through restoration or preservation at an off-site location. Any offsite restoration plan would be subject to the same minimum requirements as indicated above for an onsite restoration plan.

If off-site preservation is the mitigation alternative chosen, then the mitigation site must be confirmed to support populations of the impacted species and must be preserved in perpetuity via deed restriction, establishment of a conservation easement, or similar preservation mechanism. A qualified botanist or plant ecologist should prepare a Preservation Plan for the site containing, at a minimum, the following elements:

- A monitoring plan and performance criteria for the preserved plant population.
- A description of remedial measures to be performed in the event that performance criteria are not met.
- A description of maintenance activities to be conducted on the site including weed control, trash removal, irrigation, and control of herbivory by livestock and wildlife.

The project proponent will be responsible for funding the development and implementation of any onsite or off-site plan.

Purchase of Suitable Mitigation Bank Credits. To our knowledge, no mitigation banks currently exist that provide mitigation credits for any of the special status plant species having potential to occur on the site; however, should mitigation bank credits become available, then the purchase of credits could also be used to mitigate significant impacts.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impact. Nineteen (19) special status animal species occur, or once occurred, regionally. Of these, thirteen species would be absent or unlikely to occur on the site due to a lack of suitable habitat for these species. The species that would be absent or unlikely to occur include the San Bruno elfin butterfly, Mission blue butterfly, Callippe silverspot butterfly, Myrtle's silverspot butterfly, California tiger salamander, Foothill yellow-legged frog, California red-legged frog, San Francisco garter snake, western pond turtle, bank swallow, Alameda song sparrow, peregrine falcon, and burrowing owl.

The remaining six special status animal species from Table 1 potentially occur more frequently as potential foragers, transients, or they may occur within areas adjacent to the site. These include the saltmarsh common yellowthroat, Townsend's big-eared bat, pallid bat, big free-tailed bat, San Francisco dusky-footed woodrat, and American badger. Although no evidence of bats was observed for either building onsite, onsite trees may support suitable cavities and tree canopies for these and other bat species. Additionally, these and other common bat species may forage over the site from time to time.

Potential impacts to specific species are discussed further below.

Mitigation. No mitigation warranted.

3.3.3 Loss of Habitat for Native Wildlife

Potential Impact. The habitats of the site comprise only a small portion of the regionally available habitat for plant and animal species that are expected to use the habitat. The proposed project would result in the loss of developed and landscaped habitat. This is not expected to result in a significant effect on local wildlife. Therefore, impacts due to the loss of habitats for native wildlife resulting from the proposed project are considered less-than-significant.

Mitigation. No mitigation warranted.

3.3.4 Interference with the Movement of Native Wildlife

Potential Impact. Buildout of the site would not constrain native wildlife movement, and the site does not support a major wildlife movement corridor. Wildlife regularly moves through neighborhoods along streets and in yards, and any wildlife moving through the site would continue to be able to move through it after site development.

Mitigation. No mitigation warranted.

3.3.5 Impacts to Nesting Migratory Birds Including Nesting Raptors and other Protected Birds

Potential Impacts. Trees and shrubs of landscaped areas, the church and residence, and the natural woodlands onsite may support nesting migratory birds and raptors. Impacts to nesting migratory birds and raptors may be considered a significant impact.

Mitigation. To reduce impacts to a less-than-significant level, the applicant will implement the following mitigation to reduce impacts to nesting migratory birds and raptors.

- **Mitigation Measure 3.3.5a:** Should project construction be scheduled to commence between February 1 and August 31, a pre-construction survey will be conducted by a qualified biologist for nesting birds within the onsite trees as well as all trees within 250 feet of the site, if accessible. This survey will occur within 30 days of the on-set of construction.
- **Mitigation Measure 3.3.5b:** If pre-construction surveys undertaken during the nesting season locate active nests within or near construction zones, these nests, and an appropriate buffer around them (typically 50 feet for passerines and 200 feet for raptors) will remain off-limits to construction until the nesting season is over. Suitable setbacks from occupied nests will be established by a qualified biologist and maintained until the conclusion of the nesting season.

Implementation of the above measures would reduce impacts to the nesting migratory birds and raptors to a less-than-significant level.

3.3.6 Impacts to Roosting Bats

Potential Impacts. Although the church does not support suitable habitat for roosting bats, the residence does have access points which bats may use. Trees on the site, especially in the mixed woodland, may also have tree cavities and dense foliage which may support roosting bats.

Mitigation. Implementation of the following mitigation measures would reduce impacts to roosting bats to a less-than-significant level.

- **Mitigation Measure 3.3.8a:** A habitat assessment to identify potentially suitable roosting trees onsite shall be conducted by a qualified biologist. During this assessment, the biologist will examine trees and buildings of the site to determine which trees or buildings have the potential to support roosting bats; potential roost sites may have bats, urine staining, characteristic smell, or physical characteristics which have the potential to support roosting bats.
- **Mitigation Measure 3.3.8b:** A daytime survey for bats by a qualified biologist shall be conducted to determine if the potentially suitable habitat within the residence and trees identified during the habitat assessment are occupied. This is conducted visually using binoculars in some cases, and depending on what is identified as roosting habitat, and the preferences of the applicant, a boom truck or other man lift may be used to access higher areas such as trees. Although daytime surveys may occur any time of year, for any areas that cannot be surveyed directly (e.g., ceiling panels, tree cavities, etc.), an emergence survey may be required. As a false-negative finding can occur if emergence surveys are conducted in overwintering months, emergence surveys would be conducted during times of the year when bats are volant (March 1 through October 15). Emergence surveys occur when bat species emerge from their roosts for the night; this typically includes some time before dark and a up to a few hours after dark, but can vary based on the species expected to occur in areas identified as potential roosting areas.
- **Mitigation Measure 3.3.8c:** If a maternity colony is located during the period of April 15 to August 15, the area should be avoided by construction activities, and a qualified biologist should establish an appropriately sized construction-free buffer, to be determined by the biologist depending on the type of proposed impact, maternity colony roost location and topography of where the maternity colony roost is located, and can typically range between 50-100 feet. This buffer should remain in place until the end of the maternity season.
- **Mitigation Measure 3.3.8d:** Should a colony or roosting bat be identified onsite outside of the maternity and overwintering seasons (i.e., March 1-April 15 and August 15-October 15, respectively), a two-step passive removal may occur under the supervision of and with instruction from a qualified biologist. The two-step

removal would require that a qualified biologist direct specific demolition actions within the vicinity of the roosting bat/colony to safely render the roosting location less-suitable. One day after the partial demolition the biologist would return to the site to verify that the bat/colony has self-relocated off-site. Once such a verification is made, the construction crew would be required to complete the demolition effort immediately (within 24 hours) to ensure bats are absent during demolition.

3.3.7 Impacts to San Francisco Dusky-Footed Woodrats

Potential Impacts. The woodlands of the site support woodrat nests. Construction activities could result in harm to individual woodrats while in their nests. This would be considered a significant impact under CEQA.

Mitigation. Implementation of the following mitigation measures would reduce impacts to the San Francisco dusky-footed woodrat to a less-than-significant level.

- **Mitigation Measure 3.3.9a:** A qualified biologist should conduct a pre-construction survey for San Francisco dusky-footed woodrat nests no more than 30 days prior to the onset of construction activities within 50 feet of construction zones.
- **Mitigation Measure 3.3.9b:** Identified nests should be avoided, where possible. If avoidance is not possible, the nest(s) should be manually deconstructed when helpless young are not present, typically during the non-breeding season (October through January).
- **Mitigation Measure 3.3.9c:** If it is determined that young may be present during the pre-construction survey, a suitable buffer, depending on the type of proposed impact, nest location and topography of where the nest is located, shall be established by the qualified biologist (typically ranges between 20-50 feet). should be established around the nest until the young are independent enough to successfully move from the nest to be deconstructed.

Implementation of the above measures would reduce impacts to San Francisco dusky-footed woodrats to a less-than-significant level.

3.3.8 Impacts to American Badgers

Potential Impacts. Although the May 2019 survey showed no sign of badgers, nearby habitat is close enough badgers may move onto the site. The harm, injury or mortality of individuals from

site development would be considered significant. Should site grading occur while a badger is inside a den, they may be buried in their den. Any actions related to site development that result in the mortality of badgers would constitute a significant adverse environmental impact.

Mitigation. Implementation of the following mitigation measures would reduce impacts to the American badger to a less-than-significant level.

- **Mitigation Measure 3.3.10a:** Pre-construction surveys conducted for nesting birds should also be used to determine the presence or absence of badgers in the development footprint.
- **Mitigation Measure 3.3.10b:** If an active badger den is identified during pre-construction surveys within or immediately adjacent to the construction envelope, a construction-free buffer of up to 300 feet (or distance specified by the resource agencies, i.e., CDFW) should be established around the den. Because badgers are known to use multiple burrows in a breeding burrow complex, a biological monitor should be present onsite during construction activities to ensure the buffer is adequate to avoid direct impact to individuals or abandonment of young. The monitor would be necessary onsite until it is determined that young are of an independent age and construction activities would not harm individual badgers.
- **Mitigation Measure 3.3.10c:** Once it has been determined that badgers have vacated the site, the burrows can be collapsed or excavated, and ground disturbance can proceed.

Implementation of the above measures would reduce impacts to American badgers to a less-than-significant level.

3.3.9 Potential Impacts to Riparian Habitat and Other Sensitive Natural Communities, Including Federally and State Protected Wetlands

Potential Impacts. No areas meeting the definition of jurisdictional waters were identified on the site. Riparian habitats and wetlands were also absent. Therefore, project buildout would not result in impacts to such habitats.

Mitigation. Mitigation measures are not warranted.

3.3.10 Conflict with Local Policies and Ordinances: San Bruno General Plan

Section 6-7 of the San Bruno General Plan (2009) includes guiding principles for environmental resources. Failure to comply with the General Plan policies (Section 3.2.7) could constitute as, a significant impact under CEQA. However, the proposed project would ensure compliance with the General Plan which would ensure there is no project conflict with the General Plan.

Mitigation. No mitigation warranted.

3.3.11 Habitat Conservation Plan, Natural Community Conservation Plan or Other Approved Local, Regional, or State Habitat Conservation Plan

The only Habitat Conservation Plan (HCP) or Natural Communities Conservation Plan that San Mateo County is currently participating in is the San Bruno Mountain HCP (2010), which does not include the project site. The county is not participating in any other such plans.

Mitigation. No mitigation warranted.

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Tree Report

Glenview Terrace San Bruno CA

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Tree Report
Glenview Terrace
San Bruno CA

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Tree Assessment Form

Tree Assessment Map

Tree Report

Glenview Terrace San Bruno CA

Introduction and Overview

Raney Planning and Management Inc. is assisting the City of San Bruno with environmental review of an application to re-develop a property located on Glenview Drive in San Bruno CA. Existing site use consists of an abandoned religious facility and residence with associated parking and landscape. Raney Planning and Management Inc. requested that HortScience | Bartlett Consulting, divisions of the F.A. Bartlett Tree Expert Company, assess trees within, and immediately adjacent to, the proposed project area, evaluate project plans, and recommend action consistent with City of San Bruno requirements. This report presents the following information:

1. Evaluation of tree health and structural condition.
2. Evaluation of project plans.
3. Recommendations for action.

Tree Assessment Methods

Trees were assessed in June 2019. The survey was limited to trees greater than 5-inches diameter. The assessment procedure was a visual assessment from the ground, consisting of the following steps:

1. Identifying the tree as to species.
2. Attaching a numerically coded metal tag to the trunk of each tree.
3. Recording the tree's location on a map.
4. Measuring the trunk diameter at a point 54-inches above grade.
5. Evaluating the health and structural condition using a scale of 0 – 5:
 - 5** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4** - Tree with slight decline in vigor, small amount of twig dieback, or minor structural defects that could be corrected.
 - 3** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormic shoots (secondary shoots that arise along the trunk and branches); extensive structural defects that cannot be abated.
 - 0** - Tree is dead.
6. Commenting on the presence of defects in structure, insects or diseases and other aspects of development.
7. Evaluating suitability for preservation as low, moderate and high.

Some trees were located on adjacent parcels with limited access. Such trees were included in the assessment and given a tree tag number. Assessment of trunk diameter, tree health and structural condition was limited to what could be observed from the subject property.

Description of Trees

Sixty-one (61) trees of 10 species were evaluated (Table 1). Trees were both planted and naturally occurring. Coast live oak and toyon are native to the San Bruno area. Trees of these two species (29 total) appeared to be indigenous to the site. They were concentrated on the east side of the property. Trees of the remaining eight species had been planted as part of landscape development and were concentrated on the west side of the property. Species present were typical of those found in San Bruno landscapes.

Table 1. Species present and tree condition. Glenview Terrace. San Bruno CA.

Common name	Scientific name	Condition					No. of Trees	
		Dead (0)	Poor (1,2)	Fair (3)	Good (4)	Excell. (5)	Heritage	Total
Japanese maple	<i>Acer palmatum</i>	--	--	--	--	--	--	1
Deodar cedar	<i>Cedrus deodara</i>	--	1	2	--	--	2	3
Blue gum	<i>Eucalyptus globulus</i>	--	--	1	--	--	1	1
Monterey cypress	<i>Hesperocyparis macrocarpa</i>	--	1	5	3	1	5	10
Toyon	<i>Heteromeles arbutifolia</i>	--	2	5	--	--	5	7
Italian stone pine	<i>Pinus pinea</i>	--	1	3		--	4	4
Monterey pine	<i>Pinus radiata</i>	1	5	3	1	1	7	11
Scots pine	<i>Pinus sylvestris</i>	--	1	--	--	--	--	1
Coast live oak	<i>Quercus agrifolia</i>	--	5	14	3	--	22	22
Coast redwood	<i>Sequoia sempervirens</i>	--	--	1	--	--	1	1
Total, all trees assessed		1	16	34	8	2	47	61

Coast live oak was the most frequently occurring species with 22 trees (Photo 1). Trees ranged from young to mature in development. Trunk diameters varied from 6- to 27-inches in diameter. Most stems were 12-inches or smaller in diameter. Approximately 50% of oaks had more than one stem that arose close to the ground.



Photo 1. Looking east towards dense area of coast live oaks (red circle) and toyon trees.

Tree condition was generally fair (14 trees). Five oaks were in poor condition while tree #105, 107, and 140 were good. The primary factor influencing tree condition was growing space and competition for it. Oaks were often crowded, leading to asymmetric form and structure, and high crowns. Trees in poor condition were suppressed in development.

Eleven Monterey pines were present. Trees ranged from young to mature in development with trunk diameters between 6- and 22-inches. Pine #156 (19-inches) was dead. Five pines were in poor condition while three were fair. Monterey pine #125 was in good condition while pine #151 was excellent. Most trees lacked vigor and had thin canopies of foliage, likely due to a long history of water stress and lack of irrigation.

Ten Monterey cypresses were present (Photo 2). Trees ranged from young to mature in development with trunk diameters between 6- and 25-inches. Five trees were in fair condition and cypress #115 was poor. In contrast, trees #117, 120, and 121 were in good condition and cypress #122 was excellent. Most trees lacked vigor and had thin canopies of foliage, likely due to a long history of water stress and lack of irrigation.



Photo 2. Several Monterey cypresses were clustered together near Glenview Drive.

Seven toyons were present. These were large shrubs with multiple stems and high crowns. Tree condition was either poor (2 trees) or fair (5). The largest individual stem was 9-inches. The primary determinant of tree condition was crowding.

No other species was represented by more than three trees. Included in this group were:

- Blue gum #109 had trunks of 39- and 17-inches. This mature tree was in fair condition with a one-sided crown and multiple stems that arose at 7-feet.
- Coast redwood #102 was 17-inches and in fair condition. The crown was one-sided to the west, the central leader had been lost, and the tree lacked vigor.
- Deodar cedars #136, 148 and 150 were semi-mature in development. Tree #136 was in poor condition while #148 and 150 were fair. All three trees lacked vigor.
- Italian stone pines #111, 112, 124 and 128 were mature in development. The largest single stem was 19-inches. Tree #112 was in poor condition with a strong lean. Pines #111, 124 and 128 were fair condition with codominant trunks near the ground.
- Japanese maple #106 was a typical small tree in good condition. The trunk was 1-foot from the foundation.
- Scots pine #152 was 6-inches and in very poor condition.

Description of individual trees is found on the enclosed **Tree Assessment Form**. Tree locations are found on the **Tree Assessment Map**. Both are included as **Attachments**.

The City of San Bruno has several criteria to determine if a tree has Heritage status:

- Any native bay (*Umbellularia californica*), buckeye (*Aesculus* species), oak (*Quercus* species), redwood (*Sequoia sempervirens*), or pine (*Pinus radiata*) tree that has a diameter of six (6) inches or more measured at fifty-four (54) inches above natural grade;
- Any tree or stand of trees designated by resolution of the city council to be of special historical value or of significant community benefit;
- A stand of trees, the nature of which makes each dependent on the others for survival; or
- Any other tree with a trunk diameter of ten (10) inches or more, measured at fifty-four (54) inches above natural grade.

The City's Heritage Tree Ordinance declares such trees, whether located on City or private property, to be an asset to the community at large and provides penalties for removing or improperly pruning these trees.

Based on HortScience | Bartlett Consulting's observations, 47 of the 61 trees assessed met these criteria.

Suitability for Preservation

Trees that are preserved on sites where development or other improvements are planned, must be carefully selected to make sure that they may survive construction impacts, adapt to a new environment and perform well in the landscape. Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees. Trees in good condition are in better health than those in poor condition.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Defects such as codominant or multiple stems, lean and other deviations from the vertical, heavy branches and decay are problematic and may increase the potential for a tree to fail.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. In our experience, Mexican fan palm, Calif. fan palm, olive, coast redwood and coast live oak have good tolerance to construction impacts while Monterey pine, Monterey cypress and acacias are sensitive.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.

▪ **Species invasiveness**

Species which spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (www.cal-ipc.org) lists species identified as being invasive. San Bruno is part of the Central West Floristic Province. None of the species present are listed as having invasive potential.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (Table 2).

Table 2. Tree suitability for preservation. Glenview Terrace. San Bruno CA.

High	Trees with good health and structural stability that have the potential for longevity at the site. Monterey cypress #122 and Monterey pine #151 were rated as having high suitability for preservation.
Moderate	Trees in fair health and/or possessing structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the "high" category. Eighteen (18) trees were rated as having moderate suitability for preservation: coast live oak #101, 105, 107, 131, 134, 137, 138, 140, 142, 144, 161; Monterey cypress #117, 120, 121, 125; Deodar cedar #148; Italian stone pine #128; and Japanese maple #106.
Low	Trees in poor health or possessing significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Forty (40) trees were rated as having low suitability for preservation: coast live oak #103, 133, 135, 145, 146, 147, 149, 153, 155, 157; Monterey pine #104, 108, 110, 1113, 114, 127, 129, 130; toyon #132, 139, 141, 143, 158, 159, 160; Monterey cypress #115, 116, 118, 119, 123, 126; Italian stone pine #111, 112, 124; Deodar cedar #136, 150; Scots pine #152 and blue gum #109.

Note: table does not included Monterey pine #156 which was dead.

We consider trees with high suitability for preservation to be the best candidates for preservation during development. We do not generally recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Evaluation of Impacts and Recommendations for Action

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The tree assessment was the reference point for tree condition and quality. Impacts from the proposed project were assessed using the site plan prepared by Panko, project architects.

The site plan illustrated 29 units of housing and a new road/driveway system. The site will be redeveloped from property line to property line. Impacts to trees will be severe. The existing structures, driveways and utilities would be demolished and replaced. Activities such as grading, installation of utilities and construction of new homes may damage tree crowns and roots.

Based on HortScience | Bartlett Consulting's assessment of the trees and evaluation of proposed project plans, HortScience recommends preservation of coast live oaks #101 and 131, and toyon #132, all of which are located on adjacent properties (Table 3, page 8). Each of these trees has Heritage status. HortScience | Bartlett Consulting recommends removal of 58 trees of which 44 are Heritage. Trees recommended for removal were located within the proposed development area. Because the entire site will be demolished and regraded, there is little opportunity for preservation of on-site trees. Among the 44 Heritage trees proposed for removal, 31 had low suitability for preservation while 13 had moderate suitability (Table 3, page 8).

Tree Preservation Guidelines

The following are recommendations for design and construction phases that will assist in successful tree preservation.

Design recommendations

1. Verify the location and tag numbers of all trees to be preserved. Include trunk locations and tag numbers on all plans.
2. Allow the Consulting Arborist the opportunity to review project plans, including but not limited to, site, grading, drainage and landscape plans.
3. Use only herbicides safe for use around trees and labeled for that use, even below pavement.

Pre-construction and demolition treatments and recommendations

1. Establish a **TREE PROTECTION ZONE** around each tree to be preserved. Because the three trees recommended for preservation are located on adjacent properties, the **TREE PROTECTION ZONE** shall be the property line. No grading, excavation, construction or storage of materials shall occur beyond the property line.
2. Install protection around all trees to be preserved. The project's security fence will serve as tree protection fencing.
3. Trees to be retained may require pruning to provide clearance and/or correct defects in structure. All pruning is to be performed by an ISA Certified Arborist or Certified Tree Worker and shall adhere to the latest editions of the ANSI Z133 and A300 standards as well as the ISA Best Management Practices for Tree Pruning. Pruning contractor shall have the C25/D61 license specification.

Tree protection during construction

1. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.
2. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
3. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.

HortScience, Inc.



James R. Clark, Ph.D.
Certified Arborist WE-0846
Registered Consulting Arborist #357

Table 3. Proposed action. Glenview Terrace. San Bruno CA.

Tree No.	Common name	Trunk Diameter (in.)	Heritage Tree ?	Condition 1=poor 5=excell.	Proposed Action	Notes
101	Coast live oak	26	Yes	3	Preserve	Off-site; prune for clearance
102	Coast redwood	17	Yes	3	Remove	Within development area; low suitability for preservation
103	Coast live oak	16	Yes	3	Remove	Within development area; low suitability for preservation
104	Monterey pine	12	Yes	1	Remove	Within development area; low suitability for preservation
105	Coast live oak	8	Yes	4	Remove	Within development area
106	Japanese maple	6	No	4	Remove	Within development area
107	Coast live oak	5,4,3,3	Yes	4	Remove	Within development area
108	Monterey pine	22,16	Yes	3	Remove	Within development area; low suitability for preservation
109	Blue gum	39,17	Yes	3	Remove	Within development area; low suitability for preservation
110	Monterey pine	14,12	Yes	3	Remove	Within development area; low suitability for preservation
111	Italian stone pine	19,10	Yes	3	Remove	Within development area; low suitability for preservation

Table 3, continued. Proposed action. Glenview Terrace. San Bruno CA.

Tree No.	Common name	Trunk Diameter (in.)	Heritage Tree ?	Condition 1=poor 5=excell.	Proposed Action	Notes
112	Italian stone pine	13	Yes	2	Remove	Within development area; low suitability for preservation
113	Monterey pine	16,9	Yes	3	Remove	Within development area; low suitability for preservation
114	Monterey pine	17	Yes	2	Remove	Within development area; low suitability for preservation
115	Monterey cypress	10,6	Yes	2	Remove	Within development area; low suitability for preservation
116	Monterey cypress	9,7,6,4	Yes	3	Remove	Within development area; low suitability for preservation
117	Monterey cypress	7	No	4	Remove	Within development area
118	Monterey cypress	6,4,3	No	3	Remove	Within development area; low suitability for preservation
119	Monterey cypress	6	No	3	Remove	Within development area; low suitability for preservation
120	Monterey cypress	6	No	4	Remove	Within development area
121	Monterey cypress	25	Yes	4	Remove	Within development area
122	Monterey cypress	9	No	5	Remove	Within development area

Table 3, continued. Proposed action. Glenview Terrace. San Bruno CA.

Tree No.	Common name	Trunk Diameter (in.)	Heritage Tree ?	Condition 1=poor 5=excell.	Proposed Action	Notes
123	Monterey cypress	10,5	Yes	3	Remove	Within development area; low suitability for preservation
124	Italian stone pine	11,10	Yes	3	Remove	Within development area; low suitability for preservation
125	Monterey pine	14	Yes	4	Remove	Within development area
126	Monterey cypress	13	Yes	3	Remove	Within development area; low suitability for preservation
127	Monterey pine	6	No	2	Remove	Within development area; low suitability for preservation
128	Italian stone pine	14,12	Yes	3	Remove	Within development area
129	Monterey pine	19	Yes	2	Remove	Within development area; low suitability for preservation
130	Monterey pine	6	No	1	Remove	Within development area; low suitability for preservation
131	Coast live oak	18,16,9,8,7,6,6	Yes	3	Preserve	Outside development area
132	Toyon	9,4	Yes	2	Preserve	Outside development area
133	Coast live oak	7,5	Yes	2	Remove	Within development area; low suitability for preservation
134	Coast live oak	11	Yes	3	Remove	Within development area

Table 3, continued. Proposed action. Glenview Terrace. San Bruno CA.

Tree No.	Common name	Trunk Diameter (in.)	Heritage Tree ?	Condition 1=poor 5=excell.	Proposed Action	Notes
135	Coast live oak	10,5,3	Yes	3	Remove	Within development area; low suitability for preservation
136	Deodar cedar	8	No	2	Remove	Within development area; low suitability for preservation
137	Coast live oak	10,8	Yes	3	Remove	Within development area
138	Coast live oak	11	Yes	3	Remove	Within development area
139	Toyon	7,6	Yes	3	Remove	Within development area; low suitability for preservation
140	Coast live oak	12,9	Yes	4	Remove	Within development area
141	Toyon	6	No	2	Remove	Within development area; low suitability for preservation
142	Coast live oak	9	Yes	3	Remove	Within development area
143	Toyon	6,4,4	No	3	Remove	Within development area; low suitability for preservation
144	Coast live oak	6	Yes	3	Remove	Within development area
145	Coast live oak	10,6	Yes	2	Remove	Within development area; low suitability for preservation
146	Coast live oak	9,6	Yes	3	Remove	Within development area; low suitability for preservation

Table 3, continued. Proposed action. Glenview Terrace. San Bruno CA.

Tree No.	Common name	Trunk Diameter (in.)	Heritage Tree ?	Condition 1=poor 5=excell.	Proposed Action	Notes
147	Coast live oak	6,5	Yes	3	Remove	Within development area; low suitability for preservation
148	Deodar cedar	11,10,6	Yes	3	Remove	Within development area
149	Coast live oak	8,7	Yes	3	Remove	Within development area; low suitability for preservation
150	Deodar cedar	10,8,6	Yes	3	Remove	Within development area; low suitability for preservation
151	Monterey pine	7	No	5	Remove	Within development area
152	Scots pine	6	No	1	Remove	Within development area; low suitability for preservation
153	Coast live oak	8	Yes	2	Remove	Within development area; low suitability for preservation
154	Coast live oak	9	Yes	2	Remove	Within development area; low suitability for preservation
155	Coast live oak	7	Yes	2	Remove	Within development area; low suitability for preservation
156	Monterey pine	19	No	0	Remove	Dead
157	Coast live oak	27	Yes	3	Remove	Within development area; low suitability for preservation

Table 3, continued. Proposed action. Glenview Terrace. San Bruno CA.

Tree No.	Common name	Trunk Diameter (in.)	Heritage Tree ?	Condition 1=poor 5=excell.	Proposed Action	Notes
158	Toyon	11,9,5,5	Yes	3	Remove	Within development area; low suitability for preservation
159	Toyon	6,5,4,4,4	Yes	3	Remove	Within development area; low suitability for preservation
160	Toyon	9,8,8,6,6,5,5	Yes	3	Remove	Within development area; low suitability for preservation
161	Coast live oak	24,17	Yes	3	Remove	Within development area

ATTACHMENTS

Tree Assessment Form

Tree Assessment Map

Tree Assessment

Glenview Terrace
San Bruno CA
June 2019



TREE No.	SPECIES	TRUNK DIAMETER (in.)	HERITAGE TREE?	CONDITION (0=dead) (5=excell.)	SUITABILITY for PRESERVATION	COMMENTS
101	Coast live oak	26	Yes	3	Moderate	Off-site ; multiple attachments @ 5'; leaning & one-sided to E.; crown extends over driveway.
102	Coast redwood	17	Yes	3	Low	One-sided to S.; lost central leader; lacks vigor.
103	Coast live oak	16	Yes	3	Low	Multiple attachments @ 5'; 3 stems; all separating.
104	Monterey pine	12	Yes	1	Low	Just poor; codominant trunks @ 4' x'd; very thin canopy.
105	Coast live oak	8	Yes	4	Moderate	Crowded but okay.
106	Japanese maple	6	No	4	Moderate	1' from foundation; one-sided to N.
107	Coast live oak	5,4,3,3	Yes	4	Moderate	Multiple attachments @ base; big shrub.
108	Monterey pine	22,16	Yes	3	Low	Codominant trunks @ 4'; lean apart; lacks vigor.
109	Blue gum	39,17	Yes	3	Low	Codominant trunks @ 2'; one-sided to SE.; multiple attachments @ 7'.
110	Monterey pine	14,12	Yes	3	Low	Codominant trunks @ 1'; leans S.
111	Italian stone pine	19,10	Yes	3	Low	Codominant trunks @ 1'; lost central leader; big shrub.
112	Italian stone pine	13	Yes	2	Low	Leaning & one-sided to S.; base outside of dripline.
113	Monterey pine	16,9	Yes	3	Low	Codominant trunks @ 2'; lost central leader; big shrub.
114	Monterey pine	17	Yes	2	Low	Poor form & structure; lacks vigor.
115	Monterey cypress	10,6	Yes	2	Low	Codominant trunks @ base; low laterals sweep upright; no vigor; thin canopy; very chlorotic.
116	Monterey cypress	9,7,6,4	Yes	3	Low	Multiple attachments @ base.
117	Monterey cypress	7	No	4	Moderate	Very narrow crown; crowded.
118	Monterey cypress	6,4,3	No	3	Low	Multiple attachments @ base.
119	Monterey cypress	6	No	3	Low	Very narrow crown; crowded.

Tree Assessment

Glenview Terrace
San Bruno CA
June 2019



TREE No.	SPECIES	TRUNK DIAMETER (in.)	HERITAGE TREE?	CONDITION (0=dead) (5=excell.)	SUITABILITY for PRESERVATION	COMMENTS
120	Monterey cypress	6	No	4	Moderate	Crowded; otherwise good.
121	Monterey cypress	25	Yes	4	Moderate	Typical form & structure; lacks vigor; lost central leader @ top.
122	Monterey cypress	9	No	5	High	Good young tree.
123	Monterey cypress	10,5	Yes	3	Low	Leans E.; small crown with few laterals.
124	Italian stone pine	11,10	Yes	3	Low	Codominant trunks @ 4'; rounded form.
125	Monterey pine	14	Yes	4	Moderate	Typical form & structure; lost central leader; good vigor.
126	Monterey cypress	13	Yes	3	Low	Leans SE. with open & rangy crown; branch failures.
127	Monterey pine	6	No	2	Low	Okay form; very thin canopy.
128	Italian stone pine	14,12	Yes	3	Moderate	Codominant trunks @ base & 6'; rounded form.
129	Monterey pine	19	Yes	2	Low	Okay form; very thin canopy.
130	Monterey pine	6	No	1	Low	Poor.
131	Coast live oak	18,16,9,8,7,6,6	Yes	3	Moderate	Multiple attachments @ base; one-sided to S.; low rounded shrub.
132	Toyon	9,4	Yes	2	Low	Codominant trunks @ base; 9" stem largely dead.
133	Coast live oak	7,5	Yes	2	Low	Sharp lean S.; base outside of dripline.
134	Coast live oak	11	Yes	3	Moderate	Codominant trunks @ 5'; high crown.
135	Coast live oak	10,5,3	Yes	3	Low	Multiple attachments @ 2'; one-sided to W.
136	Deodar cedar	8	No	2	Low	Poor; one-sided to S.; no vigor.
137	Coast live oak	10,8	Yes	3	Moderate	Codominant trunks @ 3' & 5'; high crown.
138	Coast live oak	11	Yes	3	Moderate	Multiple attachments @ 6'; high crown.
139	Toyon	7,6	Yes	3	Low	Codominant trunks @ 1'; high crown; crowded.
140	Coast live oak	12,9	Yes	4	Moderate	Codominant trunks @ 2'; multiple attachments @ 5'; high crown.

Tree Assessment

Glenview Terrace
San Bruno CA
June 2019



TREE No.	SPECIES	TRUNK DIAMETER (in.)	HERITAGE TREE?	CONDITION (0=dead) (5=excell.)	SUITABILITY for PRESERVATION	COMMENTS
141	Toyon	6	No	2	Low	Crowded; high crown.
142	Coast live oak	9	Yes	3	Moderate	Partly corrected lean E.; emerges thru #143.
143	Toyon	6,4,4	No	3	Low	Typical form & structure; high crown.
144	Coast live oak	6	Yes	3	Moderate	Partly corrected lean E.; crowded by #145.
145	Coast live oak	10,6	Yes	2	Low	Codominant trunks @ base; multiple attachments @ 5'; poor form & structure.
146	Coast live oak	9,6	Yes	3	Low	Codominant trunks @ 2'; twist around one another; high crown.
147	Coast live oak	6,5	Yes	3	Low	Crowded by #146; codominant trunks @ 3'; high crown.
148	Deodar cedar	11,10,6	Yes	3	Moderate	Multiple attachments @ base; upright.
149	Coast live oak	8,7	Yes	3	Low	Sweeps upright from partial failure; codominant trunks @ 4'; high crown.
150	Deodar cedar	10,8,6	Yes	3	Low	Codominant trunks @ base & 3'; vertical; lacks vigor.
151	Monterey pine	7	No	5	High	Good young tree.
152	Scots pine	6	No	1	Low	Just poor; all but dead.
153	Coast live oak	8	Yes	2	Low	Suppressed.
154	Coast live oak	9	Yes	2	Low	Suppressed; crook @ 6'.
155	Coast live oak	7	Yes	2	Low	Suppressed; leans SE.
156	Monterey pine	19	No	0	--	Dead.
157	Coast live oak	27	Yes	3	Low	Leans S.; multiple attachments @ 8' with poor attachments.
158	Toyon	11,9,5,5	Yes	3	Low	Multiple attachments @ base; sprawling shrub.
159	Toyon	6,5,4,4,4	Yes	3	Low	Multiple attachments @ base; high crown.
160	Toyon	9,8,8,6,6,5,5	Yes	3	Low	Multiple attachments @ base; high crown.

Tree Assessment

Glenview Terrace
San Bruno CA
June 2019



TREE No.	SPECIES	TRUNK DIAMETER (in.)	HERITAGE TREE?	CONDITION (0=dead) (5=excell.)	SUITABILITY for PRESERVATION	COMMENTS
161	Coast live oak	24,17	Yes	3	Moderate	Codominant trunks @ 4' with included bark; one-sided to E.

Tree Assessment Plan

Glenview Terrace
San Bruno, CA

Prepared for:
Raney Planning & Management, Inc.
Sacramento, CA

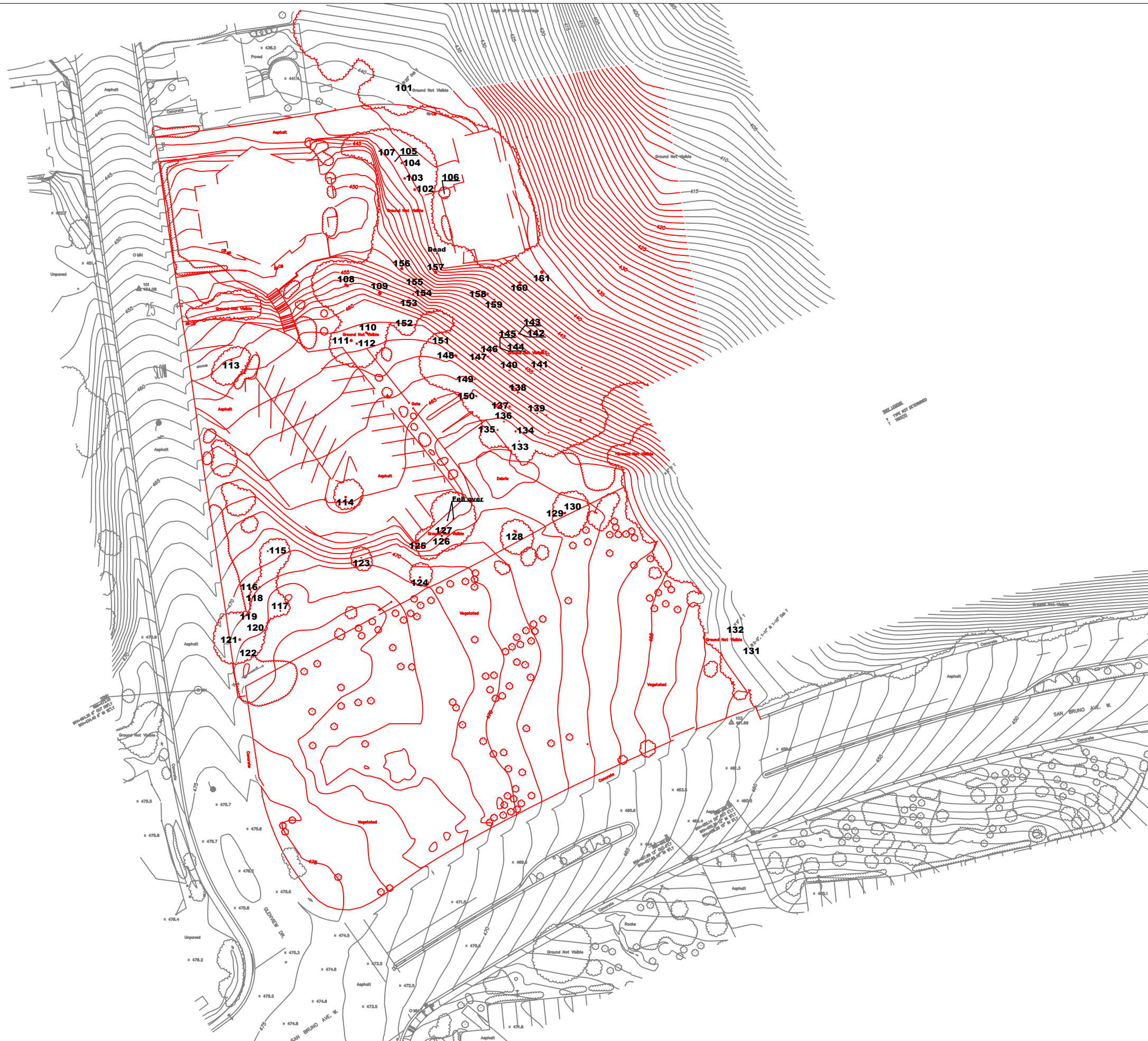
June 2019



No Scale

Notes:
Base map provided by:
BKF
Redwood City, CA

Numbered tree locations with no survey point were
approximately located in the field.



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Tree Assessment Plan

Glenview Terrace
San Bruno, CA

Prepared for:
Raney Planning & Management, Inc.
Sacramento, CA

June 2019



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