BIOLOGICAL ASSESSMENT

LOS PINOS APARTMENTS
3496 SANTA ROSA AVENUE
SANTA ROSA, CA

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PROVIDED AT REAR OF REPORT

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1 SUMMARY

This Biological Assessment presents the findings of surveys and habitat assessments for special status species and sensitive natural communities for the site located at 3496 Santa Rosa Avenue in Santa Rosa, CA (referred to as the "site") (Figure 1). The Assessor Parcel Number is 134-132-015. The site totals 2.49 acres in size.

Habitat types at the site consist of non-native annual grassland and seasonal wetland. The front portion of the site has been disturbed from past land use activities and the back field has a history of mowing. There are some trees on the site but would not be considered a separate habitat type.

Special-status plant species surveys and plant inventories were performed by Darren Wiemeyer on April 4, May 14, June 7 and June 27, 2019. Special-status plant species surveys were performed in accordance with state and federal plant survey protocols (CDFG 2000; USFWS 1996a; USFWS 1996b). The only special-status plant species observed during the four surveys in 2019 was Lobb's aquatic buttercup (*Ranunculus lobbii*), which is a CNPS List 4.2 plant. It is recommended that a second season of special-status plant species be conducted at the site, primarily for the three federally listed vernal pool plant species.

Special-status animal species searches, habitat assessments and wildlife inventories were performed by Darren Wiemeyer on January 14, April 4, May 14, June 7 and June 27, 2019. In addition, the site was assessed for habitat suitability for California tiger salamander in accordance with the Interim Guidance on Conducting Site Assessments and Field Surveys for Determining Presence or A Negative Finding of the California Tiger Salamander (USFWS 2003). No special-status animal species were observed, but the site provides suitable habitat for western pond turtle, native nesting birds and roosting bats. In addition, the site provides suitable aestivation habitat for California tiger salamander.

Darren Wiemeyer performed a wetland delineation at the site on June 27 and July 1, 2019. In addition, a site visit to observe active hydrology was conducted on January 14, 2019. A total of 0.30-acres of seasonal wetlands were delineated at the site. The United States Army Corps of Engineers (USACE) will confirm the extent of seasonal wetlands at the site. The 0.30-acres of seasonal wetland habitat would be considered suitable habitat for three federally endangered plant species that are known to occur in vernal pool habitat on the Santa Rosa Plain (USFWS 2007). The seasonal wetlands are subject to Section 404 of the Clean Water Act and Section 401 of the Clean Water Act and regulated by the North Coast Regional Water Quality Control Board (NCRWQCB).

The site is within the potential range of the California tiger salamander (*Ambystoma californiense*) (CTS) as mapped by the United States Fish and Wildlife Service (USFWS) according to the Santa Rosa Plain Conservation Strategy (SRPCS) (SRPCST, 2005). The site is within listed critical habitat for California tiger salamander (Federal Register, 2011). The site is designated as "Potential for Presence of CTS and Listed Plants" according to Figure 3 of the SRPCS (SRPCST, 2005).

In addition, the site is designated as "May adversely affect listed plants and/or CTS", according to Enclosure 1 of the Programmatic Biological Opinion for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California, dated November 9, 2007 (USFWS, 2007). According to these two documents, mitigation for potential impacts to suitable California tiger salamander habitat will be required.

The Los Pinos Apartments proposes to develop a 50-unit attached housing project at the site. The project will require the demolition of all structures on the site and several trees are proposed to be removed to allow development of the site. Development plans are included in the Figures section of this report.

A discussion of potential impacts to biological resources is included in Section 8 of this report. A detailed identification and description of recommended mitigation measures to reduce potential impacts to a less than significant level is included in Section 9 of this report.

2 SITE DESCRIPTION

The site is located at 3496 Santa Rosa Avenue in Santa Rosa, CA (referred to as the "site") (Figure 1). The Assessor Parcel Number is 134-132-015. The site totals 2.49 acres in size. The site has an existing single-family home that is not inhabitable. In addition, there is a small well house and a small agricultural shed.

The site has a history of mowing and the majority of the front portion of the site has been degraded from past land use activities. The front portion of the site consists of a paved entrance driveway and a mix of old pavement and compacted gravel, which would be considered hardscape (Figure 4). Past land uses has resulted in a dominance of non-native plant species and disturbed (ruderal) areas. Photographs of the site are included in the Figures section at the end of the report.

2.1 TOPOGRAPHY

The site is flat with elevations ranging from 103 to 104 feet above sea level (Figure 2).

2.2 SURROUNDING LANDS

Surrounding lands consist of undeveloped agricultural land to the north, the Bellevue Flood Control Channel and undeveloped agricultural land to the east, a self storage facility to the south and Santa Rosa Avenue and several commercial properties to the west.

2.3 HYDROLOGY

Surface water runoff from the site appears to generally flow south into a long seasonal wetland swale located along the southern site boundary. It appears that development of the self storage facility to the south has blocked the natural flow of surface water runoff. Surface water ponds in this seasonal wetland swale and during mid-winter it appears to flow west along the southern site boundary into an existing storm drain located at the southwest corner of the site.

2.4 SOIL TYPES

The soil types mapped at the site consist of Wright loam, shallow, wet, 0 to 2% slopes (WoA) and Clear Lake clay, sandy substratum, drained, 0 to 2 percent slopes (CeA). The Wright series consists of deep, somewhat poorly drained soils formed in alluvium from mixed rock sources. The Clear Lake series consists of clays that formed under poorly drained conditions. These soils are underlain by alluvium from basic and sedimentary rock (Miller, 1972) (Figure 3).

2.5 HABITATS

Habitat types at the site consist of non-native annual grassland and seasonal wetland. The front portion of the site has been disturbed from past land use activities and the back field has a history of mowing. There are some trees on the site but would not be considered a separate habitat type.

3 PROJECT DESCRIPTION

The Los Pinos Apartments proposed to develop a 50-unit attached housing project with 113 parking spaces, two trash enclosures and a children's play structure. The project will require the demolition of all structures on the site. Several trees are proposed to be removed to allow development of the site, but several trees will be preserved. Two underground storm drains are proposed to connect to existing Sonoma County Water Agency storm drain systems at the southwest and south east corners of the site. The project proposed to import approximately 4,630 cubic yards of soil to raise the elevation of the site above the projected 100 year floodplain elevation. Development plans are included in the Figures section of this report.

4 REGULATORY CONTEXT

4.1 UNITED STATES FISH AND WILDLIFE SERVICE

The United States Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (ESA). Listed threatened and endangered species are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via ESA Section 7 consultation. Pursuant to the requirements of ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the study area and determine whether the proposed federal action will jeopardize the continued existence of the species.

Under ESA, habitat loss is considered to be an adverse effect to a species. In addition, the action agency is required to determine whether its action is likely to jeopardize the continued existence of any species that is proposed for listing under ESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species. The USFWS also administers the federal Migratory Bird Treaty Act of 1918. Under this legislation, it is unlawful to destroy active nests, eggs, and young.

4.2 UNITED STATES ARMY CORPS OF ENGINEERS

The United States Army Corps of Engineers (USACE) administers the federal Clean Water Act (CWA). Section 404 of the CWA requires approval prior to discharging dredged or fill material into the waters of the United States. Waters of the United States includes essentially all surface waters such as all navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, and all impoundments of these waters. "Wetlands" are areas characterized by growth of wetland vegetation where the soil is saturated during a portion of the growing season or the surface is flooded during some part of most years. Wetlands generally include seasonally inundated wetlands, swamps, marshes, bogs and similar areas.

4.3 CALIFORNIA DEPARTMENT OF FISH AND GAME

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA). It is state policy to conserve, protect, restore and enhance any endangered or threatened species and its habitat. The CDFW has jurisdiction over species that are formally listed as threatened or endangered under the CESA. The CESA provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered in the state. In addition to CESA, the California Native Plant Protection Act (NPPA) provides protection to endangered and rare plant species. The CDFW also maintains a list of species of special concern to be considered during CEQA review.

Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether any state-listed species may be present in the project area and determine whether the proposed project will have a potentially significant impact upon such species. If significant impacts to state listed species are identified, the state lead agency must adopt reasonable and prudent alternatives as specified by CDFW to prevent or mitigate for impacts. CDFW can authorize take of a state-listed species if an incidental take permit is issued by the Secretary of the Interior or Commerce in compliance with the federal ESA, or if the director of CDFW issues a permit under Section 2080 in those cases where it is demonstrated that the impacts are minimized and mitigated.

CDFW also administers the California Fish and Wildlife Code. California Fish and Wildlife Code Section 3503.5 makes it unlawful to take, possess or destroy birds in the Falconiformes (birds of prey, vultures, eagles, falcons) and Strigiformes (owls) families, which can include nest disturbance from construction and other activities.

4.4 STATE WATER RESOURCES CONTROL BOARD

The State Water Resources Control Board (SWRCB) administers the state CWA. Under Section 401 of the CWA, projects that apply for a USACE permit for discharge of dredge or fill material, and projects that qualify for a Nationwide Permit, must obtain water quality certification from the RWQCB that the project will uphold state water quality standards. The SWRCB also administers the National Pollutant Discharge Elimination System (NPDES) which includes the General Permit for Storm Water Discharges from Construction Activities.

4.5 CALIFORNIA NATIVE PLANT SOCIETY

The California Native Plant Society (CNPS) is a non-profit group dedicated to preserving the state's native flora. It has developed lists of plants of special concern in California (Skinner and Pavlik 1994). In the spring of 2011, CNPS officially changed the name "CNPS List" to "California Rare Plant Rank" (CRPR). The definitions of the ranks and the ranking system have not changed, and the ranks are still used to categorize the same degrees of concern, which are described as follows:

CRPR 1A: The plants with a California Rare Plant Rank of 1A are presumed extinct because they have not been seen or collected in the wild in California for many years. This rank includes plants that are both presumed extinct as well as those plants which are presumed extirpated in California. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California, but may still occur elsewhere in its range. All of the plants constituting California Rare Plant Rank 1A meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to the California Environmental Quality Act (CEQA).

CRPR 1B: Plants with a California Rare Plant Rank of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. California Rare Plant Rank 1B plants constitute the majority of taxa in the CNPS *Inventory*, with more than 1,000 plants assigned to this category of rarity. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR 2: Except for being common beyond the boundaries of California, plants with a California Rare Plant Rank of 2 would have been ranked 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the Endangered Species Act. Until 1979, a similar policy was followed in California. However, after the passage of the Native Plant Protection Act in 1979, plants were considered for protection without regard to their distribution outside the state. With California Rare Plant Rank 2, we recognize the importance of protecting the geographic range of widespread species. In this way we protect the diversity of our own state's flora and help maintain evolutionary processes and genetic diversity within species. All of the plants constituting California Rare Plant Rank 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR 3: The plants that comprise California Rare Plant Rank 3 are united by one common theme - we lack the necessary information to assign them to one of the other ranks or to reject them. Nearly all of the plants constituting California Rare Plant Rank 3 are taxonomically problematic. For each California Rare Plant Rank 3 plant we have provided the known information and indicated in the "Notes" section of the CNPS *Inventory* record where assistance is needed. Data regarding distribution, endangerment, ecology, and taxonomic validity are welcomed and can be submitted by emailing the Rare Plant Botanist at asims cnps.org or (916) 324-3816. Some of the plants constituting California Rare Plant Rank 3 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. We strongly recommend that California Rare Plant Rank 3 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

CRPR 4: The plants in this category are of limited distribution or infrequent throughout a broader area in California. While we cannot call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Should the degree of endangerment or rarity of a California Rare Plant Rank 4 plant change, we will transfer it to a more appropriate rank. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and we strongly recommend that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

5 LITERATURE REVIEW

The CDFW California Natural Diversity Data Base (CNDDB, March 2019) was queried for a list of all plant and animal species reported from the *Santa Rosa, Mark West Springs, Calistoga, Sebastopol, Two Rock, Healdsburg, Kenwood, Cotati, and Glen Ellen* USGS 7.5-minute quadrangles (nine quad search). The Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS, March 2019) was queried for a list of all plant species reported from the *Santa Rosa, Mark West Springs, Calistoga, Sebastopol, Two Rock, Healdsburg, Kenwood, Cotati, and Glen Ellen* USGS 7.5-minute quadrangles. Standard references used for the biology and taxonomy of plants included Hickman, ed., 1993 and Best et al, 1996.

The following table (Table 1) is a list of special-status plant species that have the potential to occur at the site, based on the general habitat type(s) that each species is known to occur in and not based on species known proximity to the site or an evaluation of habitat quality. A full list of special-status plant species compiled is provided in Appendix A.

Table 1. Special-Status Plant Species With The Potential To Occur In The Study Area.

Scientific Name	Common Name	Rare Plant Rank	State List	Federal List	Habitat
Allium peninsulare var. franciscanum	Franciscan onion	1B.2	None	None	Cismontane woodland, Valley and foothill grassland
Amsinckia lunaris	bent-flowered fiddleneck	1B.2	None	None	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland
Astragalus breweri	Brewer's milk-vetch	4.2	None	None	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland (open, often gravelly)
Astragalus claranus	Clara Hunt's milk-vetch	1B.1	CT	FE	Chaparral (openings), Cismontane woodland, Valley and foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	1B.2	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Blennosperma bakeri	Sonoma sunshine	1B.1	CE	FE	Valley and foothill grassland (mesic), Vernal pools
Brodiaea leptandra	narrow-anthered brodiaea	1B.2	None	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland
Calamagrostis ophitidis	serpentine reed grass	4.3	None	None	Chaparral (open, often north-facing slopes), Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland
Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	4.2	None	None	Chaparral, Lower montane coniferous forest, Valley and foothill grassland
Castilleja ambigua var. ambigua	johnny-nip	4.2	None	None	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools margins
Centromadia parryi ssp. parryi	pappose tarplant	1B.2	None	None	Chaparral, Coastal prairie, Meadows and seeps, Marshes and swamps (coastal salt), Valley and foothill grassland (vernally mesic)
Clarkia imbricata	Vine Hill clarkia	1B.1	CE	FE	Chaparral, Valley and foothill grassland
Downingia pusilla	dwarf downingia	2B.2	None	None	Valley and foothill grassland (mesic), Vernal pools
Fritillaria liliacea	fragrant fritillary	1B.2	None	None	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland
Gilia capitata ssp. tomentosa	woolly-headed gilia	1B.1	None	None	Coastal bluff scrub, Valley and foothill grassland
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	1B.2	None	None	Valley and foothill grassland
Hesperevax caulescens	hogwallow starfish	4.2	None	None	Valley and foothill grassland (mesic, clay), Vernal pools (shallow)
Horkelia tenuiloba	thin-lobed horkelia	1B.2	None	None	Broadleafed upland forest, Chaparral, Valley and foothill grassland
Hosackia gracilis	harlequin lotus	4.2	None	None	Broadleafed upland forest, Coastal bluff scrub, Closed-cone coniferous forest, Cismontane woodland, Coastal prairie, Coastal scrub, Meadows and seeps, Marshes and swamps, North Coast coniferous forest, Valley and foothill grassland
Lasthenia conjugens	Contra Costa goldfields	1B.1	None	FE	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools
Layia septentrionalis	Colusa layia	1B.2	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland

Scientific Name	Common Name	Rare Plant Rank	State List	Federal List	Habitat
Leptosiphon acicularis	bristly leptosiphon	4.2	None	None	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Lessingia hololeuca	woolly-headed lessingia	3	None	None	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland
Limnanthes vinculans	Sebastopol meadowfoam	1B.1	CE	FE	Meadows and seeps, Valley and foothill grassland, Vernal pools
Micropus amphibolus	Mt. Diablo cottonweed	3.2	None	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland
Microseris paludosa	marsh microseris	1B.2	None	None	Closed-cone coniferous forest, Cismontane woodland, Coastal scrub, Valley and foothill grassland
Navarretia cotulifolia	cotula navarretia	4.2	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Navarretia heterandra	Tehama navarretia	4.3	None	None	Valley and foothill grassland (mesic), Vernal pools
Navarretia leucocephala ssp. bakeri	Baker's navarretia	1B.1	None	None	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	4.2	None	None	Broadleafed upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools
Plagiobothrys strictus	Calistoga popcornflower	1B.1	CT	FE	Meadows and seeps, Valley and foothill grassland, Vernal pools
Poa napensis	Napa blue grass	1B.1	CE	FE	Meadows and seeps, Valley and foothill grassland
Puccinellia simplex	California alkali grass	1B.2	None	None	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools
Ranunculus lobbii	Lobb's aquatic buttercup	4.2	None	None	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools
Trifolium amoenum	two-fork clover	1B.1	None	FE	Coastal bluff scrub, Valley and foothill grassland (sometimes serpentinite)
Trifolium hydrophilum	saline clover	1B.2	None	None	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools

The following table (Table 2) is a list of special-status animal species that have the potential to occur in habitats within or adjacent to the study based on the general habitat type(s) that each species is known to occur in and not based on species known proximity to the site or an evaluation of habitat quality. A full list of special-animal species is provided in Appendix B.

Table 2. Special-Status Animal Species With The Potential To Occur In Or Adjacent To The Study Area.

Scientific Name	Common Name	Federal List	State List	Dept. Fish and Wildlife Rank	Habitat
Ambystoma californiense	California tiger salamander	Endangered	Threatened	Watch List	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland
Ammodramus savannarum	grasshopper sparrow	None	None	Special Concern	Valley & foothill grassland
Antrozous pallidus	pallid bat	None	None	Special Concern	Chaparral | Coastal scrub | Desert wash | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Riparian woodland | Sonoran desert scrub | Upper montane coniferous forest | Valley & foothill grassland
Aquila chrysaetos	golden eagle	None	None	Fully Protected/Watch List	Broadleaved upland forest | Cismontane woodland | Coastal prairie | Great Basin grassland | Great Basin scrub | Lower montane coniferous forest | Pinon & juniper woodlands | Upper montane coniferous forest | Valley & foothill grassland
Athene cunicularia	burrowing owl	None	None	Special Concern	Coastal prairie | Coastal scrub | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Sonoran desert scrub | Valley & foothill grassland
Buteo regalis	ferruginous hawk	None	None	Watch List	Great Basin grassland | Great Basin scrub | Pinon & juniper woodlands | Valley & foothill grassland
Corynorhinus townsendii	Townsend's big-eared bat	None	None	Special Concern	Broadleaved upland forest | Chaparral | Chenopod scrub | Great Basin grassland | Great Basin scrub | Joshua tree woodland | Lower montane coniferous forest | Meadow & seep | Mojavean desert scrub | Riparian forest | Riparian woodland | Sonoran desert scrub | Sonoran thorn woodland | Upper montane coniferous forest | Valley & foothill grassland
Elanus leucurus	white-tailed kite	None	None	Fully Protected	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland
Emys marmorata	western pond turtle	None	None	Special Concern	Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland
Lasiurus blossevillii	western red bat	None	None	Special Concern	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland
Lasiurus cinereus	hoary bat	None	None	None	Broadleaved upland forest | Cismontane woodland | Lower montane coniferous forest | North coast coniferous forest
Myotis thysanodes	fringed myotis	None	None	None	Wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer.
Myotis volans	long-legged myotis	None	None	None	Upper montane coniferous forest
Myotis yumanensis	Yuma myotis	None	None	None	Lower montane coniferous forest | Riparian forest | Riparian woodland | Upper montane coniferous forest

Scientific Name	Common Name	Federal List	State List	Dept. Fish and Wildlife Rank	Habitat
Rana draytonii	California red-legged frog	Threatened	None	Special Concern	Aquatic | Artificial flowing waters | Artificial standing waters | Freshwater marsh | Marsh & swamp | Riparian forest | Riparian scrub | Riparian woodland | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland
Linderiella occidentalis	California linderiella	None	None	None	Vernal pool
Taxidea taxus	American badger	None	None	Special Concern	Many habitat types listed in CNDDB – only including region habitat types. Broadleaved upland forest | Chaparral | Cismontane woodland | Closed-cone coniferous forest | Freshwater marsh | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | North coast coniferous forest | Riparian forest | Riparian scrub | Riparian woodland | Ultramafic | Upper montane coniferous forest | Valley & foothill grassland

6 STUDY METHODS

6.1 VEGETATION AND SPECIAL-STATUS PLANT SPECIES SURVEYS

On April 4, May 14, June 7 and June 27, 2019, Darren Wiemeyer conducted site visits to map habitats, to perform special-status species plant surveys, to prepare a plant inventory and to assess habitat suitability for special-status plant species that have the potential to utilize habitats a the site. Special-status plant species surveys were performed in accordance with state and federal plant survey protocols (CDFG 2000; USFWS 1996a; USFWS 1996b).

The surveys were conducted at the time of year when rare or endangered species are both "evident" and identifiable, i.e. they were scheduled (1) to coincide with known flowering periods, and/or (2) during periods of phenological development that are necessary to identify special status plant species. A meandering pattern was walked through each habitat to ensure that all areas were viewed.

Federally listed plant species reference site surveys were performed at several locations in the Santa Rosa Plain in 2019. Table 3 lists the dates, reference sites and phenology.

6.2 WILDLIFE AND SPECIAL-STATUS ANIMAL SPECIES ASSESSMENTS AND SURVEYS

On January 14, April 4, May 14, June 7 and June 27, 2019, Darren Wiemeyer conducted site visits to perform a wildlife inventory and assess habitat suitability for special-status animal species that have the potential to utilize habitats at the site. Searches were conducted to determine if habitats supported special-status animal species. In addition, the site visits and habitat assessments were conducted for a California Tiger Salamander Site Assessment in accordance with the Interim Guidance on Conducting Site Assessments and Field Surveys for Determining Presence or A Negative Finding of the California Tiger Salamander (USFWS 2003).

Protocol level surveys for potentially occurring special-status animal species were not conducted for all species. The determination of presence for animal species possibly occurring at the site was based on habitat assessments, literature review and queries through CNDDB.

The site was searched for the presence of large burrows which could be used by burrowing owl (*Athena cunicularia*) or American badger (*Taxidea taxus*). The trees and shrubs at the site were generally searched for actively nesting birds and the trees and structures at the site were evaluated for habitat suitability for roosting bats.

6.3 WETLAND DELINEATION

Darren Wiemeyer performed a wetland delineation at the site on June 27 and July 1, 2019. In addition, a site visit to observe active hydrology was conducted on January 14, 2019. A total of 0.30-acres of seasonal wetlands were delineated at the site. The United States Army Corps of Engineers (USACE) will confirm the extent of seasonal wetlands at the site.

7 RESULTS

7.1 PLANT COMMUNITIES & HABITATS

Habitat types at the site consist of non-native annual grassland and seasonal wetland. The front portion of the site has been disturbed from past land use activities and the back field has a history of mowing. There are some trees on the site but would not be considered a separate habitat type. The tree species that occur on site include silver wattle (*Acacia dealbata*), valley oak (Quer*cus lobata*), coast live oak (*Quercus agrifolia*) and Fremont cottonwood (*Populus fremontii*).

7.1.1 Non-Native Annual Grassland

Non-native annual grassland is the dominant plant community at the site (Figure 4). This vegetation type is dominated by non-native annual grasses and weedy annual and perennial forbs that have replaced native grasslands as a result of human disturbance, past land uses and agricultural practices.

Dominant plant species in the non-native annual grassland include Italian ryegrass (*Festuca perennis*), wild oat (*Avena fatua*), rip-gut brome (*Bromus diandrus*), spring vetch (*Vicia sativa*), hairy cat's ear (*Hypochoeris radicata*), red-stemmed filaree (*Erodium cicutarium*) and chicory

(*Cichorium intybus*). Some areas exhibited California oatgrass (*Danthonia californica*), which is a native grass, but it was not dominant at the site.

7.1.2 Seasonal Wetland

A total of 0.30-acres of seasonal wetlands were delineated at the site. They occur as four separate seasonal wetlands (Figure 4). In general, the two small wetlands located on the western portion of the site, consist of non-native species and have been degraded from past land uses. The large wetland along the southern site boundary and the small wetland to its north contain several native wetland and vernal pool species and appear to be relatively undisturbed.

Dominant plant species in the seasonal wetlands include Italian ryegrass, Mediterranean barley (*Hordeum marinum* ssp. *gussoneum*), semaphore grass (*Pleuropogon californicus*), curly doc (*Rumex crispus*), pennyroyal (*Mentha pulegium*) and button celery (*Eryngium aristulatum*). Additional native vernal pool species observed in the large wetland along the southern site boundary include brown-headed rush (*Juncus phaeocephalus*), smooth goldfields (*Lasthenia glaberrima*) and Lobb's aquatic buttercup (*Ranunculus lobbii*), which is a CNPS List 4.2 plant.

All of the seasonal wetlands are shallow with short hydro-periods. The deepest portion of the largest wetland along the southern site boundary was observed to be ponded to a depth of 10 inches. The seasonal wetlands at the site would be considered suitable habitat for three federally endangered plant species that are known to occur in vernal pool habitat on the Santa Rosa Plain (USFWS 2007).

7.2 SPECIAL-STATUS PLANTS

No only special-status plant species observed during protocol-level special-status plant species surveys was Lobb's aquatic buttercup (*Ranunculus lobbii*), which is a CNPS List 4.2 plant. CNPS List 4 special-status plant species are typically not considered "rare" and would not require specific mitigation, only identification of impacts to List 4 species. The loss of this species at the site would not be considered a significant loss of this species numbers or habitat on a regional perspective. Habitat mitigation for the loss of the seasonal wetland habitat at the site through the purchase of seasonal wetland habitat credits at an approved wetland mitigation bank would replace the loss of seasonal wetland habitat for this special-status plant species.

Past land uses and agricultural activities has greatly diminished the likelihood that additional special-status plant species would occur at the site. Nevertheless, the seasonal wetlands would be considered suitable habitat for three federally endangered plant species that are known to occur in vernal pool habitat on the Santa Rosa Plain (USFWS 2007). The three federally endangered plant species include Burke's goldfields (*Lasthenia burkei*), Sonoma sunshine (*Blennosperma bakeri*) and Sebastopol meadowfoam (*Limnanthes vinculans*).

Federally listed plant species reference site surveys were performed at several locations in the Santa Rosa Plain in 2019. Table 3 documents the reference site locations, dates and phenological development of federally listed plant species.

Table 3. Federally Listed Plant Species Reference Site Survey Documentation.

SPECIES	SURVEY DATE	REFERENCE SITE	PHENOLOGY – Percent: vegetative (v); blooming (b); seed set (ss)
Blennosperma bakeri	March 14, 2019	Alton Preserve, Santa Rosa	v: 98%; b: 2%; ss: 0%
	April 4, 2019	Alton Preserve, Santa Rosa	v: 50%; b: 40%; ss: 0%
	April 16, 2019	Alton Preserve, Santa Rosa	v: 10%; b: 60%; ss: 30%
	May 13, 2019	Starr Road, Windsor	v: 0%; b: 20%; ss: 80%
	May 14, 2019	Alton Preserve, Santa Rosa	v: 0%; b: 5%; ss: 95%
	June 5, 2019	Alton Preserve, Santa Rosa	v: 0%; b: 0%; ss: 100%
Lasthenia bakeri	March 14, 2019	Alton Preserve, Santa Rosa	v: 0%; b: 0%; ss: 0%
	April 4, 2019	Piner and Bay Meadow, Santa Rosa	v: 100%; b: 0%; ss: 0%
	April 4, 2019	Alton Preserve, Santa Rosa	v: 100%; b: 0%; ss: 0%
	April 16, 2019	Alton Preserve, Santa Rosa	v: 30%; b: 70%; ss: 0%
	May 14, 2019	Alton Preserve, Santa Rosa	v: 10%; b: 80%; ss: 10%
	May 14, 2019	Piner and Bay Meadow, Santa Rosa	v: 0%; b: 80%; ss: 20%
	June 5, 2019	Alton Preserve, Santa Rosa	v: 0%; b: 5%; ss: 95%
Limnanthes vinculans	March 14, 2019	Alton Preserve, Santa Rosa	v: 100%; b: 0%; ss: 0%
	April 4, 2019	Alton Preserve, Santa Rosa	v: 100%; b: 0%; ss: 0%
	April 16, 2019	Alton Preserve, Santa Rosa	v: 10%; b: 60%; ss: 30%
	May 14, 2019	Alton Preserve, Santa Rosa	v: 0%; b: 30%; ss: 70%
	June 5, 2019	Alton Preserve, Santa Rosa	v: 0%; b: 5%; ss: 95%

7.3 WILDLIFE

The site provides suitable, yet limited, habitat for a variety of wildlife species. The grassland habitat provides marginally adequate habitat for foraging, cover and rearing young for small to medium sized mammals and for reptiles. The seasonal wetlands provide a seasonal water source for wading birds and pacific chorus frog larvae was observed in the largest seasonal wetland. No large burrows were observed but there were several areas with small fossorial mammal burrows, primarily pocket gopher burrows.

No active bird nests were observed, but the site provides suitable nesting habitat for ground and tree nesting birds and suitable foraging habitat for several bird species. It is somewhat likely that native birds nest at the site. Tree removal and site development has the potential to disturb active nesting birds.

There was no indication that bats were utilizing any of the structures at the site, but the large Fremont cottonwood trees provide potentially suitable roosting bat habitat. Removal of the Fremont cottonwood trees has the potential to disturb active roosting bat species. The site would not be considered a wildlife corridor, but the Bellevue Flood Control Channel to the east of the site most likely functions as a wildlife corridor to some extent.

Wildlife species noted at the site during field surveys include song sparrow, brown towhee, black phoebe, common raven, American goldfinch, house finch, western fence lizard, pocket gopher, mule deer and pacific chorus frog.

7.4 SPECIAL-STATUS ANIMAL SPECIES

7.4.1 Birds

7.4.1.1 Burrowing Owl

Conservation Status: CDFW - Species of Special Concern

Burrowing owl (*Athene cunicularia*) occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Burrowing owl is a subterranean nester which is dependent upon burrowing mammals, most notably, the California ground squirrel. The site provides very limited, but suitable habitat for this species. No medium or large burrows were observed at the site, which significantly limits the suitability of the site for nesting. Surrounding developments also limits the suitability of the site for nesting and foraging habitat.

There is one CNDDB occurrence of this species approximately 3.5-miles to the southeast of the site (Figure 5). This species was not observed at the site. The proposed project will impact potentially suitable habitat for this species, but this would not be considered a significant impact as there is no indication that this species occurs at the site. Based on this evaluation, it has been determined that there will be no significant impact to this species as a result of the proposed project.

7.4.1.2 White-tailed Kite

Conservation Status: CDFW - Fully Protected

White-tailed kite (*Elanus leucurus*) is generally found in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodlands. They

typically nest in oak trees with dense tops. The non-native annual grassland provides suitable foraging habitat for this species but the few trees on the site would not be considered suitable nesting habitat as this species prefers larger oak trees for nesting. Also, no large raptor nests were observed at the site.

The nearest CNDDB occurrence of this species is approximately 1.6-miles to the northwest of the site (Figure 5). This species was not observed at the site. It is somewhat likely that this species utilizes the grassland habitat at the site for foraging habitat. Because the proposed project will not result in impacts to suitable nesting habitat, it has been determined that there will be no significant impact to this species as a result of the proposed project.

7.4.1.3 Grasshopper Sparrow

Conservation Status: CDFW - Species of Special Concern

Grasshopper sparrow (*Ammodramu savannarum*) occurs in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. It favors native grasslands with a mix of grasses, forbs and scattered shrubs.

There are no CNDDB occurrences of this species within 5-miles of the site (Figure 5). The nearest occurrence of this species is to the east on Sonoma Mountain. This species was not observed at the site. It is unlikely that species utilizes habitats at the site. The annual grassland habitat at the site provides limited nesting and foraging habitat suitability for this species, primarily because this species prefer grasslands with shrubs on hills and lower mountain slopes. Therefore, it has been determined that there will be no significant impact to this species as a result of the proposed project.

7.4.1.4 Golden Eagle

Conservation Status: CDFW - Fully Protected

Golden eagle (*Aquila chyrysaetos*) occurs primarily in rolling foothills, mountain areas, sage-juniper flats and desert environments in California. They prefer cliff-walled canyons and large trees in open areas for nesting habitat. The site provides potentially suitable, yet limited foraging habitat for this species and does not provide suitable nesting habitat for this species.

There are no CNDDB occurrences of this species within 5-miles of the site (Figure 5). This species was not observed at the site. The proposed project will result in the loss of suitable foraging habitat, but it would not be considered a significant impact to this species. Therefore, it has been determined that there will be no significant impact to this species as a result of the proposed project.

7.4.1.5 Ferruginous Hawk

Conservation Status: CDFW - Watch List

Ferruginous hawk (*Buteo regalis*) occurs in open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats and feed primarily on ground squirrels and mice. The site provides potentially suitable, yet limited foraging habitat for this species and does not provide suitable nesting habitat for this species.

There are no CNDDB occurrences of this species within 5-miles of the site (Figure 5). This species was not observed at the site. It is unlikely that species utilizes habitats at the site. The proposed project will result in the loss of potentially suitable foraging habitat for this species, but this would not be considered a significant impact. Therefore, it has been determined that there will be no significant impact to this species as a result of the proposed project.

7.4.2 Mammals

7.4.2.1 American Badger

Conservation Status: CDFW - Species of Special Concern

American badger (*Taxidea taxus*) generally occur in open pasture and grassland habitats and are most abundant in drier open stages of most shrub, forest and herbaceous habitats with friable soils on uncultivated ground. They dig their own burrows and prey primarily on burrowing rodents. The non-native annual grassland at the site provides very limited, but potentially suitable habitat for this species. However, there were no large burrows observed at the site which would greatly limit the likelihood that this species occurs at the site.

There nearest CNDDB occurrence of this species is approximately 5.5-miles to the southwest of the site (Figure 5). This species was not observed at the site. The proposed project will impact potentially suitable habitat for this species, but this would not be considered a significant impact as there is no indication that this species occurs at the site. Therefore, it has been determined that there will be no significant impact to this species as a result of the proposed project.

7.4.2.2 Special-Status Bat Species

All special-status bat species, including several bat species which do not have special status, but have potential to occur in habitats at the site, have been included in this evaluation of habitat suitability and discussion of potential impacts. All bat species have state protection during nesting and roosting seasons. The following bat species are included in this habitat assessment:

Pallid Bat (*Antrozous pallidus*) - Conservation Status: CDFW – Species of Special Concern

Townsend's Big-Eared Bat (*Corynorhinus townsendii*) - Conservation Status: State - Candidate Threatened; CDFW - Species of Special Concern

Western red bat (*Lasiurus blossevillii*) – Conservation Status: CDFW – Species of Special Concern

Hoary Bat (*Lasiurus cinereus*) – Conservation Status: None

Fringed Myotis (*Myotis thysanodes*) – Conservation Status: None

Yuma Myotis (*Myotis yumanensis*) – Conservation Status: None

Long-legged Myotis (*Myotis volans*) – Conservation Status: None

Bats are known to utilize a vast variety of habitat types for foraging and several types of structures for nesting and roosting including trees, cliffs, rock outcrops, buildings, bridges, caves and mines. The habitats at the site provides very limited foraging habitat for bats. The Fremont cottonwood trees at the site provide potentially suitable habitat for roosting as they exhibit cavities, fissures and exfoliating bark. There was no indication that bats were utilizing any of the structures at the site.

There are no CNDDB occurrences of these bat species within 5-miles of the site (Figure 5). The Fremont cottonwood trees are proposed to removed as a result of the project. Therefore, it has been determined that there is a potential significant impact to this species as a result of the proposed project.

7.4.3 Amphibians and Reptiles

7.4.3.1 Western Pond Turtle

Conservation Status: CDFW - Species of Special Concern

Western pond turtle *(Emys marmorata*) occur in reservoirs, ponds, vernal pools, brackish estuaries, sloughs, drainage ditches, and perennial streams. This species requires basking sites and suitable upland habitat adjacent to aquatic habitats for egg-laying. Basking sites are typically logs, small islands and docks. The upland areas typically used by this species include sandy banks or grassy open fields. The Bellevue Flood Control Channel to the east of the site provides potentially suitable habitat for this species.

There nearest CNDDB occurrence of this species is approximately 1.8-miles to the south of the site (Figure 5). This species was not observed at the site. There is a moderate likelihood that this species occurs in the Bellevue Flood Control Channel as this channel has suitable habitat. But it is unlikely that this species would utilize the site as upland habitat for egg-laying.

Although this species is known to stay within stream channels and its riparian corridor, there is some possibility that it can travel outside of the Bellevue Flood Control Channel and onto the site. Therefore, it has been determined that there may be a significant impact to this species as a result of the proposed project without appropriate avoidance and mitigation measures.

7.4.3.2 California Red-Legged Frog

Conservation Status: Federal – Threatened; CDFW - Species of Special Concern

California red-legged frog occur in low-gradient stream reaches, ponds, reservoirs, vernal pools, and brackish lagoons. Breeding occurs from November through April, and eggs are laid in standing or slow-moving shallow water in floating masses attached to vegetation. The larvae require 3.5 to 7 months to reach metamorphosis, which usually occurs between July and September (Jennings and Hayes 1994). Adults prefer deep (>2ft. depth), standing or slow-moving water with dense, shrubby riparian vegetation, especially Arroyo willow (*Salix lasiolepis*) or dense emergent vegetation such as bulrush (*Scirpus* spp.) and cattail (*Typha sp*.). Both adults and juveniles routinely leave the water to forage in riparian areas, and some are known to move long distances (up to 2 miles) overland during the rainy season, and can be found within streams up to 2 miles from breeding sites (USFWS 2000).

The primary constituent elements for California red-legged frogs are aquatic and upland areas where suitable breeding and non-breeding habitat is interspersed throughout the landscape and is interconnected by un-fragmented dispersal habitat. Specifically, to be considered to have the primary constituent elements an area must include two (or more) suitable breeding locations, a permanent water source, associated uplands surrounding these water bodies up to 91 meters (300 feet) from the water's edge, all within 2 kilometers (1.25 miles) of one another and connected by barrier-free dispersal habitat that is at least 91 meters (300 feet) in width.

The site is located within the potential range, but is not within any listed critical habitat areas for California red-legged frog. The nearest CNDDB occurrence of this species is approximately 1.5-miles to the northeast of the site at Taylor Mountain Regional Park (Figure 5). This species was not observed at the site.

The site does not have any suitable breeding habitat for this species. The Bellevue Flood Control Channel to the east of the site provides potential, yet limited, breeding habitat. However, this species has not been found in this flood control channel or any other aquatic habitats in the vicinity of the site on the Santa Rosa Plain. The non-native annual grassland and seasonal wetland habitat at the site provides potentially suitable upland dispersal habitat but it is highly unlikely that this species utilizes the habitats at the site. Based on this evaluation, it has been determined that there will be no impact to this species as a result of the proposed project.

7.4.3.3 California Tiger Salamander

Conservation Status: Federal – Endangered; CDFW – Threatened

The site is within the potential range of the California tiger salamander (*Ambystoma californiense*) (CTS) as mapped by the United States Fish and Wildlife Service (USFWS) according to the Santa Rosa Plain Conservation Strategy (SRPCS) (SRPCST, 2005). The site is within listed critical habitat for California tiger salamander (Federal Register, 2011). The site is designated as "Potential for Presence of CTS and Listed Plants" according to Figure 3 of the SRPCS (SRPCST, 2005).

In addition, the site is designated as "May adversely affect listed plants and/or CTS", according to Enclosure 1 of the Programmatic Biological Opinion for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California, dated November 9, 2007 (USFWS, 2007).

7.4.3.3.1 Biology

The California tiger salamander (*Ambystoma californiense*) is an amphibian in the family Ambystomatidae. It is a large, stocky, terrestrial salamander with a broad, rounded snout. Adult males are about 20 centimeters (8 inches) long, females a little less than 18 centimeters (7 inches). Coloration consists of white or pale yellow spots or bars on a black background on the back and sides. The belly varies from almost uniform white or pale yellow to a variegated pattern of white or pale yellow and black. The salamander's small eyes protrude from their heads. They have black irises. Males can be distinguished from females, especially during the breeding season, by their swollen *cloacae*, a common chamber into which the intestinal, urinary, and reproductive canals discharge. They also have more developed tail fins and, as mentioned above, larger overall size.

The species is restricted to grasslands and low (typically below 2000 feet/610 meters) foothill regions where lowland aquatic sites are available for breeding. They prefer natural ephemeral pools or ponds that mimic them (stock ponds that are allowed to go dry). Larvae require significantly more time to transform into juvenile adults than other amphibians such as the western spadefoot toad (*Scaphiopus hammondii*) and Pacific chorus frog (*Pseudacris regilla*). Compared to the western toad (*Bufo boreas*) or western spadefoot toad, California tiger salamanders are poor burrowers. They require refuges provided by ground squirrels and other burrowing mammals in which to enter a dormant state called *estivation* during the dry months.

This species is restricted to California and does not overlap with any other species of tiger salamander. California tiger salamanders are restricted to vernal pools and seasonal ponds, including many constructed stock ponds, in grassland and oak savannah plant communities, predominantly from sea level to 2,000 feet, in central California. In the Coastal region, populations are scattered from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County (up to elevations of 3,500 feet/1067 meters), and in the Central Valley and Sierra Nevada foothills from Yolo to Kern counties (up to 2,000 feet/610 meters). The Sonoma population appears to have been geographically isolated from the remainder of the California tiger salamander population by distance, mountains and major waterway barriers for more than 700,000 years.

The primary cause of the decline of California tiger salamander populations is the loss and fragmentation of habitat from human activities and the encroachment of nonnative predators. Federal, State and local laws have not prevented past and ongoing losses of habitat. All of the estimated seven genetic populations of this species have been significantly reduced because of urban and agricultural development, land conversion, and other human-caused factors.

A typical salamander breeding population in a pond can drop to less than twenty breeding adults and/or recruiting juveniles in some years, making these local populations prone to extinction. California tiger salamanders therefore require large contiguous areas of vernal pools (vernal pool complexes or comparable aquatic breeding habitat) containing multiple breeding ponds to ensure re-colonization of individual ponds. Louisiana swamp crayfish, mosquito fish, green sunfish and other introduced fishes prey on adult or larval salamanders.

7.4.3.3.2 CTS Occurrences

The nearest CNDDB occurrence of this species is approximately 0.9-miles to the southeast of the site at the Horn Mitigation Bank (Figure 5). The Horn Mitigation Bank site on Hunter Lane Extension is a wetland mitigation bank and a known CTS breeding site. There are many additional CTS occurrences on the west side of Highway 101, but are not identified or described in this report because Highway 101 is considered a significant migration barrier for the movement of CTS. This species was not observed at the site.

7.4.3.3.3 Site Evaluation

In general, the non-native annual grassland habitat provides potentially suitable upland aestivation and dispersal habitat for California tiger salamander. The site also exhibits a moderate low density of fossorial mammal burrows, primarily pocket gopher burrows. Hardscape at the site, in the form of the home, the well house, the paved entrance driveway and the mix of old pavement and compacted gravel, would not be considered suitable habitat for CTS.

The largest seasonal wetland, located along the southern site boundary, has a relatively short hydro-period and only ponds water to a depth of 10 inches, which most likely makes the seasonal wetland unsuitable as breeding habitat. Suitable CTS breeding habitat typically requires a long hydro-period and a depth of 16 inches or deeper.

The site is located close enough to the Horn Mitigation Bank for CTS to migrate to the site, but the Bellevue Flood Control Channel provides a potential barrier to movement, which makes it unlikely that CTS occur at the site. Nevertheless, the proposed project will result in the loss of approximately 2.13 acres of suitable CTS upland aestivation habitat. Therefore, it has been determined that there would be a significant impact to CTS upland aestivation habitat without appropriate mitigation measures.

7.4.4 Invertebrates

7.4.4.1 California Linderiella

Conservation Status: None

California linderiella (*Linderiella occidentalis*) is known to occur in vernal pools in unplowed grasslands with with old alluvial soils underlain by hardpan or in sandstone depressions. California linderiella require large, high quality vernal pools with clear water.

There nearest CNDDB occurrences of this species is approximately 1.8 miles to the northwest of the site (Figure 5). This species was not observed at the site. The short hydro-period and somewhat degraded nature of the seasonal wetlands at the site reduces the possibility of this species occurring at the site. The proposed project will impact seasonal wetland habitat, but these wetlands would be considered low quality for this species and would provide marginal habitat suitability for this species. Therefore, it has been determined that there will be no impact to this species as a result of the proposed project.

8 DISCUSSION OF POTENTIAL IMPACTS

8.1 SIGNIFICANCE CRITERIA

The determination of significance of impacts to biological resources involves an evaluation of the context in which the impact may occur and the intensity and extent of the impact's effect. The significance of potential impacts is assessed at a site-specific scale and in the larger regional context. The project's effect on biological resources would be considered significant if the project results in:

- Alteration of unique characteristics of the area, such as sensitive plant communities and habitats (i.e. serpentine habitats, wetlands, riparian habitats).
- Adverse impacts to special-status species
- Adverse impacts to important or vulnerable resources as determined by scientific opinion or resource agency concerns (i.e. special status habitats; e.g. wetlands).
- Interference with migratory routes.

8.2 POTENTIAL IMPACTS

The Los Pinos Apartment project at 3496 Santa Rosa Avenue in Santa Rosa, CA has the potential to significantly impact biological resources at the site. Site developments will result in the loss of 0.30-acres of seasonal wetland habitat and approximately 2.13-acres of suitable upland aestivation habitat for California tiger salamander. Site development has the potential to disturb native nesting birds and the removal of the Fremont cottonwood trees has the potential to disturb roosting bat species. Site development also has the potential to disturb western pond turtle.

9 RECOMMENDED MITIGATION MEASURES

9.1 IMPACTS AND RECOMMENDED MITIGATION

Implementation of the following recommended mitigation measures, in addition to any regulatory agency conditions, will result in a finding of less than significant impacts to biological resources as a result of site development for the Los Pinos Apartment project**.**

IMPACT 1. LOSS OF 0.30-ACRES OF SEASONAL WETLAND HABITAT AND SUITABLE FEDERALLY ENDANGERED PLANT HABITAT

Site developments will results in the loss of 0.30-acres of seasonal wetland habitat. The 0.30-acres of seasonal wetland habitat is considered suitable federally endangered plant habitat.

Mitigation Measures

Mitigation 1.1. *Obtain permit authorization from the USACE under the 404 Nationwide Permit Program for the loss of 0.30-acres of seasonal wetland habitat. Implement all agency permit conditions.*

Mitigation 1.2. *Obtain permit authorization from the SWRCB under the 401 Water Quality Certification Program for the loss of 0.30-acres of seasonal wetland habitat. Implement all agency permit conditions.*

Mitigation 1.3. *Mitigate for the loss of 0.30-acres of seasonal wetland habitat at a 1:1 ratio at an approved wetland mitigation bank.*

Mitigation 1.4. *Append the project to the USFWS Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species*

on the Santa Rosa Plain, California. Mitigate for the loss of 0.30-acres of suitable federally endangered plant habitat in accordance with the USFWS Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California.

IMPACT 2. LOSS OF 2.13-ACRES OF CALIFORNIA TIGER SALAMANDER UPLAND AESTIVATION HABITAT

Site developments will results in the loss of approximately 2.13-acres of California tiger salamander upland aestivation habitat.

Mitigation Measures

Mitigation 2.1. *Append the project to the USFWS Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California. Mitigate for the loss of 2.13-acres of suitable California tiger salamander upland aestivation habitat at a 1:1 mitigation ratio in accordance with the USFWS Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California.*

IMPACT 3. CONSTRUCTION ACTIVITIES MAY IMPACT NESTING BIRDS

It is possible that tree and ground nesting birds could initiate nesting at the site. To ensure that nesting birds are not disturbed as a result of construction activities, it is recommended that pre-construction surveys for nesting birds be performed prior to construction activities.

Mitigation Measures

Mitigation 3.1. *A qualified biologist shall perform a pre-construction survey for nesting birds within 7 days prior ground breaking at the site if construction activities will take place between February 1 and August 31. If nesting birds are found, the qualified biologist should establish suitable buffers prior to ground breaking activities. To prevent encroachment, the established buffer(s) should be clearly marked by highly visibility material. The established buffer(s) should remain in effect until the young have fledged or the nest has been abandoned as confirmed by the qualified biologist.*

IMPACT 4. TREE REMOVAL MAY IMPACT ROOSTING BATS

To ensure that actively roosting bats are not disturbed as a result of the removal of the Fremont cottonwood trees, it is recommended that specific mitigation measures be implemented to avoid impacts to bat species. These mitigation measures should only be applied to the Fremont cottonwood trees as the other trees on the site do not provide suitable roosting habitat for bat species.

Mitigation Measures

Mitigation 4.1. *The pruning or removal of living trees or snags must not occur during the maternity season between April 1 and September 1 to minimize the disturbance of young that may be present and unable to fly. The pruning or removal of living trees or snags must occur between the hours of 12 pm and sunset on days after nights when low temperatures were 50° F or warmer to minimize impacting bats that may be present in deep torpor. Sunset times shall be obtained from http://aa.usno.navy.mil/data/docs/RS_OneDay.php and temperatures for prior-work nights shall be obtained from http://www.wunderground.com/history/.*

When it is necessary to perform crown reduction on trees over 12 inches in diameter breast height or remove entire trees or branches over six inches in diameter there shall be preliminary pruning of small branches less than 2 inches in diameter performed the day before. The purpose of this is to minimize the probability that bats would choose to roost in those trees the night before the work is performed.

IMPACT 5. CONSTRUCTION ACTIVITIES MAY IMPACT WESTERN POND TURTLE

To ensure that western pond turtles are not disturbed as a result of construction activities, it is recommended that specific mitigation measures be implemented to avoid impact to this species.

Mitigation Measures

Mitigation 5.1 *A qualified biologist shall perform a pre-construction survey for western pond turtles 300 feet from the western edge of the Bellevue Flood Control Channe within 48 hours prior to ground breaking at the site. If western pond turtles are found, the qualified biologist should establish suitable buffers and/or relocation of individuals prior to initiation of construction activities.*

10 REFERENCES

Best C., J. T. Howell, W. Knight, I. Knight, and M. Wells. 1996. A Flora of Sonoma County. California Native Plant Society, Sacramento. 347 pp.

California Department of Fish and Wildlife (CDFW). 2000. Guidelines for assessing effects of proposed developments on rare and endangered plants and natural communities. CDFG, Sacramento.

California Natural Diversity Data Base (CNDDB). Quadrangle reports (March 2019) for *Santa Rosa, Mark West Springs, Calistoga, Sebastopol, Two Rock, Healdsburg, Kenwood, Cotati, and Glen Ellen* USGS 7.5-minute quadrangles.

California Native Plant Society (CNPS). March 2019. Inventory of Rare and Endangered Vascular Plants of California. California Native Plant Society Special Publication No. 1 (Sixth Edition, Electronic Version). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society, Sacramento, CA.

Ehrlich, P. R., Dobkin, D. S., Wheye D. 1988. The Birder's Handbook – A Field Guide to the Natural History of North American Birds. Simon & Schuster, Inc. New York.

Harrison, H. H. 1979. A Field Guide to Western Birds' Nests. Houghton Mifflin Company, New York.

Hickman, J. C. (Ed.). 1993. The Jepson Manual of Higher Plants of California. University of California Press, Berkeley.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Non-game Heritage Program, California Department of Fish and Game, Sacramento.

Jennings, M.R. and M.P. Hayes 1994. Amphibian and reptile species of special concern in California. Final report. Prepared for the California Department of Fish and Game, Inland Fisheries Division. 255 p.

Mayer, K. E., Laudenslayer, W. F. 1988. A Guide to Wildlife Habitats of California. State of California Resources Agency, Department of Fish and Game. Sacramento, CA. 166 pp.

Miller, V. C. 1972. Soil Survey of Sonoma County, California. U. S. Department of Agriculture, Soil Conservation Service, Santa Rosa. 188 pp.

Mueller-Dombois, D. and H. Ellenberg. 1974. Aims and Methods of Vegetation Ecology. Jon Wiley and Sons, New York. 547 pp.

Reed, P. B. 1988. National List of Plant Species That Occur in Wetlands: California (Region 0). U. S. Stadium Lands and Wildlife Service, Biological Report 88 (26.10). 135 pp.

Santa Rosa Plain Conservation Strategy Team (SRPCST). 2005. Santa Rosa Plain Conservation Strategy (Final). December 1, 2005.

Tatarian, P. 2008. Movement Patterns of California Red-Legged Frog (*Rana Draytonii*) in an Inland California Environment. Herpetological Conservation and Biology 3(2):115-169

Trenham, P.C. and H.B. Shaffer. 2005. Amphibians upland habitat use and its consequences for population viability. Ecological Applications, 15(4): 1158-1168.

United States Fish and Wildlife Service (USFWS). 1996a. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (Sept. 23, 1996).

United States Fish and Wildlife Service (USFWS). 1996b. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed Plants on the Santa Rosa Plain, Sacramento, CA

United States Fish and Wildlife Service (USFWS). 2003a. Interim Guidelines on Site Assessment and Field Surveys for Determining Presence or a Negative Finding for the California Tiger Salamander Letter dated October, 2003. Sacramento, CA.

United States Fish and Wildlife Service (USFWS). 2007. Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California (Corps File Number 223420N).

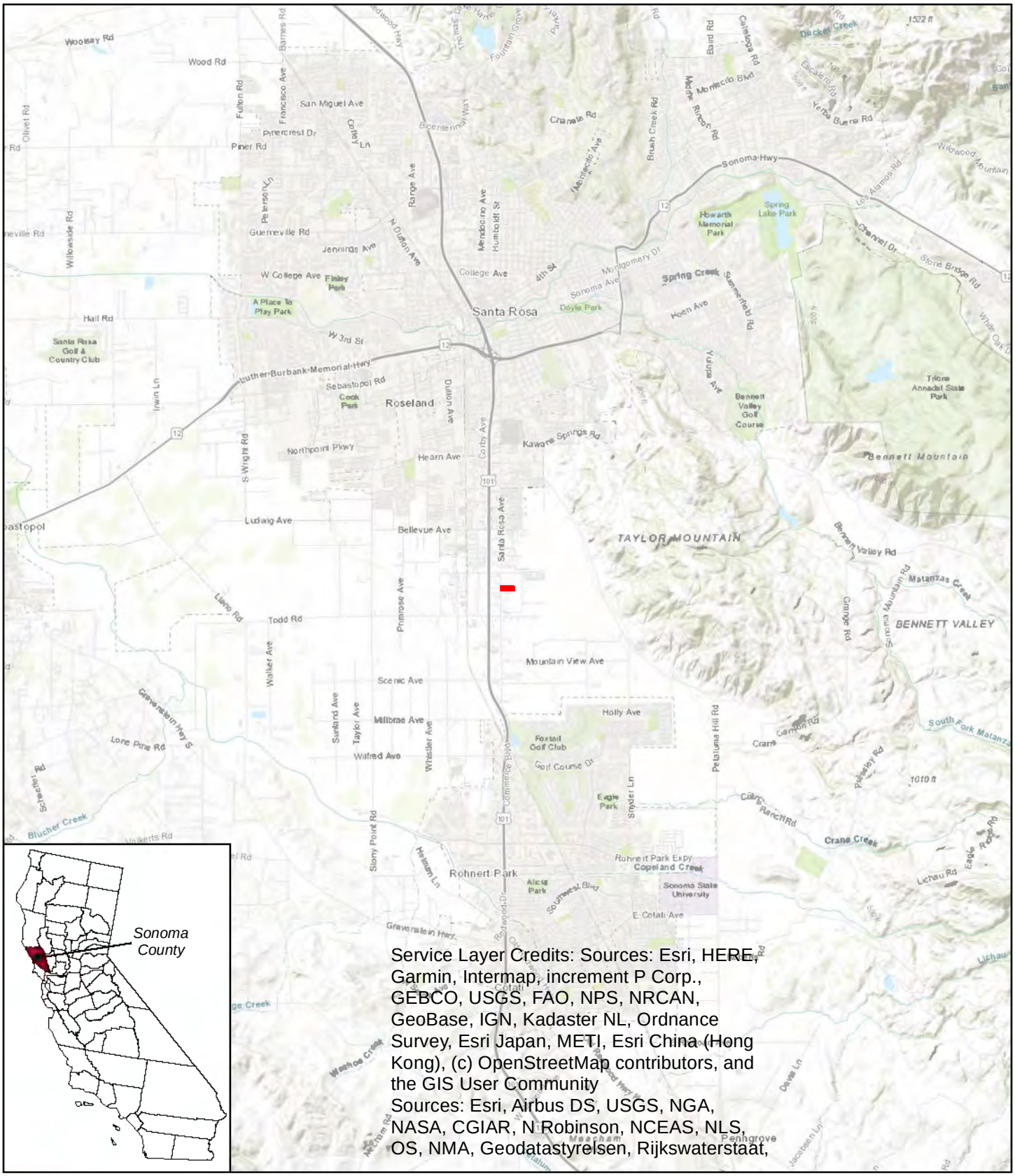
United States Fish and Wildlife Service (USFWS). 2012. Threatened and Endangered Species database System (TESS). Species Information – Threatened and Endangered Plants and Animals.

Zedler, P. H. 1987. The ecology of southern California vernal pools: a community profile. U.S. Fish and Wildlife Service Biological Report 85 (7.11).

U.S. Fish and Wildlife Service (USFWS). 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. viii + 173 pp.

United States Fish and Wildlife Service, Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog, August 2005.

FIGURES



Site Boundary

0 2 4 8 Miles

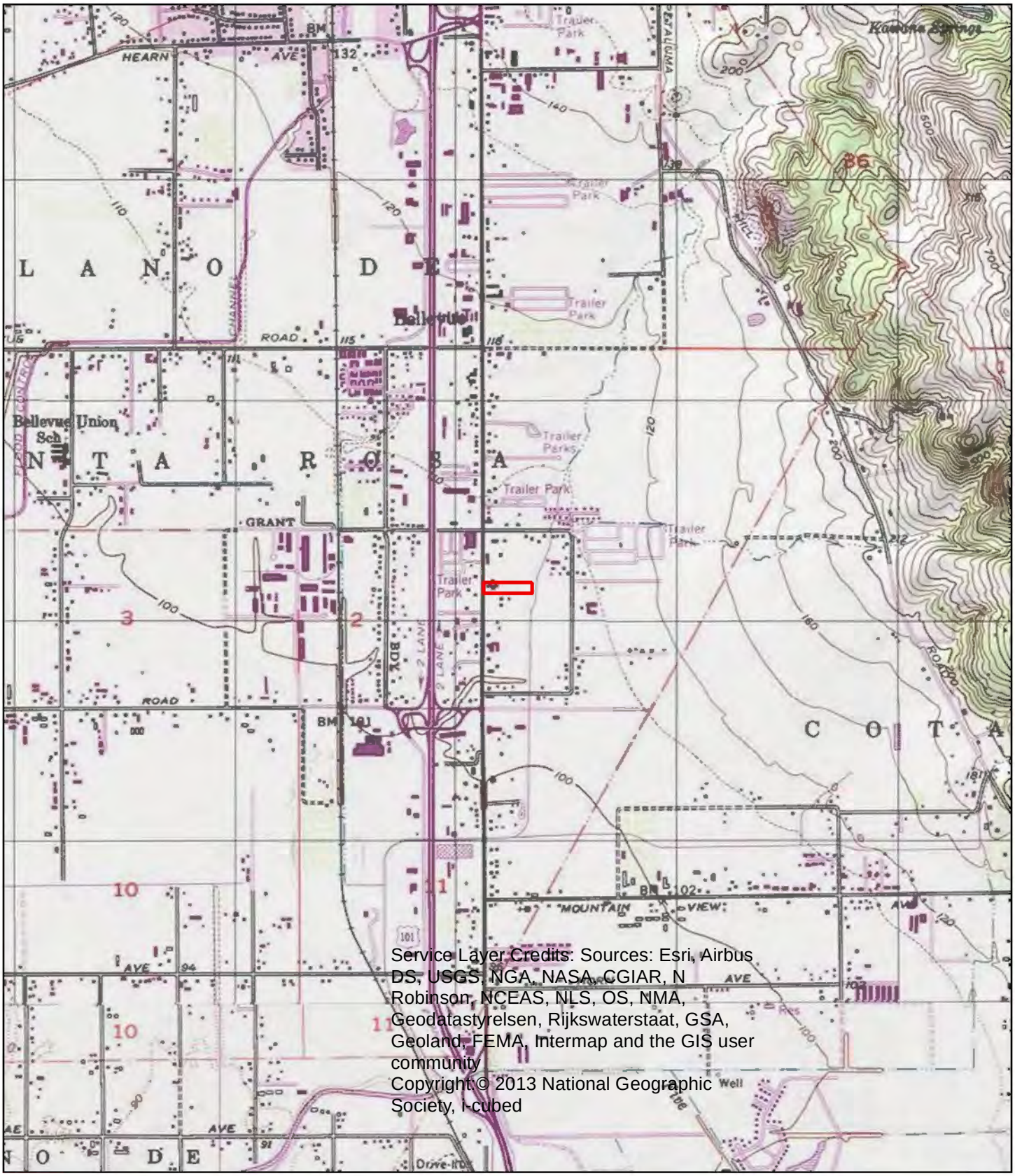
Figure 1 - Site Vicinity Map

Los Pinos Apartments
3496 Santa Rosa Avenue, Santa Rosa, CA
APN: 134-132-015

N

Wiemeyer Ecological Sciences
4000 Montgomery Drive, Suite L-5
Santa Rosa, CA 95405

Parcel boundary provided by Sonoma County
Map date: 7/2018=9



Site Boundary

0 0.5 1 2 Miles

Figure 2 - USGS Map	
Los Pinos Apartments 3496 Santa Rosa Avenue, Santa Rosa, CA APN: 134-132-015	Wiemeyer Ecological Sciences 4000 Montgomery Drive, Suite L-5 Santa Rosa, CA 95405 Parcel boundary provided by Sonoma County Map date: 7/2019

N

Site Boundary

CeA - Clear Lake clay, sandy substratum, drained, 0 to 2 percent slopes, MLRA 14

WoA - Wright loam, shallow, wet, 0 to 2 percent slopes

Figure 3 - Soils Map

Los Pinos Apartments
3496 Santa Rosa Avenue, Santa Rosa, CA
APN: 134-132-015

0 25 50 100 150 200 Feet

N

Wiemeyer Ecological Sciences
4000 Montgomery Drive, Suite L-5
Santa Rosa, CA 95405

Parcel boundary provided by Sonoma County
Soils provided by NRCS
Map date: 7/2019

Figure 4 - Habitat Map Los Pinos Apartments 3496 Santa Rosa Avenue, Santa Rosa, CA APN: 134-132-015	N Wiemeyer Ecological Sciences 4000 Montgomery Drive, Suite L-5 Santa Rosa, CA 95405	Parcel boundary provided by Sonoma County Map date: 7/2019 Aerial: Google	Site Boundary Hardscape (.36 ac.) Wetland Areas (.3 ac.) NAG - Non-native annual grassland 0 50 100 200 Feet

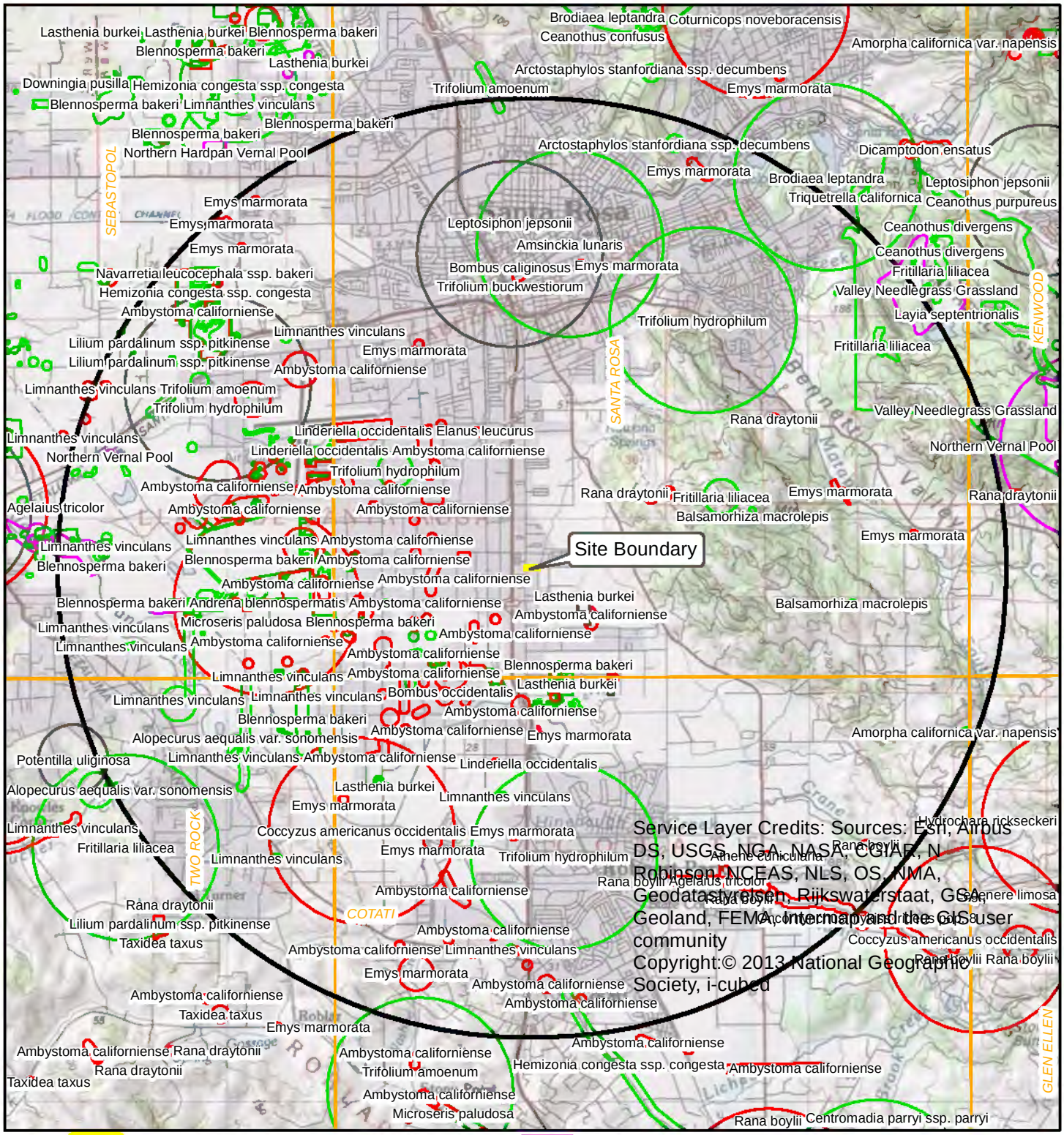


Figure 5 - CNDDB Occurrences	
Los Pinos Apartments 3496 Santa Rosa Avenue, Santa Rosa, CA APN: 134-132-015	N Wiemeyer Ecological Sciences 4000 Montgomery Drive, Suite L-5 Santa Rosa, CA 95405
	Parcel boundary provided by Sonoma County CNDDB provided by CDFW (v. 6/2019) Map date: 7/2019

3496 SANTA ROSA AVENUE

GRADING PERMIT

APN 134-132-015

GENERAL NOTES

1. ALL MATERIAL, WORKMANSHIP, AND CONSTRUCTION SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS AND STANDARD PLANS (2015 EDITION).
2. FOR ANY WORK TO BE PERFORMED ON THE COUNTY RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE COUNTY OF SONOMA PERMIT AND RESOURCE MANAGEMENT DEPARTMENT, 2550 VENTURA AVENUE, SANTA ROSA, BEFORE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY THE PERMIT AND RESOURCE MANAGEMENT DEPARTMENT'S CONSTRUCTION INSPECTOR BEFORE STARTING WORK. SEE 'INSPECTIONS' BELOW FOR REQUIRED NOTIFICATIONS AND APPROVALS. FINAL INSPECTION MAY NOT BE REQUIRED UNTIL THE GRADING INSPECTOR RECEIVES, REVIEWS, AND APPROVES BOTH THE ENGINEER'S FINAL LETTER AND THE FINAL GEOTECHNICAL REPORT. THIS APPROVAL MUST BE OBTAINED PRIOR TO SCHEDULING A FINAL INSPECTION.
4. RESTORATION OF EXISTING SURFACING DUE TO CONSTRUCTION OF TRENCHES SHALL BE GOVERNED BY THE CONDITIONS IN THE ROAD ENCROACHMENT PERMIT OR AS SHOWN ON THESE PLANS.
5. THE COUNTY MAY REQUIRE ADDITIONAL WORK OR FACILITIES IN THE COURSE OF THE CONSTRUCTION OF PROJECT IN ORDER FOR THE IMPROVEMENTS TO REASONABLY PROVIDE FOR THE INTENDED FUNCTION OR FOR PUBLIC SAFETY.

GRADING AND DRAINAGE NOTES

1. PERFORM GRADING AND DRAINAGE IMPROVEMENTS IN ACCORDANCE WITH CHAPTER 11 AND 11A OF THE SONOMA COUNTY CODE (SCC), APPLICABLE SONOMA COUNTY REGULATIONS AND TO THE RECOMMENDATIONS OF THE SOILS REPORT PREPARED BY PJC & ASSOCIATES, INC. AND DATED MARCH 12, 2018.
2. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE APPROVED PLANS AND SPECIFICATIONS SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL OF THE SONOMA COUNTY PERMIT AND RESOURCE MANAGEMENT DEPARTMENT (PRMD). PROPOSED MODIFICATIONS TO THE APPROVED PLANS AND SPECIFICATIONS SHALL BE SUBMITTED TO PRMD IN WRITING, TOGETHER WITH ALL NECESSARY TECHNICAL INFORMATION AND DESIGN DETAILS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROPERTY OWNER AND ENGINEER OF RECORD, IF APPLICABLE, UPON DISCOVERING DISCREPANCIES, ERRORS, OR OMISSIONS IN THE APPROVED PLANS. PRIOR TO PROCEEDING, THE PROPERTY OWNER SHALL HAVE THE APPROVED PLANS REVISED TO CLARIFY IDENTIFIED DISCREPANCIES, ERRORS, OR OMISSIONS. PRMD MAY REQUIRE UNAUTHORIZED WORK TO BE REDONE OR REMOVED TO VERIFY COMPLIANCE WITH SCC. PRMD MAY INITIATE ENFORCEMENT ACTION AND SEEK THE IMPOSITION OF CIVIL PENALTIES FOR VIOLATIONS OF SCC.
3. THE GRADING OR DRAINAGE PERMIT AND A COPY OF THE APPROVED PLANS SHALL BE MAINTAINED ON THE PROJECT SITE THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.
4. PRMD MAY ORDER THAT ANY WORK STOP IMMEDIATELY IF IT IS PERFORMED CONTRARY TO CHAPTER 11 AND 11A OF THE SCC, THE APPROVED PLANS AND SPECIFICATIONS, PERMIT CONDITIONS, OR ANY WORK THAT HAS BECOME HAZARDOUS TO PROPERTY OR THE PUBLIC. A GRADING OR DRAINAGE PERMIT MAY BE SUSPENDED, REVOKED, OR MODIFIED BY PRMD IN ACCORDANCE WITH SCC 11.24.080.
5. ISSUANCE OF A GRADING OR DRAINAGE PERMIT BY PRMD DOES NOT ELIMINATE THE RESPONSIBILITY OF THE PROPERTY OWNER TO SECURE PERMITS FROM OTHER AGENCIES WITH REGULATORY RESPONSIBILITIES FOR THE USES AND CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE WORK SHOWN ON THE APPROVED PLANS. FAILURE TO OBTAIN ALL REQUIRED PERMITS MAY RESULT IN FINES FROM OTHER AGENCIES.
6. EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THE PROJECT SITE AND LOCATED THROUGHOUT THE PROJECT SITE SHALL REMAIN OPEN AND CLEAR OF DEBRIS TO PROPERLY CONVEY STORM WATER. IF EXISTING DRAINAGE COURSES RECEIVING WATERS FROM THE PROJECT SITE ARE LOCATED IN THE COUNTY RIGHT-OF-WAY AND NEED MAINTENANCE, CONTACT THE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS AT (707)565-2231 FOR FURTHER ASSISTANCE. IN ANY EVENT, THE PROPERTY OWNER AND/OR CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
7. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND SERVICE ALERT (USA), AT 811, AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN 14 CALENDAR DAYS, PRIOR TO EXCAVATION. THE CONTRACTOR SHALL UNCOVER RELEVANT UTILITIES TO VERIFY THEIR LOCATION AND ELEVATION. IF UNEXPECTED OR CONFLICTING UTILITIES ARE ENCOUNTERED DURING EXCAVATION, NOTIFY USA, THE UTILITY OWNER, AND/OR THE ENGINEER OF RECORD, IF APPLICABLE, IMMEDIATELY. UTILITIES INCLUDE BUT ARE NOT LIMITED TO WATER, SEWER, ELECTRICAL, GAS, TELEPHONE, AND CABLE/TV. THE EXCAVATOR SHALL DELINEATE WITH PAINT OR OTHER SUITABLE MARKINGS THE AREA TO BE EXCAVATED.
8. IN THE EVENT CULTURAL RESOURCES (SUCH AS HISTORICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL RESOURCES, AND HUMAN REMAINS) ARE DISCOVERED DURING GRADING OR OTHER CONSTRUCTION ACTIVITIES, WORK SHALL IMMEDIATELY BE HALTED WITHIN THE VICINITY OF THE FIND. THE NORTHWEST INFORMATION CENTER SHALL BE NOTIFIED AT (707) 588-8455. A QUALIFIED ARCHEOLOGIST SHALL BE CONSULTED FOR AN ON-SITE EVALUATION. ADDITIONAL MITIGATION MAY BE REQUIRED BY THE COUNTY PER THE ARCHEOLOGIST'S RECOMMENDATIONS AND SCC 11.16.050. IF HUMAN BURIALS OR HUMAN REMAINS ARE ENCOUNTERED, THE CONTRACTOR SHALL ALSO NOTIFY THE COUNTY CORONER AT (707) 565-5070.
9. SHOULD GRADING OPERATIONS ENCOUNTER HAZARDOUS MATERIALS, OR WHAT APPEAR TO BE HAZARDOUS MATERIALS, STOP WORK IMMEDIATELY IN THE CONTAMINATED AREA AND CONTACT 911 OR THE APPROPRIATE AGENCY FOR FURTHER INSTRUCTION.
10. RETAINING WALLS, UNLESS EXEMPTED PER SCC 7.13(A)(3)4, ARE NOT APPROVED UNDER A GRADING PERMIT. A SEPARATE BUILDING PERMIT IS REQUIRED.
11. EQUIPMENT SHALL NOT CROSS OR DISTURB CHANNELS OF ACTIVELY FLOWING STREAMS WITHOUT A PRMD APPROVED ROILING PERMIT AND BEST MANAGEMENT PRACTICES (SCC 23.1 AND 11.16.060.D).
12. GRADING AND DRAINAGE IMPROVEMENTS SHALL BE SET BACK FROM LAKES, PONDS, STREAMS, AND WETLANDS IN COMPLIANCE WITH THE REQUIREMENTS OF SCC 11.16.100, 11.16.120. AND 11.16.130. EXISTING VEGETATION SHALL BE RETAINED IN STREAM SETBACK AREAS TO FILTER SOIL AND OTHER POLLUTANTS CARRIED IN STORM WATER.
13. EXCESS SOIL SHALL BE REMOVED FROM THE PROJECT SITE UNLESS DEPICTED TO REMAIN ON SITE PER THE APPROVED PLAN. THE SITE RECEIVING SOIL MAY REQUIRE A GRADING PERMIT UNLESS EXEMPTED BY SCC 11.04.010.C.
14. CONTOURS, ELEVATIONS, AND SHAPES OF FINISHED SURFACES SHALL BE BLENDED WITH ADJACENT NATURAL TERRAIN TO ACHIEVE A CONSISTENT GRADE AND NATURAL APPEARANCE. BORDERS OF CUT SLOPES AND FILLS SHALL BE ROUNDED OFF TO A MINIMUM RADIUS OF FIVE FEET TO BLEND WITH THE NATURAL TERRAIN.
15. FILL MATERIALS SHALL NOT INCLUDE ORGANIC, FROZEN, OR OTHER DELETERIOUS MATERIALS. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL GREATER THAN SIX INCHES IN ANY DIMENSION SHALL BE INCLUDED IN FILL EXCEPT WHERE APPROVED BY THE SOILS ENGINEER. FILLS SHALL BE CONSTRUCTED IN LIFTS NOT EXCEEDING EIGHT INCHES IN DEPTH. COMPLETED FILLS SHALL BE STABLE, WELL-INTEGRATED, AND BONDED TO ADJACENT MATERIALS AND THE MATERIALS ON WHICH THEY REST. FILLS SHALL BE COMPETENT TO SUPPORT ANTICIPATED LOADS AND BE STABLE AT THE DESIGN SLOPES SHOWN ON THE APPROVED PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE SOILS ENGINEER.
16. GROUND SURFACES SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, TOPSOIL, AND OTHER UNSUITABLE MATERIALS, AND SCARIFYING THE GROUND TO PROVIDE A BOND WITH THE FILL MATERIAL.
17. FILL SHALL NOT BE PLACED ON NATURAL SLOPES STEEPER THAN 2H:V1 (50 PERCENT).
18. FILLS INTENDED TO SUPPORT STRUCTURES OR SURCHARGES SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D 1557, MODIFIED PROCTOR. A HIGHER COMPACTION PERCENTAGE MAY BE REQUIRED BY THE SOILS ENGINEER.
19. FILLS NOT INTENDED TO SUPPORT STRUCTURES OR SURCHARGES SHALL BE COMPACTED AS FOLLOWS:
 A) FILL GREATER THAN THREE FEET IN DEPTH SHALL BE COMPACTED TO THE DENSITY SPECIFIED BY THE SOILS ENGINEER.
 B) FILLS NO GRATER THAN THREE FEET IN DEPTH SHALL BE COMPACTED TO THE DENSITY NECESSARY FOR THE INTENDED USE OR AS DIRECTED BY THE SOILS ENGINEER.

STORM DRAIN NOTES

1. ALL PUBLIC STORM DRAIN SHOWN SHALL BE HDPE UNLESS OTHERWISE NOTED.
2. PRIVATE STORM DRAIN SHALL BE SDR 35 PVC, ADS N-12 PIPE, HDPE OR AS OTHERWISE NOTED.
3. STORM DRAIN PIPE LENGTHS SHOWN ARE MEASURED HORIZONTALLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. STORM DRAIN SYSTEM SHALL BE KEPT FREE OF DIRT AND DEBRIS DURING ALL PHASES OF CONSTRUCTION. NO DIRT OR DEBRIS SHALL BE WASHED DOWNSTREAM IN PIPES.
5. ALL PRIVATE DRAINAGE FACILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.

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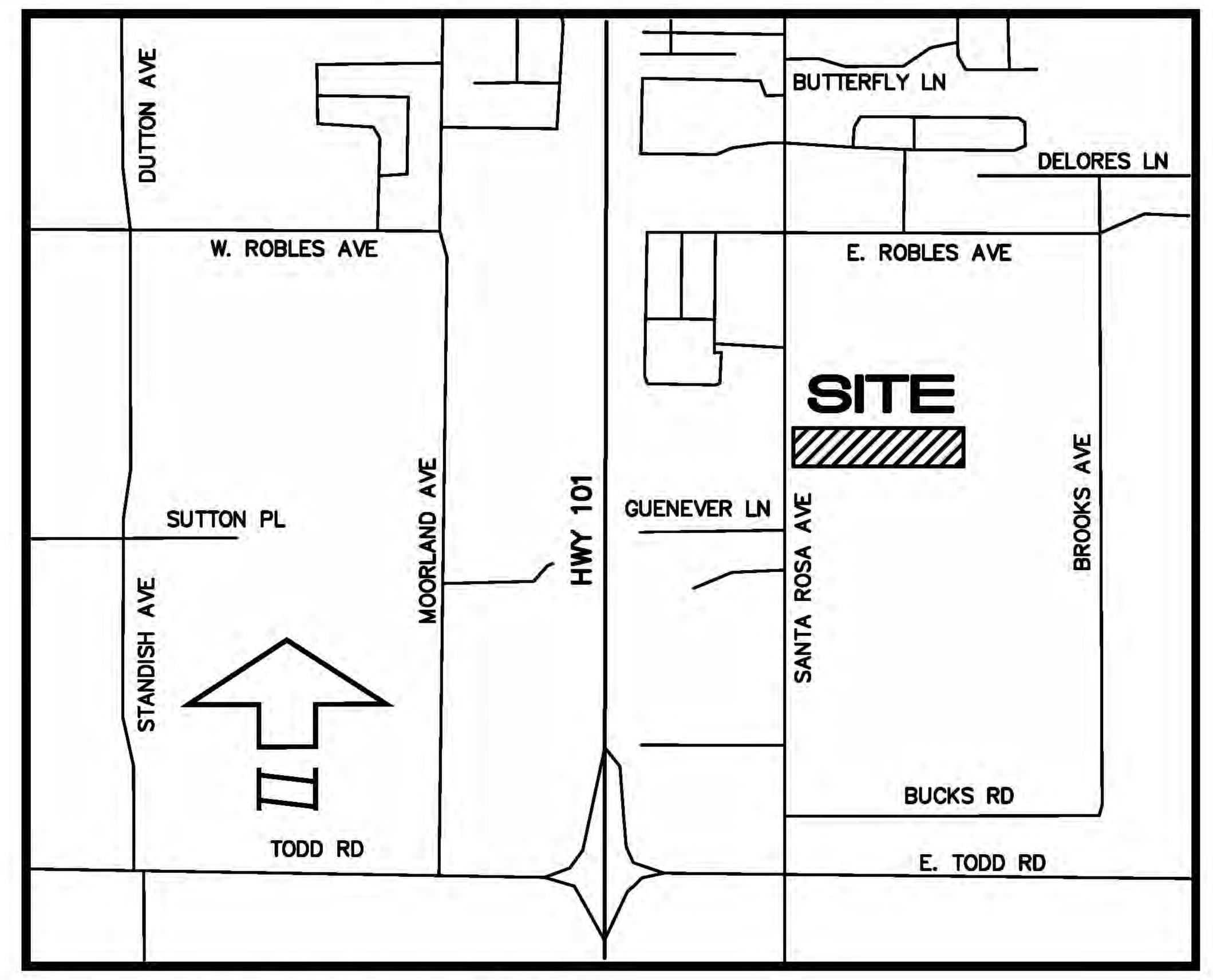


LOCATION MAP

NO SCALE

BASIS OF BEARINGS

BEING NORTH 0°46'22" WEST ALONG THE CENTERLINE OF SANTA ROSA AVENUE AS SHOWN ON THAT RECORD OF SURVEY FILED IN BOOK 608 OF MAPS, PAGE 19, SONOMA COUNTY RECORDS.

BENCHMARK

CITY OF SANTA ROSA BENCHMARK C302, BEING A COUNTY DISK IN WELL MONUMENT NEAR THE CENTERLINE INTERSECTION OF SANTA ROSA AVENUE AND EAST ROBLES AVENUE. ELEVATION = 107.354.

OWNER AND DEVELOPER

LOS PINOS APARTMENTS, LLC
ALEX SANTANA, PARTNER
5885 MOUNTAIN HAWK DRIVE
SANTA ROSA, CA 95409
(707) 954-6551

ENGINEER

CIVIL DESIGN CONSULTANTS, INC.
2200 RANGE AVENUE, SUITE 204
SANTA ROSA, CA 95403
(707) 542-4820

SURVEYOR

CINQUINI & PASSARINO, INC.
1360 NORTH DUTTON AVE., STE 150
SANTA ROSA, CA 95401
(707) 542-6268

GRADING AND DRAINAGE INSPECTION NOTES

1. THE PERMITTEE AND THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE WORK TO BE PERFORMED IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, CHAPTER 11 AND 11A OF THE SONOMA COUNTY CODE (SCC), AND ANY PERMIT CONDITIONS. WORK SHALL BE SUBJECT TO INSPECTION AS REQUIRED BY THE SONOMA COUNTY PERMIT AND RESOURCE MANAGEMENT DEPARTMENT (PRMD) TO VERIFY COMPLIANCE. THE CONTRACTOR SHALL CONSULT THE PROJECT JOB CARD FOR COORDINATION OF INSPECTION REQUESTS.
2. PRIOR TO THE START OF ANY GRADING OR DRAINAGE WORK, THE PERMITTEE SHALL HAVE A PRE-CONSTRUCTION CONSULTATION WITH PRMD STAFF TO DISCUSS THE SCOPE OF THE PROJECT, PERMIT CONDITIONS, REQUIRED INSPECTIONS, APPROPRIATE APPLICATION OF BEST MANAGEMENT PRACTICES (BMP'S) AND ANY OTHER CONSTRUCTION ISSUES.
3. INSPECTION REQUESTS SHALL BE MADE THROUGH THE SONOMA COUNTY AUTOMATED INSPECTION REQUEST SYSTEM (SELECTRON), AT PHONE NUMBER (707) 565-3551.
4. PRMD MAY REQUIRE PROFESSIONAL INSECTIONS AND CERTIFICATIONS TO VERIFY PROPER COMPLETION OF THE WORK. WHERE THE USE OF PROFESSIONAL PERSONNEL IS REQUIRED, THESE PERSONNEL SHALL IMMEDIATELY REPORT IN WRITING TO PRMD AND THE PERMITTEE ANY INSTANCE OF WORK NOT IN COMPLIANCE WITH THE APPROVED PLANS, SPECIFICATIONS, OR ANY PERMIT CONDITIONS. IF PROFESSIONAL PERSONNEL IS CHANGED DURING THE COURSE OF THE WORK, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT INDIVIDUAL HAS NOTIFIED PRMD IN WRITING OF THEIR AGREEMENT TO ACCEPT RESPONSIBILITY FOR APPROVAL OF THE COMPLETED WORK WITHIN THE AREA OF THEIR TECHNICAL COMPETENCE.
5. PRMD SHALL FINAL A PERMIT WHEN ALL WORK, INCLUDING THE INSTALLATION OF ALL DRAINAGE IMPROVEMENTS AND THEIR PROTECTIVE DEVICES, AND ALL STORM WATER BMP'S, HAVE BEEN COMPLETED IN COMPLIANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND ALL FINAL REPORTS REQUIRED BY SCC 11.14.040.A HAVE BEEN SUBMITTED AND ACCEPTED. FINAL REPORTS MAY INCLUDE: AS-BUILT PLANS, TESTING RECORDS, PROFESSIONAL OPINIONS, AND DECLARATIONS ABOUT COMPLETED WORK FROM PROFESSIONAL PERSONNEL. SIMILAR REPORTS MAY BE REQUIRED AT OTHER STAGES OF THE WORK.
6. THE PERMITTEE SHALL PROVIDE ADEQUATE AND SAFE ACCESS TO THE PROJECT SITE FOR INSPECTION DURING THE PERFORMACE OF ALL WORK.
7. DURING CONSTRUCTION ACTIVITIES, THE PROJECT SITE ADRESS SHALL BE POSTED AS FOLLOWS:
 A) THE STREET NUMBERS MUST BE AT LEAST FOUR INCHES TALL, WITH A REFECTIVE SURFACE.
 B) THE ADDRESS MUST BE VISIBLE FORM BOTH DIRECTIONS ALONG THE ROAD.
 C) THE ADDRESS MUST BE POSTED AT ALL FORKS IN ANY ACCESS ROAD AND AT THE PROJECT SITE.

EARTHWORK ESTIMATE NOTE

THE SONOMA COUNTY PERMIT AND RESOURCE MANAGEMENT DEPARTMENT REQUIRES EARTHWORK ESTIMATES TO BE SHOWN ON THE PLANS FOR PERMITTING PURPOSES. ACTUAL EARTHWORK BALANCE WILL DEPEND ON THE TIME OF YEAR, TYPE OF MOISTURE CONDITIONING, GRADING PRACTICES, AND THE UNCERTAINTIES OF THE SHRINK/SWELL AND SUBSIDENCE CHARACTERISTICS OF THE SOIL. ADJUSTMENT TO GRADES ARE TO BE EXPECTED. THE GRADING CONTRACTOR SHALL DETERMINE HIS OWN EARTHWORK QUANTITIES FOR CONSTRUCTION PURPOSES.

ESTIMATED CUT VOLUME: ±10 CY
ESTIMATED FILL VOLUME: ±4630 CY

PURPOSE STATEMENT

THE PURPOSE OF THESE PLANS IS TO SECURE A GRADING PERMIT FROM SONOMA COUNTY PRMD TO IMPORT APPROXIMATELY 4630 CY OF FILL IN ORDER TO RAISE THE SITE ABOVE THE PROJECTED 100 YEAR FLOOD LINE FOR FUTURE DEVELOPMENT.

ABBREVIATIONS

AB	AGGREGATE BASE	L	LENGTH
AC	ASPHALT CONCRETE	LP.	LOW POINT
BC	BEGIN CURVE	MIN.	MINIMUM
CL	CENTERLINE	MAX.	MAXIMUM
CMP	CORRUGATED METAL PIPE	MAY.	NUMBER
DET.	DETAIL	PRMD	PERMIT & RESOURCE MANAGEMENT DEPARTMENT
DOC	DOCUMENT		
EG	EXISTING GRADE	R	RADIUS
EL	ELEVATION	RSP	ROCK SLOPE PROTECTION
ELEV.	ELEVATION	S	SLOPE (FT/FT)
ESMT	EASEMENT	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDCB	STORM DRAIN CATCH BASIN
EX	EXISTING	SDDI	STORM DRAIN DROP INLET
FG	FINISH GRADE	SHT.	SHEET
FL	FLOW LINE	SHLDR.	SHOULDER
℄	FLOW LINE	STA	STATION
GB	GRADE BREAK	TB	TOP OF BANK
HP	HIGH POINT	TOE	TOE OF SLOPE
IG	INVERT GRADE	TYP.	TYPICAL

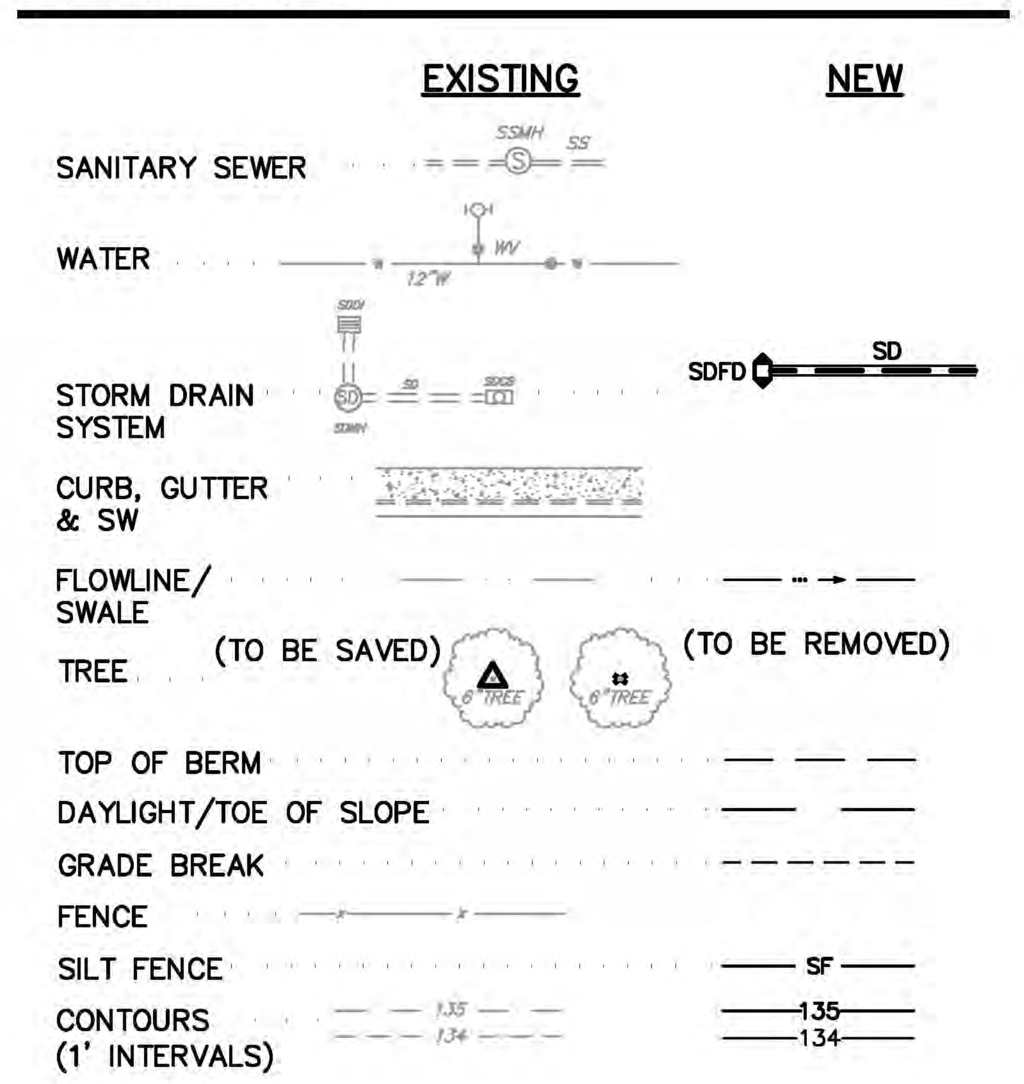
INDEX OF DRAWINGS

AMOUNT OF DISTURBED AREA

2.25 ACRES

WDID # ____________

LEGEND



REVISIONS

NO.	REVISION	DATE	R.C.E.

PROFESSIONAL ENGINEER ANDREW BORDESSA No. 34368 CIVIL STATE OF CALIFORNIA REGISTERED

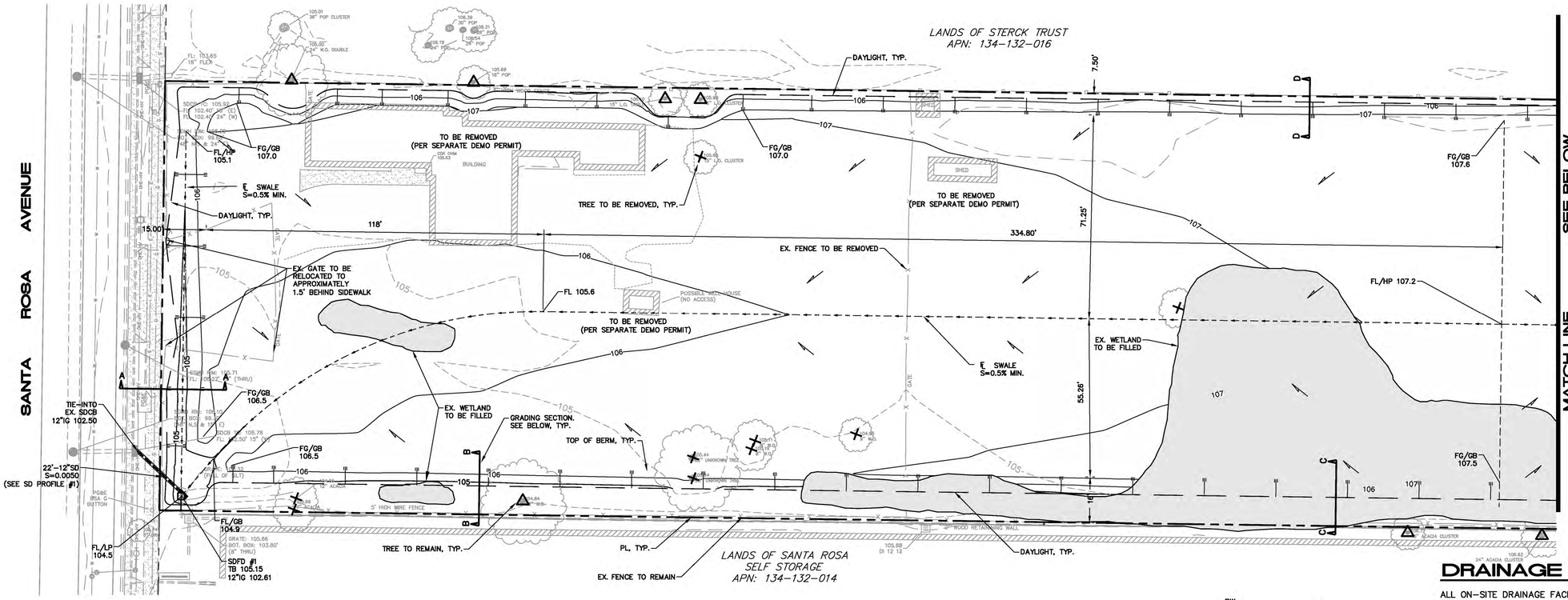
ANDREW BORDESSA
RCE 34368
DATE

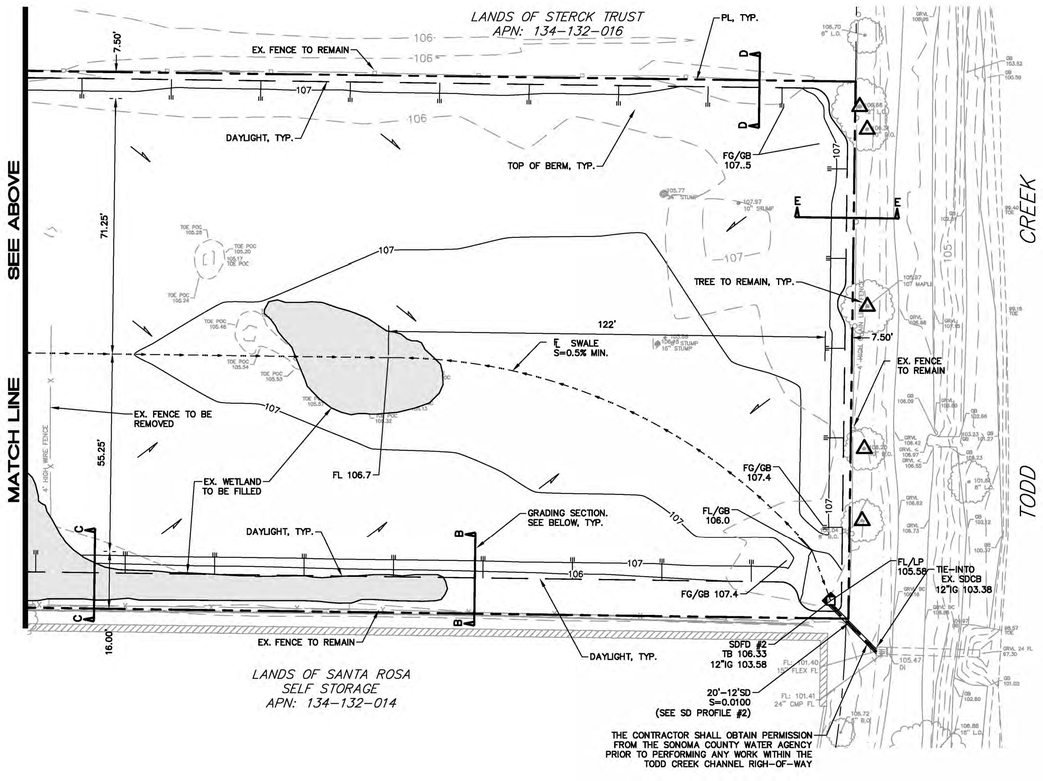
CIVIL DESIGN CONSULTANTS, INC.
2200 Range Avenue, Suite 204
Santa Rosa, CA 95403
(707) 542-4820

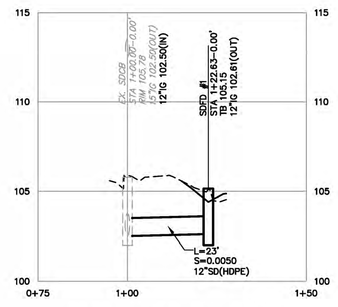
COVER SHEET, NOTES, LEGEND AND ABBREVIATIONS
3496 SANTA ROSA AVENUE
SANTA ROSA, CALIFORNIA
APN: 134-132-015
JUNE 2019

JOB NO. 18-138

SHEET NO. 1 OF 4 SHEETS







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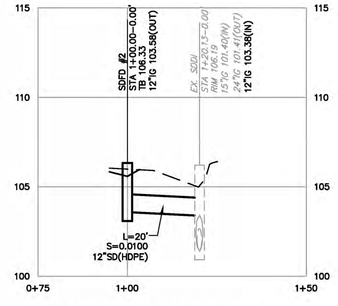
(PROFILE #1)



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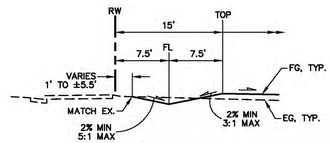

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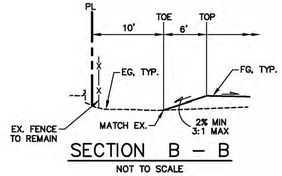

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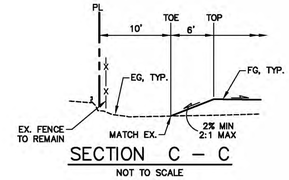

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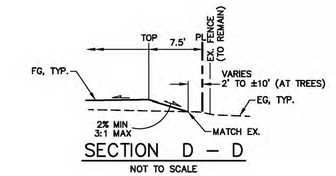

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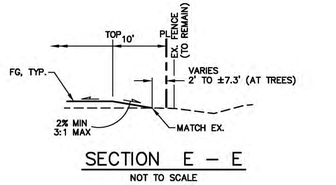


SECTION E – E
NOT TO SCALE

DRAINAGE STRUCTURES

ALL ON-SITE DRAINAGE FACILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED. DRAINAGE STRUCTURES SHALL BE PRECAST CONCRETE AS MANUFACTURED BY OLDCASTLE, CHRISTY CONCRETE PRODUCTS, INC. OR EQUIVALENT AS APPROVED BY THE ENGINEER AND THE COUNTY OF SONOMA. TYPE AND MODEL AS SPECIFIED:

SDFD #1 & #2 — OLDCASTLE PRECAST MODEL DI-1818 WITH 2 SIDE OPENINGS AND 1/4" GALVANIZED CHECKER PLATE COVER. SIDE OPENINGS SHALL BE TRAPEZOIDAL WITH A DEPTH OF 9" MEASURED FROM TOP OF BOX. SET BOTTOM OF SIDE OPENINGS AT FINISH GRADE.

GRADING SECTIONS

REVISIONS

NO.	REVISION	DATE	R.C.E.

PROFESSIONAL ENGINEER * VIRGINIA
ANDREW BORDESSA
No. 34368
REGISTERED * STATE OF CALIFORNIA
CIVIL
DATE

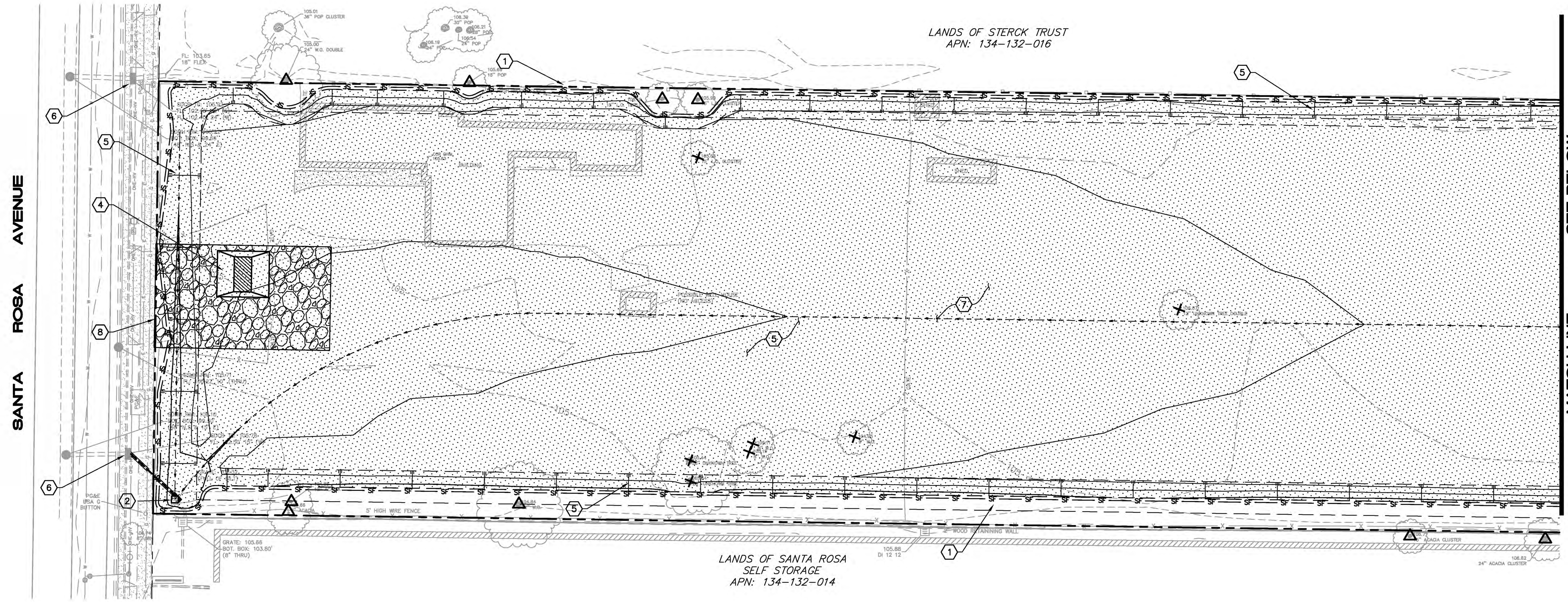
ANDREW BORDESSA
RCE 34368

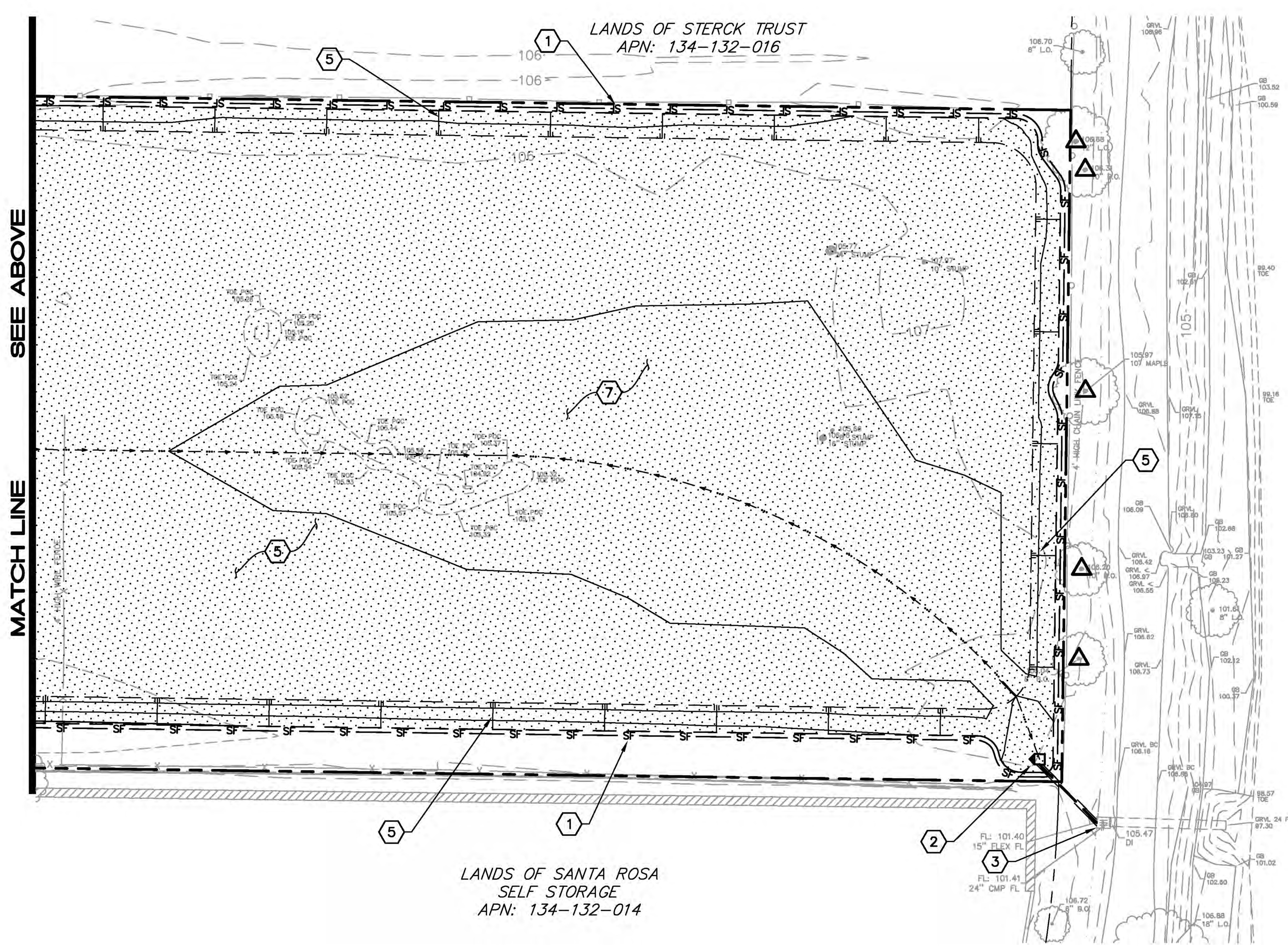
CIVIL DESIGN CONSULTANTS, INC.
2200 Range Avenue, Suite 204
Santa Rosa, CA 95403
(707) 542-4920

GRADING, DRAINAGE AND UTILITY PLAN
3496 SANTA ROSA AVENUE
SANTA ROSA, CALIFORNIA
APN: 134-132-015
JULY 2019

JOB NO.
18-138

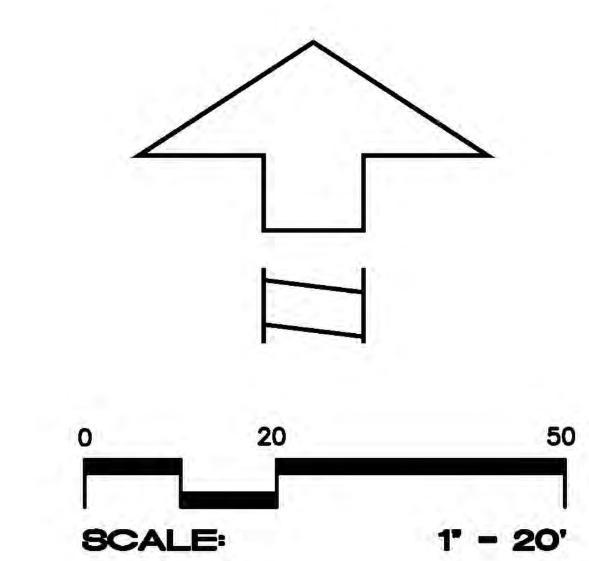
SHEET NO.
2
OF 4 SHEETS





KEY NOTES

1. INSTALL SILT FENCE AT TOE OF SLOPE PER DETAIL A, SHEET 4, TYP.
2. INSTALL STRAW WATTLE AT FIELD DRAIN PER DETAIL B, SHEET 4.
3. INSTALL SILT SOCK AT EXISTING DROP INLET PER DETAIL C, SHEET 4.
4. INSTALL TRUCK TIRE WASH PER DETAIL D, SHEET 4.
5. INSTALL STRAW WATTLES PER DETAIL E, SHEET 4, TYP.
6. INSTALL FILTER DAM AT EXISTING CATCH BASIN PER DETAIL F, SHEET 4.
7. HYDROSEED PER EROSION CONTROL NOTE 16, SHEET 4, TYP.
8. STABILIZED CONSTRUCTION ENTRANCE:
   - 24' WIDE (MIN.) X 50' LONG (MIN.)
   - 36' WIDE (MIN.) AT TIRE WASH
   - 6" MIN. DEPTH OF 1 ½" MAX. COARSE AGGREGATE



REVISIONS

NO.	REVISION	DATE	R.C.E.

ANDREW BORDESSA
RCE 34368
DATE

CIVIL DESIGN CONSULTANTS, INC.
2200 Range Avenue, Suite 204
Santa Rosa, CA 95403
(707) 542-4820

EROSION CONTROL PLAN
3496 SANTA ROSA AVENUE
SANTA ROSA, CALIFORNIA
APN: 134-132-015
JUNE 2019

JOB NO. 18-138

SHEET NO. 3
OF 4 SHEETS

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

1. PERFORM EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH CHAPTER 11 AND 11A OF THE SONOMA COUNTY CODE (SCC).
2. THE APPROVED PLANS SHALL CONFORM TO THE PERMIT AND RESOURCE MANAGEMENT DEPARTMENT'S (PRMD) EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMP'S) GUIDE AS POSTED ON THE PRMD WEBSITE.
3. THE PROPERTY OWNER IS RESPONSIBLE FOR PREVENTING STORM WATER POLLUTION GENERATED FROM THE CONSTRUCTION SITE YEAR ROUND. WORK SITES WITH INADEQUATE EROSION AND SEDIMENT CONTROL MAY BE SUBJECT TO A STOP WORK ORDER AND/OR ADDITIONAL INSPECTION FEES TO VERIFY COMPLIANCE WITH SCC.
4. IF DISCREPANCIES OCCUR BETWEEN THESE NOTES, MATERIAL REFERENCED ON THE APPROVED PLANS OR MANUFACTURER'S RECOMMENDATIONS, THEN THE MOST PROTECTIVE SHALL APPLY.
5. AT ALL TIMES THE OWNER IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH THE STATE OF CALIFORNIA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBING ACTIVITIES SUCH AS CLEARING, GRADING, EXCAVATION, STOCKPILING, AND RECONSTRUCTION OF EXISTING FACILITIES INVOLVING REMOVAL AND REPLACEMENT.
6. THE PROPERTY OWNER MUST IMPLEMENT AN EFFECTIVE COMBINATION OF EROSION PREVENTION AND SEDIMENT CONTROL ON ALL DISTURBED AREAS DURING THE RAINY SEASON (OCTOBER 1 – APRIL 30). GRADING AND DRAINAGE IMPROVEMENT SHALL BE PERMITTED DURING THE RAINY SEASON ONLY WHEN ON-SITE SOIL CONDITIONS PERMIT THE WORK TO BE PERFORMED IN COMPLIANCE WITH SCC.
7. DURING THE RAINY SEASON, STORM WATER BMP'S REFERENCED OR DETAILED IN PRMD'S BMP GUIDE SHALL BE IMPLEMENTED AND FUNCTIONAL ON THE SITE AT ALL TIMES AND THE AREA OF ERODIBLE LAND EXPOSED AT ANY ONE TIME DURING THE WORK SHALL NOT EXCEED ONE ACRE OR 20 PERCENT OF THE PERMITTED WORK AREA, WHICHEVER IS GREATER, AND THE TIME OF EXPOSURE SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE.
8. DURING THE NON-RAINY SEASON, ON ANY DAY WHEN THE NATIONAL WEATHER SERVICE FORECAST IS A CHANCE OF RAIN OF 30 PERCENT OR GREATER WITHIN THE NEXT 24 HOURS, STORM WATER BMP'S REFERENCED OR DETAILED IN PRMD'S BMP GUIDE SHALL BE IMPLEMENTED AND FUNCTIONAL ON THE SITE TO PREVENT SOIL AND OTHER POLLUTANT DISCHARGES. AT ALL OTHER TIMES, BMP'S SHOULD BE STORED ON SITE IN PREPARATION FOR INSTALLATION PRIOR TO RAIN EVENTS.
9. EROSION PREVENTION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED BY THE PROPERTY OWNER BEFORE FORECASTED STORM EVENTS AND AFTER STORM EVENTS TO ENSURE BMP'S ARE FUNCTIONING PROPERLY. EROSION PREVENTION AND SEDIMENT CONTROL BMP'S THAT HAVE FAILED OR ARE NO LONGER EFFECTIVE SHALL BE PROMPTLY REPLACED. EROSION PREVENTION AND SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
10. THE LIMITS OF GRADING SHALL BE DEFINED AND MARKED ON SITE TO PREVENT DAMAGE TO SURROUNDING TREES AND OTHER VEGETATION. PRESERVATION OF EXISTING VEGETATION SHALL OCCUR TO THE MAXIMUM EXTENT PRACTICABLE. ANY EXISTING VEGETATION WITHIN THE LIMITS OF GRADING THAT IS TO REMAIN UNDISTURBED BY THE WORK SHALL BE IDENTIFIED AND PROTECTED FROM DAMAGE BY MARKING, FENCING, OR OTHER MEASURES.
11. CHANGES TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN MAY BE MADE TO RESPOND TO FIELD CONDITIONS IF THE ALTERNATIVE BMP'S ARE EQUIVALENT OR MORE PROTECTIVE THAN THE BMP'S SHOWN ON THE APPROVED PLANS. ALTERNATIVE BMP'S ARE SUBJECT TO REVIEW AND APPROVAL BY PRMD STAFF.
12. DISCHARGES OF POTENTIAL POLLUTANTS FROM CONSTRUCTION SITES SHALL BE PREVENTED USING SOURCE CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT, TRASH, NUTRIENTS, PATHOGENS, PETROLEUM HYDROCARBONS, METALS, CONCRETE, CEMENT, ASPHALT, LIME, PAINT, STAINS, GLUES, WOOD PRODUCTS, PESTICIDES, HERBICIDES, CHEMICALS, HAZARDOUS WASTE, SANITARY WASTE, VEHICLE OR EQUIPMENT WASH WATER, AND CHLORINATED WATER.
13. ENTRANCE(S) TO THE CONSTRUCTION SITE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF POTENTIAL POLLUTANTS OFFSITE. POTENTIAL POLLUTANTS DEPOSITED ON PAVED AREAS WITHIN THE COUNTY RIGHT-OF-WAY, SUCH AS ROADWAYS AND SIDEWALKS, SHALL BE PROPERLY DISPOSED OF AT THE END OF EACH WORKING DAY OR MORE FREQUENTLY AS NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING CONSTRUCTION VEHICLES LEAVING THE SITE ON A DAILY BASIS TO PREVENT DUST, SILT, AND DIRT FROM BEING RELEASED OR TRACKED OFFSITE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AT THE END OF EACH WORKING DAY OR MORE OFTEN AS NECESSARY.
14. ALL DISTURBED AREAS SHALL BE PROTECTED BY USING EROSION PREVENTION BMP'S TO THE MAXIMUM EXTENT PRACTICABLE, SUCH AS ESTABLISHING VEGETATION COVERAGE, HYDROSEEDING, STRAW MULCH, GEOTEXTILES, PLASTIC COVERS, BLANKETS OR MATS. TEMPORARY REVEGETATION SHALL BE INSTALLED AS SOON AS PRACTICAL AFTER VEGETATION REMOVAL BUT IN ALL CASES PRIOR TO OCTOBER 1. PERMANENT REVEGATATION OR LANDSCAPING SHALL BE INSTALLED PRIOR TO FINAL INSPECTION.
15. WHENEVER IT IS NOT POSSIBLE TO USE EROSION PREVENTION BMP'S ON EXPOSED SLOPES, SEDIMENT CONTROL BMP'S SUCH AS FIBER ROLLS AND SILT FENCES SHALL BE INSTALLED TO PREVENT SEDIMENT MIGRATION. FIBER ROLLS AND SILT FENCES SHALL BE TRENCHED AND KEYED INTO THE SOIL AND INSTALLED ON CONTOUR. SILT FENCES SHALL BE INSTALLED APPROXIMATELY 2 TO 5 FEET FROM TOE OF SLOPE.
16. HYDROSEEDING SHALL BE CONDUCTED IN A THREE STEP PROCESS. FIRST, EVENLY APPLY SEED MIX AND FERTILIZER TO THE EXPOSED SLOPE. SECOND, EVENLY APPLY MULCH OVER THE SEED AND FERTILIZER. THIRD, STABILIZE THE MULCH IN PLACE. AN EQUIVALENT SINGLE STEP PROCESS, WITH SEED, FERTILIZER, WATER, AND BONDED FIBERS IS ACCEPTABLE.

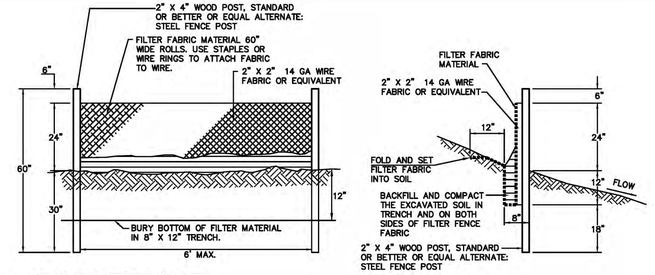
    APPLICATIONS SHALL BE BROADCASTED MECHANICALLY OR MANUALLY AT THE RATES SPECIFIED BELOW. SEED MIX AND FERTILIZER SHALL BE WORKED INTO THE SOIL BY ROLLING OR TAMPING. IF STRAW IS USED AS MULCH, STRAW SHALL BE DERIVED FROM WHEAT, RICE, OR BARLEY AND BE APPROXIMATELY SIX TO EIGHT INCHES IN LENGTH. STABILIZATION OF MULCH SHALL BE DONE HYDRAULICALLY BY APPLYING AN EMULSION OR MECHANICALLY BY CRIMPING OR PUNCHING THE MULCH INTO THE SOIL. EQUIVALENT METHODS AND MATERIALS MAY BE USED ONLY IF THEY ADEQUATELY PROMOTE VEGETATION GROWTH AND PROTECT EXPOSED SLOPES.

MATERIALS	APPLICATION RATE (POUNDS PER ACRE)
SEED MIX	
Bromus mollis (BLANDO BROME)	40
Trifolium hirtum (HYKON ROSE CLOVER)	20
FERTILIZER	
16-20-0 & 15% SULPHUR	500
MULCH	
STRAW	4000
HYDRAULIC STABILIZING*	
M-BINDER OR SENTINEL EQUIVALENT MATERIAL	75-100 PER MANUFACTURER

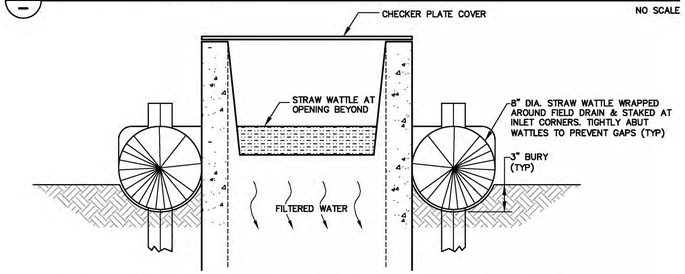
*NON-ASPHALTIC, DERIVED FROM PLANTS

HYDROSEED AREA

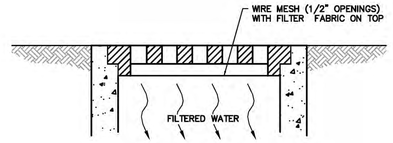
17. DUST CONTROL SHALL BE PROVIDED BY CONTRACTOR DURING ALL PHASES OF CONSTRUCTION.
18. STORM DRAIN INLETS SHALL BE PROTECTED FROM POTENTIAL POLLUTANTS UNTIL DRAINAGE CONVEYANCE SYSTEMS ARE FUNCTIONAL AND CONSTRUCTION HAS BEEN COMPLETED.
19. ENERGY DISSIPATERS SHALL BE INSTALLED AT STORM DRAIN OUTLETS WHICH MAY CONVEY EROSIVE STORM WATER FLOW.
20. SOIL, MATERIAL STOCKPILES, AND FERTILIZING MATERIAL SHALL BE PROPERLY PROTECTED WITH PLASTIC COVERS OR EQUIVALENT BMP'S TO MINIMIZE SEDIMENT AND POLLUTANT TRANSPORT FROM THE CONSTRUCTION SITE.
21. SOLID WASTE, SUCH AS TRASH, DISCARDED BUILDING MATERIALS AND DEBRIS, SHALL BE PLACED IN DESIGNATED COLLECTION AREAS OR CONTAINERS. THE CONSTRUCTION SITE SHALL BE CLEARED OF SOLID WASTE DAILY OR AS NECESSARY. REGULAR REMOVAL AND PROPER DISPOSAL SHALL BE COORDINATED BY THE CONTRACTOR.
22. A CONCRETE WASHOUT AREA SHALL BE DESIGNATED TO CLEAN CONCRETE TRUCKS AND TOOLS. AT NO TIME SHALL CONCRETE PRODUCTS AND WASTE BE ALLOWED TO ENTER COUNTY WATERWAYS SUCH AS CREEKS OR STORM DRAINS. NO WASHOUT OF CONCRETE, MORTAR MIXERS, OR TRUCKS SHALL BE ALLOWED ON SOIL. CONCRETE WASTE SHALL BE PROPERLY DISPOSED.
23. PROPER APPLICATION, CLEANING, AND STORAGE OF POTENTIALLY HAZARDOUS MATERIALS, SUCH AS PAINTS AND CHEMICALS, SHALL BE CONDUCTED TO PREVENT THE DISCHARGE OF POLLUTANTS.
24. TEMPORARY RESTROOMS AND SANITARY FACILITIES SHALL BE LOCATED AND MAINTAINED DURING CONSTRUCTION ACTIVITIES TO PREVENT THE DISCHARGE OF POLLUTANTS.
25. APPROPRIATE VEHICLE STORAGE, FUELING, MAINTENANCE, AND CLEANING AREAS SHALL BE DESIGNATED AND MAINTAINED TO PREVENT DISCHARGE OF POLLUTANTS.



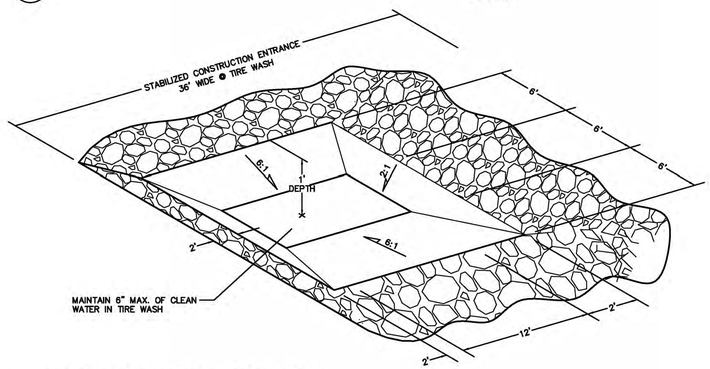
A — SILT FENCE — NO SCALE



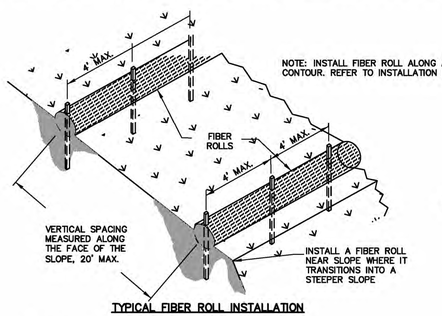
B — STRAW WATTLE FOR FIELD DRAINS — NO SCALE



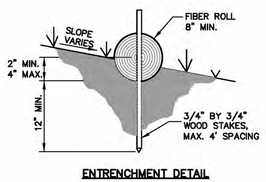
C — SILT SOCK FOR DROP INLETS — NO SCALE



D — TRUCK TIRE WASH — NO SCALE



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
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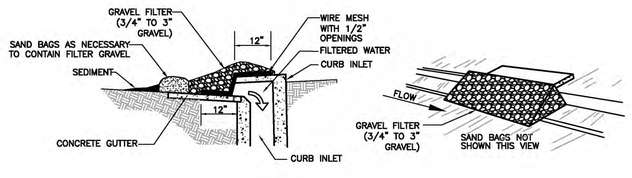
E — STRAW WATTLES — NO SCALE



F — FILTER DAM FOR CURB INLETS — NO SCALE

REVISIONS

NO.	REVISION	DATE	R.C.E.

ANDREW BORDESSA RCE 34366 — DATE

CIVIL DESIGN CONSULTANTS, INC.
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EROSION CONTROL NOTES AND DETAILS
3496 SANTA ROSA AVENUE
SANTA ROSA, CALIFORNIA
APN 134-132-015
JUNE 2019

JOB NO. 18-138

SHEET NO. 4 OF 4 SHEETS

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A-1: View east showing entrance driveway and residence.

A-2: View east showing disturbed areas and hardscape.

A-3: View east showing large seasonal wetland

A-4: View west showing large seasonal wetland.

A-5: View east showing non-native grassland at NE corner of site.

A-6: View south near center of site showing typical habitats.

Los Pinos Apartments
3496 Santa Rosa Avenue
Santa Rosa, CA

Photos from 4.4.19

WIEMEYER ECOLOGICAL SCIENCES
4000 MONTGOMERY DRIVE, SUITE L-5
SANTA ROSA, CA 95405
(707) 573-1770

APPENDIX A
SPECIAL STATUS PLANT SPECIES

APPENDIX A: SPECIAL-STATUS PLANT SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Allium peninsulare var. franciscanum	Franciscan onion	1B.2	G5T1	S1	None	None	Cismontane woodland, Valley and foothill grassland
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	1B.1	G5T1	S1	None	FE	Marshes and swamps (freshwater), Riparian scrub
Amorpha californica var. napensis	Napa false indigo	1B.2	G4T2	S2	None	None	Broadleafed upland forest (openings), Chaparral, Cismontane woodland
Amsinckia lunaris	bent-flowered fiddleneck	1B.2	G2G3	S2S3	None	None	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland
Anomobryum julaceum	slender silver moss	4.2	G5?	S2	None	None	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest
Arctostaphylos densiflora	Vine Hill manzanita	1B.1	G1	S1	CE	None	Chaparral (acid marine sand)
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	1B.1	G3T1	S1	None	None	Chaparral (rhyolitic), Cismontane woodland
Astragalus breweri	Brewer's milk-vetch	4.2	G3	S3	None	None	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland (open, often gravelly)
Astragalus claranus	Clara Hunt's milk-vetch	1B.1	G1	S1	CT	FE	Chaparral (openings), Cismontane woodland, Valley and foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	1B.2	G2	S2	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Blennosperma bakeri	Sonoma sunshine	1B.1	G1	S1	CE	FE	Valley and foothill grassland (mesic), Vernal pools
Brodiaea leptandra	narrow-anthered brodiaea	1B.2	G3?	S3?	None	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland

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CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Calamagrostis bolanderi	Bolander's reed grass	4.2	G4	S4	None	None	Bogs and fens, Broadleafed upland forest, Closed-cone coniferous forest, Coastal scrub, Meadows and seeps (mesic), Marshes and swamps (freshwater), North Coast coniferous forest
Calamagrostis crassiglumis	Thurber's reed grass	2B.1	G3Q	S2	None	None	Coastal scrub (mesic), Marshes and swamps (freshwater)
Calamagrostis ophitidis	serpentine reed grass	4.3	G3	S3	None	None	Chaparral (open, often north-facing slopes), Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland
Calandrinia breweri	Brewer's calandrinia	4.2	G4	S4	None	None	Chaparral, Coastal scrub
Calochortus uniflorus	pink star-tulip	4.2	G4	S4	None	None	Coastal prairie, Coastal scrub, Meadows and seeps, North Coast coniferous forest
Calystegia collina ssp. oxyphylla	Mt. Saint Helena morning-glory	4.2	G4T3	S3	None	None	Chaparral, Lower montane coniferous forest, Valley and foothill grassland
Campanula californica	swamp harebell	1B.2	G3	S3	None	None	Bogs and fens, Closed-cone coniferous forest, Coastal prairie, Meadows and seeps, Marshes and swamps (freshwater), North Coast coniferous forest
Castilleja ambigua var. ambigua	johnny-nip	4.2	G4T5	S4	None	None	Coastal bluff scrub, Coastal prairie, Coastal scrub, Marshes and swamps, Valley and foothill grassland, Vernal pools margins
Castilleja uliginosa	Pitkin Marsh paintbrush	1A	GXQ	SX	CE	None	Marshes and swamps (freshwater)
Ceanothus confusus	Rincon Ridge ceanothus	1B.1	G1	S1	None	None	Closed-cone coniferous forest, Chaparral, Cismontane woodland
Ceanothus divergens	Calistoga ceanothus	1B.2	G2	S2	None	None	Chaparral (serpentinite or volcanic, rocky)
Ceanothus foliosus var. vineatus	Vine Hill ceanothus	1B.1	G3T1	S1	None	None	Chaparral
Ceanothus gloriosus var. exaltatus	glory brush	4.3	G4T4	S4	None	None	Chaparral

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CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Ceanothus purpureus	holly-leaved ceanothus	1B.2	G2	S2	None	None	Chaparral, Cismontane woodland
Ceanothus sonomensis	Sonoma ceanothus	1B.2	G2	S2	None	None	Chaparral (sandy, serpentinite or volcanic)
Centromadia parryi ssp. parryi	pappose tarplant	1B.2	G3T2	S2	None	None	Chaparral, Coastal prairie, Meadows and seeps, Marshes and swamps (coastal salt), Valley and foothill grassland (vernally mesic)
Chorizanthe valida	Sonoma spineflower	1B.1	G1	S1	CE	FE	Coastal prairie (sandy)
Clarkia breweri	Brewer's clarkia	4.2	G4	S4	None	None	Chaparral, Cismontane woodland, Coastal scrub
Clarkia imbricata	Vine Hill clarkia	1B.1	G1	S1	CE	FE	Chaparral, Valley and foothill grassland
Cordylanthus tenuis ssp. brunneus	serpentine bird's-beak	4.3	G4G5T3	S3	None	None	Closed-cone coniferous forest, Chaparral, Cismontane woodland
Cordylanthus tenuis ssp. capillaris	Pennell's bird's-beak	1B.2	G4G5T1	S1	CR	FE	Closed-cone coniferous forest, Chaparral
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	2B.2	G5T4T5	SH	None	None	Marshes and swamps (freshwater)
Cypripedium montanum	mountain lady's-slipper	4.2	G4	S4	None	None	Broadleafed upland forest, Cismontane woodland, Lower montane coniferous forest, North Coast coniferous forest
Delphinium luteum	golden larkspur	1B.1	G1	S1	CR	FE	Chaparral, Coastal prairie, Coastal scrub
Downingia pusilla	dwarf downingia	2B.2	GU	S2	None	None	Valley and foothill grassland (mesic), Vernal pools
Erigeron biolettii	streamside daisy	3	G3?	S3?	None	None	Broadleafed upland forest, Cismontane woodland, North Coast coniferous forest
Erigeron serpentinus	serpentine daisy	1B.3	G2	S2	None	None	Chaparral (serpentinite, seeps)
Eriophorum gracile	slender cottongrass	4.3	G5	S4	None	None	Bogs and fens, Meadows and seeps, Upper montane coniferous forest
Eryngium constancei	Loch Lomond button-celery	1B.1	G1	S1	CE	FE	Vernal pools

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CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Fritillaria liliacea	fragrant fritillary	1B.2	G2	S2	None	None	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland
Gilia capitata ssp. tomentosa	woolly-headed gilia	1B.1	G5T1	S1	None	None	Coastal bluff scrub, Valley and foothill grassland
Gratiola heterosepala	Boggs Lake hedge-hyssop	1B.2	G2	S2	CE	None	Marshes and swamps (lake margins), Vernal pools
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	1B.2	G5T1T2	S1S2	None	None	Valley and foothill grassland
Hesperevax caulescens	hogwallow starfish	4.2	G3	S3	None	None	Valley and foothill grassland (mesic, clay), Vernal pools (shallow)
Horkelia tenuiloba	thin-lobed horkelia	1B.2	G2	S2	None	None	Broadleafed upland forest, Chaparral, Valley and foothill grassland
Hosackia gracilis	harlequin lotus	4.2	G3G4	S3	None	None	Broadleafed upland forest, Coastal bluff scrub, Closed-cone coniferous forest, Cismontane woodland, Coastal prairie, Coastal scrub, Meadows and seeps, Marshes and swamps, North Coast coniferous forest, Valley and foothill grassland
Iris longipetala	coast iris	4.2	G3	S3	None	None	Coastal prairie, Lower montane coniferous forest, Meadows and seeps
Lasthenia burkei	Burke's goldfields	1B.1	G1	S1	CE	FE	Meadows and seeps (mesic), Vernal pools
Lasthenia californica ssp. bakeri	Baker's goldfields	1B.2	G3T1	S1	None	None	Closed-cone coniferous forest (openings), Coastal scrub, Meadows and seeps, Marshes and swamps
Lasthenia conjugens	Contra Costa goldfields	1B.1	G1	S1	None	FE	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools
Layia septentrionalis	Colusa layia	1B.2	G2	S2	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Legenere limosa	legenere	1B.1	G2	S2	None	None	Vernal pools

APPENDIX A: SPECIAL-STATUS PLANT SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Leptosiphon acicularis	bristly leptosiphon	4.2	G4?	S4?	None	None	Chaparral, Cismontane woodland, Coastal prairie, Valley and foothill grassland
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	G3	S3	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Lessingia hololeuca	woolly-headed lessingia	3	G3?	S3?	None	None	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland
Lilium pardalinum ssp. pitkinense	Pitkin Marsh lily	1B.1	G5T1	S1	CE	FE	Cismontane woodland, Meadows and seeps, Marshes and swamps (freshwater)
Lilium rubescens	redwood lily	4.2	G3	S3	None	None	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest
Limnanthes vinculans	Sebastopol meadowfoam	1B.1	G1	S1	CE	FE	Meadows and seeps, Valley and foothill grassland, Vernal pools
Lomatium repostum	Napa lomatium	4.3	G3	S3	None	None	Chaparral, Cismontane woodland
Lupinus sericatus	Cobb Mountain lupine	1B.2	G2?	S2?	None	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest
Micropus amphibolus	Mt. Diablo cottonweed	3.2	G3G4	S3S4	None	None	Broadleafed upland forest, Chaparral, Cismontane woodland, Valley and foothill grassland
Microseris paludosa	marsh microseris	1B.2	G2	S2	None	None	Closed-cone coniferous forest, Cismontane woodland, Coastal scrub, Valley and foothill grassland
Monardella viridis	green monardella	4.3	G3	S3	None	None	Broadleafed upland forest, Chaparral, Cismontane woodland
Navarretia cotulifolia	cotula navarretia	4.2	G4	S4	None	None	Chaparral, Cismontane woodland, Valley and foothill grassland
Navarretia heterandra	Tehama navarretia	4.3	G4	S4	None	None	Valley and foothill grassland (mesic), Vernal pools

APPENDIX A: SPECIAL-STATUS PLANT SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Navarretia leucocephala ssp. bakeri	Baker's navarretia	1B.1	G4T2	S2	None	None	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	1B.2	G4T1	S1	CE	FE	Vernal pools (volcanic ash flow)
Penstemon newberryi var. sonomensis	Sonoma beardtongue	1B.3	G4T2	S2	None	None	Chaparral (rocky)
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	4.2	G5T3T4	S3S4	None	None	Broadleafed upland forest, Chaparral, Coastal prairie, Valley and foothill grassland, Vernal pools
Plagiobothrys strictus	Calistoga popcornflower	1B.1	G1	S1	CT	FE	Meadows and seeps, Valley and foothill grassland, Vernal pools
Pleuropogon hooverianus	North Coast semaphore grass	1B.1	G2	S2	CT	None	Broadleafed upland forest, Meadows and seeps, North Coast coniferous forest
Pleuropogon refractus	nodding semaphore grass	4.2	G4	S4	None	None	Lower montane coniferous forest, Meadows and seeps, North Coast coniferous forest, Riparian forest
Poa napensis	Napa blue grass	1B.1	G1	S1	CE	FE	Meadows and seeps, Valley and foothill grassland
Potentilla uliginosa	Cunningham Marsh cinquefoil	1A	GH	SH	None	None	Marshes and swamps
Puccinellia simplex	California alkali grass	1B.2	G3	S2	None	None	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools
Ranunculus lobbii	Lobb's aquatic buttercup	4.2	G4	S3	None	None	Cismontane woodland, North Coast coniferous forest, Valley and foothill grassland, Vernal pools
Rhynchospora alba	white beaked-rush	2B.2	G5	S2	None	None	Bogs and fens, Meadows and seeps, Marshes and swamps (freshwater)
Rhynchospora californica	California beaked-rush	1B.1	G1	S1	None	None	Bogs and fens, Lower montane coniferous forest, Meadows and seeps (seeps), Marshes and swamps (freshwater)

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USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNPS - March 2019

Scientific Name	Common Name	Rare Plant Rank	Global Rank	State Rank	State List	Federal List	Habitat
Rhynchospora capitellata	brownish beaked-rush	2B.2	G5	S1	None	None	Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Upper montane coniferous forest
Rhynchospora globularis	round-headed beaked-rush	2B.1	G4	S1	None	None	Marshes and swamps (freshwater)
Sidalcea hickmanii ssp. napensis	Napa checkerbloom	1B.1	G3T1	S1	None	None	Chaparral
Sidalcea oregana ssp. valida	Kenwood Marsh checkerbloom	1B.1	G5T1	S1	CE	FE	Marshes and swamps (freshwater)
Trifolium amoenum	two-fork clover	1B.1	G1	S1	None	FE	Coastal bluff scrub, Valley and foothill grassland (sometimes serpentinite)
Trifolium buckwestiorum	Santa Cruz clover	1B.1	G2	S2	None	None	Broadleafed upland forest, Cismontane woodland, Coastal prairie
Trifolium hydrophilum	saline clover	1B.2	G2	S2	None	None	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), Vernal pools
Triquetrella californica	coastal triquetrella	1B.2	G2	S2	None	None	Coastal bluff scrub, Coastal scrub
Viburnum ellipticum	oval-leaved viburnum	2B.3	G4G5	S3?	None	None	Chaparral, Cismontane woodland, Lower montane coniferous forest

APPENDIX B
SPECIAL STATUS ANIMAL SPECIES

APPENDIX B: SPECIAL-STATUS ANIMAL SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNDDB - March 2019

Scientific Name	Common Name	Federal List	State List	Global Rank	State Rank	Dept. Fish and Wildlife Rank	Habitat
Accipiter striatus	sharp-shinned hawk	None	None	G5	S4	Watch List	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland
Agelaius tricolor	tricolored blackbird	None	Candidate Endangered	G2G3	S1S2	Special Concern	Freshwater marsh | Marsh & swamp | Swamp | Wetland
Ambystoma californiense	California tiger salamander	Threatened	Threatened	G2G3	S2S3	Watch List	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland
Ammodramus savannarum	grasshopper sparrow	None	None	G5	S3	Special Concern	Valley & foothill grassland
Andrena blennospermatis	Blennosperma vernal pool andrenid bee	None	None	G2	S2	none	Vernal pool
Antrozous pallidus	pallid bat	None	None	G5	S3	Special Concern	Chaparral | Coastal scrub | Desert wash | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Riparian woodland | Sonoran desert scrub | Upper montane coniferous forest | Valley & foothill grassland
Aquila chrysaetos	golden eagle	None	None	G5	S3	Fully Protected | Watch List	Broadleaved upland forest | Cismontane woodland | Coastal prairie | Great Basin grassland | Great Basin scrub | Lower montane coniferous forest | Pinon & juniper woodlands | Upper montane coniferous forest | Valley & foothill grassland
Ardea herodias	great blue heron	None	None	G5	S4	none	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland
Athene cunicularia	burrowing owl	None	None	G4	S3	Special Concern	Coastal prairie | Coastal scrub | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Sonoran desert scrub | Valley & foothill grassland

APPENDIX B: SPECIAL-STATUS ANIMAL SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNDDB - March 2019

Scientific Name	Common Name	Federal List	State List	Global Rank	State Rank	Dept. Fish and Wildlife Rank	Habitat
Bombus caliginosus	obscure bumble bee	None	None	G4?	S1S2	none	
Bombus crotchii	Crotch bumble bee	None	None	G3G4	S1S2	none	
Bombus occidentalis	western bumble bee	None	None	G2G3	S1	none	
Buteo regalis	ferruginous hawk	None	None	G4	S3S4	Watch List	Great Basin grassland | Great Basin scrub | Pinon & juniper woodlands | Valley & foothill grassland
Caecidotea tomalensis	Tomales isopod	None	None	G2	S2S3	none	Aquatic | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	Endangered	G5T2T3	S1	none	Riparian forest
Corynorhinus townsendii	Townsend's big-eared bat	None	None	G3G4	S2	Special Concern	Broadleaved upland forest | Chaparral | Chenopod scrub | Great Basin grassland | Great Basin scrub | Joshua tree woodland | Lower montane coniferous forest | Meadow & seep | Mojavean desert scrub | Riparian forest | Riparian woodland | Sonoran desert scrub | Sonoran thorn woodland | Upper montane coniferous forest | Valley & foothill grassland
Coturnicops noveboracensis	yellow rail	None	None	G4	S1S2	Special Concern	Freshwater marsh | Meadow & seep
Dicamptodon ensatus	California giant salamander	None	None	G3	S2S3	Special Concern	Aquatic | Meadow & seep | North coast coniferous forest | Riparian forest
Elanus leucurus	white-tailed kite	None	None	G5	S3S4	Fully Protected	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland

APPENDIX B: SPECIAL-STATUS ANIMAL SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNDDB - March 2019

Scientific Name	Common Name	Federal List	State List	Global Rank	State Rank	Dept. Fish and Wildlife Rank	Habitat
Emys marmorata	western pond turtle	None	None	G3G4	S3	Special Concern	Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland
Eremophila alpestris actia	California horned lark	None	None	G5T4Q	S4	Watch List	Marine intertidal & splash zone communities | Meadow & seep
Erethizon dorsatum	North American porcupine	None	None	G5	S3	none	Broadleaved upland forest | Cismontane woodland | Closed-cone coniferous forest | Lower montane coniferous forest | North coast coniferous forest | Upper montane coniferous forest
Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	G4T4	S3S4	Fully Protected	
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	None	None	G2?	S2?	none	Aquatic | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters
Hydroporus leechi	Leech's skyline diving beetle	None	None	G1?	S1?	none	Aquatic
Hysterocarpus traski pomo	Russian River tule perch	None	None	G5T4	S4	Special Concern	Aquatic | Klamath/North coast flowing waters
Lasiurus blossevillii	western red bat	None	None	G5	S3	Special Concern	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland
Lasiurus cinereus	hoary bat	None	None	G5	S4	none	Broadleaved upland forest | Cismontane woodland | Lower montane coniferous forest | North coast coniferous forest

APPENDIX B: SPECIAL-STATUS ANIMAL SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNDDB - March 2019

Scientific Name	Common Name	Federal List	State List	Global Rank	State Rank	Dept. Fish and Wildlife Rank	Habitat
Lavinia symmetricus navarroensis	Navarro roach	None	None	G4T1T2	S2S3	Special Concern	Aquatic | Sacramento/San Joaquin flowing waters
Linderiella occidentalis	California linderiella	None	None	G2G3	S2S3	none	Vernal pool
Myotis thysanodes	fringed myotis	None	None	G4	S3	none	
Myotis volans	long-legged myotis	None	None	G5	S3	none	Upper montane coniferous forest
Myotis yumanensis	Yuma myotis	None	None	G5	S4	none	Lower montane coniferous forest | Riparian forest | Riparian woodland | Upper montane coniferous forest
Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	Endangered	Endangered	G4	S2?	none	Aquatic
Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	Threatened	None	G5T2T3Q	S2S3	none	Aquatic | Sacramento/San Joaquin flowing waters
Pandion haliaetus	osprey	None	None	G5	S4	Watch List	Riparian forest
Rana boylii	foothill yellow-legged frog	None	Candidate Threatened	G3	S3	Special Concern	Aquatic | Chaparral | Cismontane woodland | Coastal scrub | Klamath/North coast flowing waters | Lower montane coniferous forest | Meadow & seep | Riparian forest | Riparian woodland | Sacramento/San Joaquin flowing waters

APPENDIX B: SPECIAL-STATUS ANIMAL SPECIES LIST

USGS 9-QUADRANGLE MAPS- *Santa Rosa, Healdsburg, Mark West Springs, Calistoga, Sebastopol, Kenwood, Two Rock, Cotati, Glen Ellen*

CNDDB - March 2019

Scientific Name	Common Name	Federal List	State List	Global Rank	State Rank	Dept. Fish and Wildlife Rank	Habitat
Rana draytonii	California red-legged frog	Threatened	None	G2G3	S2S3	Special Concern	Aquatic | Artificial flowing waters | Artificial standing waters | Freshwater marsh | Marsh & swamp | Riparian forest | Riparian scrub | Riparian woodland | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters | South coast flowing waters | South coast standing waters | Wetland
Riparia riparia	bank swallow	None	Threatened	G5	S2	none	Riparian scrub | Riparian woodland
Syncaris pacifica	California freshwater shrimp	Endangered	Endangered	G2	S2	none	Aquatic | Sacramento/San Joaquin flowing waters
Taricha rivularis	red-bellied newt	None	None	G4	S2	Special Concern	Broadleaved upland forest | North coast coniferous forest | Redwood | Riparian forest | Riparian woodland

APPENDIX B: SPECIAL-STATUS ANIMAL SPECIES LIST

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CNDDB - March 2019

Scientific Name	Common Name	Federal List	State List	Global Rank	State Rank	Dept. Fish and Wildlife Rank	Habitat
Taxidea taxus	American badger	None	None	G5	S3	Special Concern	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland | Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie | Coastal scrub | Desert dunes | Desert wash | Freshwater marsh | Great Basin grassland | Great Basin scrub | Interior dunes | Ione formation | Joshua tree woodland | Limestone | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Mojavean desert scrub | Montane dwarf scrub | North coast coniferous forest | Oldgrowth | Pavement plain | Redwood | Riparian forest | Riparian scrub | Riparian woodland | Salt marsh | Sonoran desert scrub | Sonoran thorn woodland | Ultramafic | Upper montane coniferous forest | Upper Sonoran scrub | Valley & foothill grassland

APPENDIX C
PLANT INVENTORY LIST

Appendix C: Plant Inventory List
3496 Santa Rosa Avenue, Santa Rosa, CA

FAMILY	SPECIES NAME	COMMON NAME	NATIVE=N INTRODUCED=I
Alismataceae			
	Alisma aquatica-plantago	water plantain	N
Apiaceae			
	Daucus carota	wild carrot	I
	Eryngium aristulatum	California button celery	N
Araliaceae			
	Hedera helix	English ivy	I

FAMILY	SPECIES NAME	COMMON NAME	NATIVE=N INTRODUCED=I
Asteraceae			
	Achellia millefolium	yarrow	N
	Anthemis cotula	dog fennel	I
	Artemesia douglasiana	mugwort	I
	Baccharis pilularis	coyote brush	N
	Centaurea solstitianus	yellow star thistle	I
	Chicorum intybus	chicory	I
	Cirsium vulgare	bull thistle	I
	Gnaphalium californicum	California cudweed	N
	Hemizonia congesta spp. luzulifolia	hayfield tarweed	N
	Hypocharis radicata	rough cat's ear	I
	Lactuca saligna	willowleaf lettuce	N
	Lactuca serriola	prickly lettuce	I
	Lasthenia glaberrima	smooth goldfield	N
	Leontodon taraxocoides	hawkbit	I
	Matricaria matricarioides	pineapple weed	I
	Picris echioides	bristly ox tongue	I
	Senecio vulgaris	common groundsel	I
	Silybum marianum	milk thistle	I
	Sonchus oleraceus	sow thistle	I
	Xanthium strumarium v. canaden	cocklebur	I
Caprifoliaceae			
	Symphoricarpos albus	snowberry	N
Caryophyllaceae			
	Cerastrium viscosum	chickweed	I
Chenopodiaceae			
	Atriplex patula	fat hen	I
	Chenopodium album	lambs quarters	I
Convolvulaceae			
	Convolvulus arvensis	bindweed	I
Cruciferae			
	Brassica rapa	field mustard	I
	Lepidium nitidum	pepper grass	N
	Raphanus sativus	wild radish	I

FAMILY	SPECIES NAME	COMMON NAME	NATIVE=N INTRODUCED=I
Cyperaceae			
	Cyperus eragrostis	nut-sedge	I
	Eleocharis macrostachya	creeping spiked sedge	N
Euphorbiaceae			
	Eremocarpus setigerus	turkey mullen	N
Fabaceae			
	Acacia dealbata	silver wattle	I
	Lathyrus odoratus	sweet pea	I
	Lotus corniculatus	birdsfoot trefoil	I
	Lotus purshianus	Spanish lotus	N
	Medicago polymorpha	bur-clover	I
	Trifolium subterraneum	subterranean clover	I
	Trifolium variegatum	white-tip clover	N
	Vicia sativa	spring vetch	I
	Vicia villosa	winter vetch	I
Fagaceae			
	Quercus agrifolia	coast live oak	N
	Quercus lobata	valley oak	N
Gentianaceae			
	Centaurium erythraea	common centaury	N
Geraniaceae			
	Erodium cicutarium	redstem filaree	I
	Erodium moschatum	whitestem filaree	I
	Geranium dissectum	wild geranium	I
	Geranium molle	dove's foot geranium	I
Juglandaceae			
	Juglans regia	English walnut	I
Juncaceae			
	Juncus bufonius	toadrush	N
	Juncus phaeocephalus	brown head rush	N
	Juncus tenuis	slender rush	N
Lamiaceae			
	Mentha arvensis	field mint	N
	Mentha pelugium	pennyroyal	I

FAMILY	SPECIES NAME	COMMON NAME	NATIVE=N INTRODUCED=I
Liliaceae			
	Allium unifolium	wild onion	N
	Brodiaea elegans	harvest brodiaea	N
Lythraceae			
	Lythrum hyssopifolia	hyssop loosestrife	I
Malvaceae			
	Malva rotundifolia	mallow	I
Onagaraceae			
	Camissonia ovatum	sun cup	N
	Epilobium ciliatum	willow herb	N
Plantaginaceae			
	Kickxia elatine	sharp-leaved fluellin	I
	Plantago lanceolata	English plantain	I
Poaceae			
	Avena barbata	slender wild oat	I
	Avena fatua	wild oat	I
	Bromus diandrus	rip-gut brome	I
	Bromus mollis	soft chess	I
	Cynodon dactylon	bermuda grass	I
	Danthonia californicus	California oatgrass	N
	Festuca perennis	perennial rye grass	I
	Hordeum brachyantherum	meadow barley	N
	Hordeum marinum spp. gussoneanum	Mediterranean barley	I
	Hordeum murinum ssp. leporinum	foxtail barley	I
	Phalaris aquatica	Harding grass	I
	Pleuropogon californicus	semaphore grass	N
	Poa annua	annual bluegrass	I
	Polypogon monspeliensis	rabbitsfoot grass	I
	Vulpia bromoides	six-weeks bromegrass	I
Polemoniaceae			
	Navarretia squarrosa	skunkweed	N

FAMILY	SPECIES NAME	COMMON NAME	NATIVE=N INTRODUCED=I
Polygonaceae			
	Polygonum aviculare	common knotweed	I
	Rumex acetosella	sheep sorrel	I
	Rumex crispus	curly dock	I
Primulaceae			
	Anagallis arvensis	scarlet pimpernel	I
Ranunculaceae			
	Ranunculus californicus	California buttercup	N
	Ranunculus muricatus	spiny buttercup	I
Rosaceae			
	Prunus sp.	native plum	I
	Rubus armeniacus	Himalayan berry	I
Rubiaceae			
	Galium aparine	cleavers	I
Salicaceae			
	Populus fremontii	Fremont cottonwood	N
	Salix lasiolepis	arroyo willow	N
Scrophulariaceae			
	Parentucellia viscosa	parentucella	I