

**ARMET RESIDENCE, 625 TEMPLETON
ROAD PROJECT, SAN LUIS OBISPO
COUNTY**

GRAD2022-00120 | MAJOR GRADING PERMIT (APN 034-131-060)

BIOLOGICAL RESOURCES ASSESSMENT

August 17, 2023



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As a County-approved biologist and lead investigator, I hereby certify that this Biological Resources Assessment was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visits described in this report associated with this study.



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August 17, 2023

Date

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ARMET RESIDENCE, 625 TEMPLETON ROAD PROJECT (APN 034-131-060)

BIOLOGICAL RESOURCES ASSESSMENT

1.0 EXECUTIVE SUMMARY

The Armet Residence, 625 Templeton Road Project (project), proposes a new Single-Family Residence and an Accessory Dwelling Unit (ADU). The total area proposed for development is approximately 2.06 acres. This includes a proposed 4,853sf 2-story single family residence with an attached 4-car garage, porches, wine cellar, and new septic system. The total property is approximately 76.65 acres.

The site is off Templeton Road, south of Moss Lane in the community of Templeton, San Luis Obispo County, California, (APN: 034-131-060). The Biological Study Area (BSA) subject to this Biological Resources Assessment (BRA) encompasses approximately 22.63 acres, which includes a minimum of 300-foot buffer adjacent to the proposed project footprint, including the access road area. This BSA boundary was developed to include adjacent oak woodland and potential nesting bird habitat in accordance with the 2016 San Luis Obispo County Guidelines for Biological Resources Assessments. The Salinas River runs along the western property line, approximately 1,100 feet west of the BSA.

The BSA currently supports a mosaic of non-native annual grassland and forbs, native oak woodland, and ruderal habitats. An existing culverted road crossing installed in February 2022 crosses an unnamed blueline drainage that is proposed to serve the residence and ADU. No new impacts are proposed to the drainage area as final road improvements will occur within the existing road footprint. Per County request, this BRA also includes an estimate of potential jurisdictional impacts that occurred during installation of the existing road crossing. The unnamed blueline drainage did not meet the Section 404 Clean Water Act (CWA) three-parameter jurisdictional wetland criteria, and as such is considered a potential non-wetland waters of the U.S.

Onsite oak woodland will remain intact around the constructed residence(s). Per the Tree Protection Plan (TPP) prepared for the project (Kokers, January 2023), up to eight (8) native oak trees may be subject to impacts resulting from compaction within or adjacent to the drip line and minor pruning (<15% drip line impact). No native tree removal is currently proposed for construction or for long-term vegetation (wildfire) maintenance. Potential impacts to Mixed Oak / Valley Oak Woodland are considered a potentially significant impact requiring mitigation (see Section 6.3 and Appendix C).

The search and review of the CNDDDB revealed 21 special-status wildlife species and 30 special-status plant species (and natural communities) with recorded occurrences within the approximately ten-mile search radius of the proposed project site. No formally-listed species are expected to occur onsite, and limited suitable habitat was detected for American badger and nesting birds within the project area. An appropriately timed floristic inventory and rare plant survey conducted in 2023 determined the site does not support any special-status plant species.

The conversion of non-native annual grassland and disturbed habitats could result in the displacement of common local wildlife and is considered to be a less than significant impact. Oak tree removal avoidance would accommodate continued foraging, roosting, and nesting habitat for birds. Locally common resident and migratory birds could use the site for breeding, foraging, and roosting that could be impacted by project construction. Mitigation to avoid potentially significant impacts on nesting birds and oak trees are recommended below in Section 6.3.

Based on the findings described in this BRA establishing the existing conditions setting of the proposed project site, and incorporation of the recommended mitigation measures in Section 6.3, implementation

of the proposed project would not result in any substantial adverse effects on biological, botanical, wetland habitat resources. Therefore, with mitigation measures incorporated into the project, direct and indirect project impacts on biological resources would be considered to be less than significant pursuant to the California Environmental Quality Act (CEQA).

2.0 INTRODUCTION AND PURPOSE

The project proposes residential development on a 76.65-acre parcel between Templeton Road and the Salinas River in the community of Templeton. The project would include the development of a primary residence and ADU and supporting roads and utilities. Access to the residential lots will be from existing paved and unpaved roadways that extend off Templeton Road. The BSA is currently undeveloped and supports a mosaic of non-native annual grassland and forb habitats and native oak woodland. Figures 1 through 3 provide a regional location map and existing conditions vegetation community's map. The proposed project would primarily impact non-native annual grassland habitat but could also result in impacts to adjacent oak woodland without implementation of appropriate protection measures as described below in Section 6.3.

Sage Institute, Inc. (SII) conducted the review of available background data, and biological and botanical field surveys on the project site on during multiple site visits from March 2023 to August 2023. The purpose of this biological resources assessment is to document existing conditions of the proposed project site and to evaluate the potential for any direct or indirect significant impacts on biological or wetland resources, or adverse effects on any rare, threatened, or endangered plant or wildlife species (special-status species).

3.0 EXISTING CONDITIONS

The rural project site is zoned for agriculture and is within Templeton west of Highway 101, and east of the Salinas River (Figures 1 and 2). The BSA currently supports a mosaic of non-native annual grassland and forbs, native oak woodland, and ruderal habitats (Figure 3). An existing culverted road crossing crosses an unnamed blueline drainage that is proposed to serve This drainage is a direct tributary to the Salinas River (approximately 0.35 miles west/downstream) and was confirmed to be potentially jurisdictional as it showed historic and recent evidence of scour and deposition. the residence and ADU. The National Wetlands Inventory (NWI) also classifies this ephemeral drainage as "Riverine", and it is shown as a "blueline" drainage on the Templeton USGS Quadrangle Map (Figure 4). The top-of-bank ranges from a poorly defined gradual swale to a defined bank that was identifiable after the 2022/2023 rainy season and per historic aerial review. No new impacts are proposed to the drainage area as final road improvements will occur within the existing road footprint. Nonetheless, per County request, this BRA also includes an estimate of potential jurisdictional impacts that occurred during installation of the existing road crossing in February 2022. The unnamed blueline drainage did not meet the Section 404 Clean Water Act (CWA) three-parameter jurisdictional wetland criteria, and as such is considered a non-wetland waters of the U.S.

Per the Tree Protection Plan (TPP) prepared for the project (Kokers, January 2023), up to eight (8) native oak trees may be subject to impacts resulting from compaction within or adjacent to the drip line. No native tree removal is proposed for construction or for long-term vegetation (wildfire) maintenance. Please refer to the TPP for additional oak tree information and recommended protection measures.

The USDA Natural Resources Conservation Service (NRCS; Soil Conservation Service, 1983) has identified four soil series mapping units within the project site as summarized below:

- **Lockwood-Concepcion complex, 2 to 9 and 9 to 15 percent slopes**

The Lockwood Soil is a very deep, well drained soil that formed in alluvium derived from sedimentary rocks. Typically, the surface layer is gray shaly loam about 26 inches thick. The subsoil is brown, yellowish brown, and pale brown shaly clay loam to a depth of 60 inches or more. Lockwood soil has moderately slow permeability. The effective rooting depth is 60 inches, and the available water capacity is moderate to very high. Surface runoff is medium, and the hazard of erosion is moderate.

The Concepcion soil is a very deep, moderately well drained soil that formed in alluvium derived from mixed rocks. Typically, the surface layer is grayish brown sandy loam about 20 inches thick. The subsurface layer is gray sandy loam about 20 inches thick. This Concepcion soil has very slow permeability. The effective rooting depth is 60 inches, and the available water capacity is moderate to high. The surface runoff is medium, and the hazard of erosion is moderate. The subsoil has high shrink-swell potential.

- **Linne-Calodo complex, 50 to 75 percent slopes.**

The Linne soil is a moderately deep, well drained soil that formed in material weathered from calcareous sand-stone and shale. Typically, the surface layer is dark gray and dark grayish brown shaly clay loam about 34 inches thick. The underlying material, to a depth of 39 inches, is white shaly clay loam. Weathered, calcareous shale is at a depth of 39 inches. This soil is calcareous throughout. Depth to the shale ranges from 20 to 40 inches. Linne soil has moderately slow permeability, the effective rooting depth is 20 to 40 inches, and the available water capacity is very low to moderate. Surface runoff is very rapid, and the hazard of erosion is very high.

The Calodo soil is a shallow, well drained soil that formed in material weathered from calcareous sandstone and shale. Typically, the surface layer is grayish brown, calcareous clay loam about 16 inches thick over weathered, calcareous shale. Depth to the shale ranges from 10 to 20 inches. Calodo soil has moderately slow permeability and the effective rooting depth is 10 to 20 inches, and the available water capacity is very low to low. Surface runoff is very rapid, and the hazard of erosion is very high.

- **Arbuckle-San Ysidro complex, 2 to 9 percent slopes (map unit 106).**

The Arbuckle soil is a very deep, well-drained soil with moderately slow permeability that formed in alluvium derived from mixed rocks. The surface layer is typically a pale brown fine sandy loam about 10 inches thick with areas of gravel throughout the soil profile. The San Ysidro soil is a very deep, moderately well drained soil with very slow permeability that formed in alluvium derived from mixed rocks. The surface layer is typically a pale brown loam about 20 inches thick.

4.0 METHODS

Prior to field surveys SII biologists conducted a review of available background information including current and historical aerial photography of the project area (Google Earth), the Natural Resources Conservation Service soil survey, and a ten-mile radius query results of the California Natural Diversity Data Base (CNDDB, March 2023). The CNDDB provided a list and mapped locations of special-status plant and wildlife species, and natural communities of special concern, that have been recorded in the

region of the project site. The CNDDDB records help to focus the field survey efforts and evaluation of potential project effects on specific species or habitats. It is noted that the CNDDDB does not necessarily include all potential special-status species potentially occurring onsite or in the region, but rather only those that have been recorded by the CNDDDB.

SII Principal Biologist and/or Senior Biologist, Kevin Merk, conducted focused botanical surveys on March 26, April 13, May 24, and June 26, 2023. Surveys were conducted by walking the entirety of the BSA and recording plant and wildlife species observed and general site characteristics. Conditions for the site survey were conducive to the purpose of documenting plant and wildlife to establish existing conditions. The purpose of the field surveys was to document existing conditions in terms of habitat for plant and wildlife species, suitability for special-status species, the potential to support wetland and/or riparian habitats, and/or waters of the U.S./State. The field surveys included a complete floristic inventory and rare plant survey as surveys were conducted during the peak growing season and full expression of the onsite flora. The BSA habitat types were described by the aggregation of plants and wildlife based on the composition and structure of the dominant vegetation observed at the time the field reconnaissance was conducted.

SII Principal Biologist Jason Kirschenstein reviewed the available background information and available aerial photography, led the field survey efforts, and is primary author and principal in charge of report preparation. The survey data collected on plant and wildlife species and conclusions presented in this biological and wetland assessment are based on the methods and field reconnaissance conducted over the project site as described above.

5.0 RESULTS

5.1 NATURAL COMMUNITIES

Natural Communities (habitat types) are generally described by the assemblages of plant species that occur together in the same area forming habitat types. Community alliance and alliance codes used in this report follow *A manual of California vegetation, 2nd edition* (Sawyer et al. 2009). Plant names used in this report follow *The Jepson Manual, Vascular Plants of California, Second Edition Thoroughly Revised and Expanded* (Baldwin et al. 2012). Refer to Appendix B, Table -1 for the complete list of plant species observed during the floristic inventory and rare plant survey. The BSA supports the following four (4) vegetation communities:

Wild Oats And Annual Brome Grasslands; *Avena* Spp. – *Bromus* Spp. Semi-Natural Alliance

The Wild oats and Annual Brome Grasslands (non-native annual grassland; CNPS: 42.026.00), is typically dominated by non-native annual grasses and herbaceous broadleaf plant species, along with native forbs and wildflowers. Wild oats and Annual Brome Grasslands habitat occupied approximately 5.59-acres of the 22.63-acre BSA. The non-native annual grassland within the project was observed during the floristic inventory and rare plant survey to be dominated by mixed stands of slender wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), vetch (*Vicia villosa*), and fescue (*Festuca* spp.). Other common non-native forbs observed include mustards (*Hirschfeldia*; *Brassica*), and fillarees (*Erodium cicutarium*, *E. botrys*). Native herbaceous species were observed scattered throughout the BSA and included species such as sky lupine (*Lupinus nanus*), blue dicks (*Dichelostemma capitatum*), California poppy (*Eschscholzia californica*), and common bedstraw (*Galium aparine*).

Mixed Oak Forest and Woodland; *Quercus (agrifolia, douglasii, lobata)* Forest & Woodland Alliance

The onsite Mixed Oak Forest and Woodland (CNPS: 71.100.00) canopy ranges from open (greater than 10%) to continuous, and the understory herbaceous layer is relatively dense annual grassland as described above. The oak woodland canopy within the BSA is comprised primarily of mature coast live oak (*Q. agrifolia*) and valley oak (*Q. lobata*), with scattered observations of blue oak (*Q. lobata*). Valleys, gentle to steep slopes. Several mature valley oaks are located adjacent to the proposed building envelope(s), as depicted on Figure 3. Please refer to Appendix D, Tree Protection Plan (Kokers Demo and Tree Service, January 23, 2023) for specific details regarding individual trees such as diameter at breast height (dbh), trunk location, and overall health status. The survey area contains 4.37 acres of mixed oak woodland in the BSA.

Disturbed / Developed

Although not described by the CNPS, Disturbed / Developed (i.e., ruderal) areas within the survey area are best described as a habitat that is subject to ongoing disturbance, such as grading or other activities that remove the majority of the vegetation. Plant species that do occur in these areas typically occur around the edges of cleared or developed areas and are non-native, ornamental, or ruderal species that are adapted to high levels of disturbance. These areas may have patches of weedy ruderal grasses. Disturbed / Developed areas are associated primarily with 0.84 acres of existing roads and (road shoulder) within the BSA.

Agricultural Land

Approximately 11.83 acres of cultivated agriculture fields in the form of active and/or fallow row crops occur within the survey area. Areas depicted as Agricultural Land in Figure 3 also include areas currently or historically utilized for agricultural support structures or equipment storage.

5.2 WILDLIFE

The annual grassland habitat within the surrounding mosaic of rural residential around the BSA provides minimal quality habitat for wildlife species that have become adapted to the urban environment. Evidence of California ground squirrels, meadow mice, gophers, brush rabbit, and deer were observed on the project site. Common species such as acorn woodpeckers, bushtit, house finch, northern flicker, and oak titmouse were also observed. The habitat on the project area does not support a significant amount of grassland habitat in the context of the great expanse of the interconnected and diverse habitat mosaic available to wildlife in the undeveloped areas in this region of northern San Luis Obispo County. As such, the BSA does not represent a significant movement corridor for wildlife.

5.3 WATERS OF THE U.S., WETLANDS, AND WATERS OF THE STATE

The thorough field surveys affording 100 percent visual inspection of the entire project site resulted in no observations of wetlands or riparian habitat on or adjacent to the project site. No seasonal ponded areas (vernal pools) were observed during any of the SII field surveys. An existing culverted road crossing crosses an unnamed blueline drainage that is proposed to serve the residence and ADU. This drainage is a tributary to the Salinas River (approximately 0.35 miles west/downstream) and was confirmed to be potentially jurisdictional as it showed historic and recent evidence of scour and deposition. The National Wetlands Inventory (NWI) also classifies this ephemeral drainage as “Riverine”, and it is shown as a “blueline” drainage on the Templeton USGS Quadrangle Map. It is noted the top-of-bank ranges from a poorly defined gradual swale to a defined bank that was identifiable after the 2022/2023 rainy season and per historic aerial review. Downstream of the crossing the drainage transitions into a broad swale prior to discharging overland immediately adjacent to the Salinas River floodplain (Figure 2).

No new impacts are proposed to the drainage area as final road improvements will occur within the existing road footprint. Per County request (Information Hold letter for GRAD2022-00120, Major Grading Permit; May 9, 2023), this BRA also includes an estimate of potential jurisdictional impacts that occurred during installation of the existing road crossing that occurred in February 2022. The unnamed blueline drainage did not meet the Section 404 Clean Water Act (CWA) three-parameter jurisdictional wetland criteria (lacking hydric vegetation and soils), and as such is considered a non-wetland waters of the U.S. Based on field and historic aerial review, approximately 0.41 acres of potential CDFW jurisdiction (non-native annual grassland) and 0.23 acres of non-wetland waters of the U.S. potentially subject to Corps/RWQCB jurisdiction were delineated within the BSA (includes a minimum of 50' up and downstream of the temporary impact area per site observations and aerial photo review).

The Corps is currently developing a rule to amend the final "Revised Definition of 'Waters of the United States'" rule, published in the Federal Register on January 18, 2023, consistent with the U.S. Supreme Court's May 25, 2023 decision in the case of Sackett v. Environmental Protection Agency (final rule expected by September 1, 2023). The pending rule is expected to limit Clean Water Act jurisdiction over "adjacent wetlands" to those having a continuous surface connection to bodies that are "waters of the United States" in their own right (with no clear demarcation between the "waters" and wetlands). Based on this future ruling, the onsite ephemeral drainage may ultimately not be considered waters of the U.S. due to lack of observable OHWM and wetland vegetation downstream of the study area.

5.4 SPECIAL-STATUS SPECIES AND NATURAL COMMUNITIES OF SPECIAL CONCERN

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the United States Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (FESA); those considered "species of concern" by the USFWS; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA); animals designated as "Species of Special Concern" by the CDFW; and plants occurring on lists 1B, 2, and 4 of the CNPS *Inventory of Rare and Endangered Vascular Plants of California*. Natural Communities of Special Concern are habitat types considered rare and worthy of tracking in the California Natural Diversity Database (CNDDDB) by the CNPS and CDFW because of their limited distribution or historic loss over time.

The search and review of the CNDDDB revealed 50 special-status species composed of 29 special-status plants and 21 special-status wildlife species, with one natural communities of special concern with recorded occurrences in the ten-mile search radius of the proposed project site. The following briefly describes or summarizes the special-status species issues and potential for occurrence on the project site. Table B-2 in Appendix B provides a list of special-status species recorded in the CNDDDB and includes scientific and common name and listing status. Figures 5 and 6 in Appendix A provide maps of CNDDDB special-status plant and wildlife species, respectively, with recorded occurrences within approximately ten-miles of the project site (CNDDDB, April – July 2023).

5.4.1 Special-Status Botanical Resources

The CNDDDB revealed the recorded occurrences of 30 special-status plant species within a ten-mile radius of the project site. Two (2) of these species, the Chorro Creek bog thistle (*Cirsium fontinales* var. *obispoense*) and spreading navarretia (*Navarretia fossalis*) are formally listed as threatened or endangered under the California and/or Federal Endangered Species Acts (CESA/FESA). Chorro Creek bog thistle is FESA/CESA-listed as endangered and spreading navarretia is federally-listed as Threatened.

The remaining plant species listed in Table B-2 are CNPS-listed species suggesting varying degrees of local rarity. The special-status plant species occurrences recorded in the CNDDDB are commonly associated with a specific soil type, moisture regime, habitat, and/or elevation range that dictates the range or microhabitat of the species. No rare, threatened, or endangered plant species or remnants thereof were observed within the project area during SII floristic inventory and rare plant field surveys conducted at the peak expression of the onsite flora during the springtime blooming season. The following provides a suitability analysis for special-status plant species with CNDDDB recorded occurrences in the region.

The perennial species bristlecone fir (*Abies bracteata*), mouse-gray dudleya (*Dudleya abramsii* ssp. *suina*), mesa horkelia (*Horkelia cuneata* var. *puberula*), Santa Margarita manzanita (*Arctostaphylos pilosula*), Santa Lucia manzanita (*Arctostaphylos luciana*), Santa Lucia bush-mallow (*Malacothamnus palmeri* var. *palmeri*), and San Luis Obispo sedge (*Carex obispoensis*) would have been noticeable and identifiable throughout the year and were not observed during any SII field surveys.

Special-status plants recorded in the CNDDDB associated with serpentine soils or clay soils that do not occur on the project site include Mile's milk-vetch (*Astragalus didymocarpus* var. *milesianus*), San Luis and La Panza mariposa lilies (*Calochortus obispoensis*; *C. simulans*), Lemmon's jewelflower (*Caulanthus lemmonii*), Brewer's spineflower (*Chorizanthe rectispina*), Cuesta Ridge thistle (*Cirsium occidentale* var. *lucianum*), Eastwood's larkspur (*Delphinium parryi* ssp. *Eastwoodiae*), Ojai fritillary (*Fritillaria ojaiensis*), Jone's layia (*Layia jonesii*), Palmer's monardella (*Monardella palmeri*), woodland woollythreads (*Monolopia gracilens*), and the most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*). No serpentine or clay soils are mapped or observed within the project area; therefore, the site does not represent typical habitat for these plant species and they were not observed during the rare plant survey.

The special-status plant species recorded in the CNDDDB known from mesic/moist/wetland type habitats occurring in the region are the Chorro Creek bog thistle, San Luis Obispo sedge, shining navarretia (*Navarretia nigeliformis*), and Santa Lucia dwarf rush (*Juncus luciensis*). The unnamed drainage within the BSA is dominated by non-native upland vegetation common to the region, therefore these species are not expected to occur and were not observed during the rare plant survey.

The remaining special-status plant species associated with grassland and/or woodland habitats occurring in the region are the dwarf calycadenia (*Calycadenia villosa*), San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis*), straight-awned spineflower (*Chorizante rectispina*), yellow flowered eriastrum (*Eriastrum luteum*), umbrella larkspur (*Delphinium umbraculorum*), and Oregon meconella (*Meconella oregana*). None of these species, or other special-status plant species were observed during the protocol-level rare plant survey.

The CNDDDB includes Valley Oak Woodland, a Natural Community of Concern within the 10-mile search radius. Mixed Oak woodland within the BSA includes Valley oak (*Quercus lobata*), although only minor pruning and no tree removal is proposed.

5.4.2 Special-Status Wildlife

The CNDDDB search revealed the recorded occurrences of 21 special-status wildlife species within the 10-mile search radius of the project site. Special-status wildlife species known from the region evaluated for this study are discussed below by groups based upon habitat preferences, specific habitat use requirements (i.e. terrestrial or aquatic), mobility, and migratory patterns.

Aquatic Species – The CNDDDB has recorded occurrences for the western pond turtle (*Emys marmorata*) and western spadefoot toad (*Spea hammondi*), California red-legged frog (*Rana draytonii*; CRLF), vernal pool fairy shrimp (*Branchinecta lynchi*), steelhead (*Oncorhynchus mykiss irideus*), California linderiella (*Linderiella occidentalis*) and the San Luis Obispo pyrg (snail; *Pyrgulopsis taylori*) within the ten-mile search range.

The California red-legged frog (federally threatened) and western pond turtle are highly aquatic species found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby, emergent or riparian vegetation, none of which occur on the upland project site. The Salinas River corridor approximately 1,100 feet west of the BSA represents suitable habitat for these two species. California red-legged frog upland movement is considered unlikely to occur within the proposed project area considering the active rural residential, agriculture, and public roadways surrounding the BSA that would limit dispersal opportunities.

Steelhead (federally threatened) and San Luis Obispo pyrg (an aquatic snail) are perennial stream species. No streams or aquatic habitats of any kind were observed within the BSA during SII field surveys. As such, the BSA does not support suitable aquatic habitat for these species. The Wawona riffle beetle (*Atractelmis wawona*) is highly aquatic, and is found in riffles of rapid, small to medium clear mountain streams from 2000-5000 feet in elevation that are not present onsite (associated locally with Whale Rock reservoir tributaries). The Salinas River approximately 1,000 feet west of the BSA is known to support steelhead migration (non-spawning) and is designated federal Critical Habitat.

The vernal pool fairy shrimp (federally threatened), California linderiella, and western spadefoot are closely associated with vernal pool or temporary pond/puddle habitats that are not subject to flowing water. In typical rain years, evidence of seasonal ponds/vernal pools can be clearly distinguished in a grassland setting at any time of year. The SII March 2023 field surveys were after sufficient rainfall to observe any seasonal ponding, especially considering the abundant winter/spring rainfall the region received. No evidence of vernal pool or seasonal pond/puddle habitats were observed during any of the SII field surveys. As such, the project site does not support suitable habitat for these highly specialized aquatic species.

Birds – The CNDDDB includes occurrences for wide-ranging resident and migratory bird species known from the region of the project site. The tricolored blackbird (*Agelaius tricolor*) is locally nomadic but requires bulrush and cattail marsh or ponds for breeding that are not present within the BSA. The golden eagle (*Aquila chrysaetos*) is a wide-ranging species with nests in the region that could on rare occasions forage over the site. The oak woodland is considered suitable nesting habitat for golden eagle (and other raptors). No obvious large stick nests or special-status raptors were observed roosting or exhibiting nesting behavior within the BSA during the reconnaissance-level wildlife surveys conducted in 2023.

The purple martin (*Progne subis*) is a colonial nesting species in tree cavities or human-made structures. This species was not observed during SII field surveys, and limited suitable habitat exists in the BSA within oak woodland adjacent to the proposed impact area. The least Bell's vireo (*Vireo bellii pusillus*; federal and state endangered) is a breeding season migrant known from the Salinas River that requires dense riparian habitat that does not occur within the BSA, and as such is not expected to occur.

Upland Invertebrates – The Lompoc grasshopper (*Trimerotropis occulens*) is mostly associated with sandy soils in grassland, coastal scrub or chaparral habitats. No such habitat occurs on site and the BSA is well outside the known range of this species. The CNDDDB has one historic occurrence from 1909 that

is classified as “possibly extirpated”. The Atascadero June beetle (*Polyphylla nubila*) is known only from inland sand dunes that are not present within the BSA (only gravelly loam soils) and would not occur.

The Crotch bumble bee (*Bombus crotchii*; State Candidate Endangered) and obscure bumblebee (*Bombus crotchii*; *B. caliginosus*) range throughout California to Baja typically found in wildflower rich grasslands and shrublands foraging on many families and genera of flowering plants. The local CNDDB records are unspecified locations around Atascadero from 1968 and 1959 collection records with no current observations or information. The project site is not wildflower dominant and does not represent typical habitat for these species. No potential special-status bumble bees were observed during SII field surveys.

Reptiles/Amphibians (Uplands) – The northern California legless lizard (*Anniella puchra*) is associated with high moisture sandy soils in grassland, coastal scrub or chaparral habitats. The project site does not support typical sandy soils or shrub cover for the northern California legless lizard. Shaly (clay) loam soils mapped onsite would also preclude its occurrence. The lesser slender salamander (*Batrachoseps minor*) is known from the South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore and laurel woodlands with an abundance of leaf litter. No suitable habitat for this species is present in the study within areas mapped as Mixed Oak Woodland. The coast range newt (*Taricha torosa*) is not expected to occur as it breeds in streams and uses dense woodland upland habitats with abundant moist refuge (logs and debris) during non-breeding season. The oak woodland has a mostly open understory and does not support typical moist woodland or downed debris refuge habitat for this species.

Mammals – The American badger (*Taxidea taxus*) is typically found in grasslands and requires friable soils for digging burrows. There is limited suitable grassland habitat for this species with friable soils within the project area. No potential badger dens were detected during the SII field surveys. The project site is outside the accepted range of the San Joaquin kit fox (*Vulpes macrotis mutica*; federal endangered, state threatened), and as such is not expected to occur onsite.

6.0 IMPACT ASSESSMENT AND RECOMMENDED MITIGATION MEASURES

6.1 SUFFICIENCY OF BIOLOGICAL DATA

The SII 2023 field surveys are sufficient to; 1) adequately establish existing conditions of the project site and context in the landscape and land use mosaic; 2) determine the lack of special-status plant or wildlife species occurrence or suitable habitat; 3) determine the extent of potential jurisdictional waters of the U.S./State or wetlands onsite, and 4) adequately evaluate proposed project impacts on biological resources. The data collected as articulated in this report provide sufficient biological resources information to adequately address potential significance of impacts on biological resources.

6.2 IMPACT ASSESSMENT

Plants and Wildlife – The proposed project would convert approximately 2.07 acres of non-native Wild Oats and Annual Brome Grassland, Disturbed / Developed, and Agricultural Lands to rural residential development. The BSA provides typical habitat for locally common wildlife accustomed to the rural environment. Onsite oak woodland will remain around the constructed residence(s). Per the Tree Protection Plan (TPP) prepared for the project (Kokers, January 2023), up to eight (8) native oak trees may be subject to impacts resulting from compaction within or adjacent to the drip line and minor pruning (<15% drip line impact, < 0.01 ac). No native tree removal is currently proposed for construction

or for long-term vegetation (wildfire) maintenance. Please refer to the TPP for additional oak tree information and recommended protection measures. Due to their close proximity, potential impacts to Mixed Oak / Valley Oak Woodland are considered a potentially significant impact requiring mitigation (see Section 6.3 and TPP).

The project site is small in comparison to the large existing blocks of open lands and the Salinas River corridor adjacent to the BSA. The BSA is also bordered to the east by Templeton Road, a regularly travelled and paved county roadway. The BSA offers limited connectivity to other habitat areas and does not represent a substantial movement corridor for local wildlife. The retention of all oak trees, and grassland habitat around the proposed development would continue to provide nesting, foraging, and roosting habitat for resident and migratory birds, and locally common wildlife.

Construction of the proposed project and conversion to rural residential development could result in the mortality and/or displacement of locally common wildlife such as the ground squirrels, gophers, and meadow mice. No special-status plants were observed and are not expected to occur, therefore there is no impact on special-status plant species. Only limited potential for American badger exists within the BSA. No evidence of other special-status wildlife species was observed or is expected within the BSA as described above in Section 5. Considering the analysis above in Sections 4 and 5, impacts on general biological resources and potential wildlife movement from conversion of grassland habitat to residential development is considered to be less than significant.

Vegetation and tree removal (clearing and grubbing) during the nesting season for birds could result in the destruction of active bird's nests. Destruction of active nests is prohibited by the Fish and Game Code of California Sections 3503 and 3503.1 (raptors specifically). As such, this is considered a potentially significant impact requiring mitigation (see Section 6.3).

Jurisdictional Waters Impacts – The proposed Project will not require any new impacts to the unnamed blue line drainage determined to be a federal and state jurisdictional waters as all proposed road improvements will be made within the existing developed road prism. As part of the road crossing installation, two High Density Polyethylene (HDPE) 24-inch culverts were installed in the low-flow channel to convey surface flows. Based on field and historic aerial review, it is estimated the road crossing installed in 2022 temporarily impacted up to 0.19 acres of non-native annual grassland potentially subject to CDFW jurisdiction and 0.10 acres of potential non-wetland waters of the U.S. subject to Corps/RWQCB jurisdiction. It is estimated that the as-built condition of the existing crossing currently occupies up to 0.02 acres of CDFW jurisdiction and 0.01 acres of non-wetland waters of the U.S.

Riparian and/or wetland vegetation was lacking upstream and downstream of temporary disturbance footprint associated with the road crossing. Based on SII field surveys and historic aerial review it is presumed that no wetland or riparian vegetation was impacted as part of the 2022 road construction. As of July 2023, all temporarily impacted jurisdictional areas were naturally re-vegetating with non-native annual grassland species that have re-occupied the disturbance area (Figure 7). The drainage and adjacent areas are also dominated by non-native annual grassland that is expected to continue to re-colonize the prior disturbance area. No long-term change in plant species diversity, percent cover, or biological resource values are expected to occur up or downstream of the existing crossing. Downstream of the temporary work area the drainage transitions to a densely vegetated broad swale that showed no recent sign of sediment deposition.

6.3 RECOMMENDED MITIGATION MEASURES

The following recommended mitigation measures would avoid take or destruction of active bird nests and would fully mitigate potential oak tree impacts, thereby reducing all potentially significant impacts to a less than significant level.

To reduce potentially significant impact on nesting birds from vegetation and tree removals, the following mitigation measures are recommended.

MM BIO-1: Vegetation removal and initial site disturbance shall be conducted between September 1 and January 31 outside of the nesting season for birds. If vegetation and/or tree removal is planned for the bird nesting season (February 1 to August 31), then preconstruction nesting bird surveys shall be conducted by a qualified biologist to determine if any active nests would be impacted by project construction. If no active nests are found, then no further mitigation shall be required.

If any active nests are found that would be impacted by construction, then the nest sites shall be avoided with the establishment of a non-disturbance buffer zone around active nests as determined by a qualified biologist. Nest sites shall be avoided and protected with the non-disturbance buffer zone until the adults and young of the year are no longer reliant on the nest site for survival as determined by a qualified biologist. As such, avoiding disturbance or take of an active nest would reduce potential impacts on nesting birds to a less-than-significant level.

To reduce potentially significant impacts related to oak tree impacts, the following mitigation measures are recommended.

MM BIO-2: Ground disturbing and oak tree construction monitoring by a qualified arborist shall be conducted in accordance with the recommended Tree Protection Plan (TPP) measures (Kokers, January 2023; Appendix C). Per the TPP, inadvertent or accidental oak trees removed shall be replaced in kind at 4:1 ratio. Oak trees shall be replaced in kind at 2: 1 ratio for trees within the impact area that do not survive through the construction process and 18 months following the completion of construction. Replacement trees must be planted onsite in an area ideal for the tree to thrive and receive all necessary nutrients for survival (soil type, exposure to sunlight, and necessary water requirements for the tree to reach maturity).

7.0 CONCLUSIONS

Based on the findings described above establishing the existing conditions of biological resources within the BSA, and incorporation of the recommended mitigation measures, implementation of the proposed project would not result in any substantial adverse effects on biological, botanical, or wetland habitat resources. Therefore, with mitigation measures incorporated into the project, direct and indirect project impacts on biological resources would be considered to be less than significant.

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APPENDIX A

FIGURES

FIGURE 1: USGS QUAD / REGIONAL LOCATION MAP

FIGURE 2: AERIAL VICINITY / USDA SOILS MAP

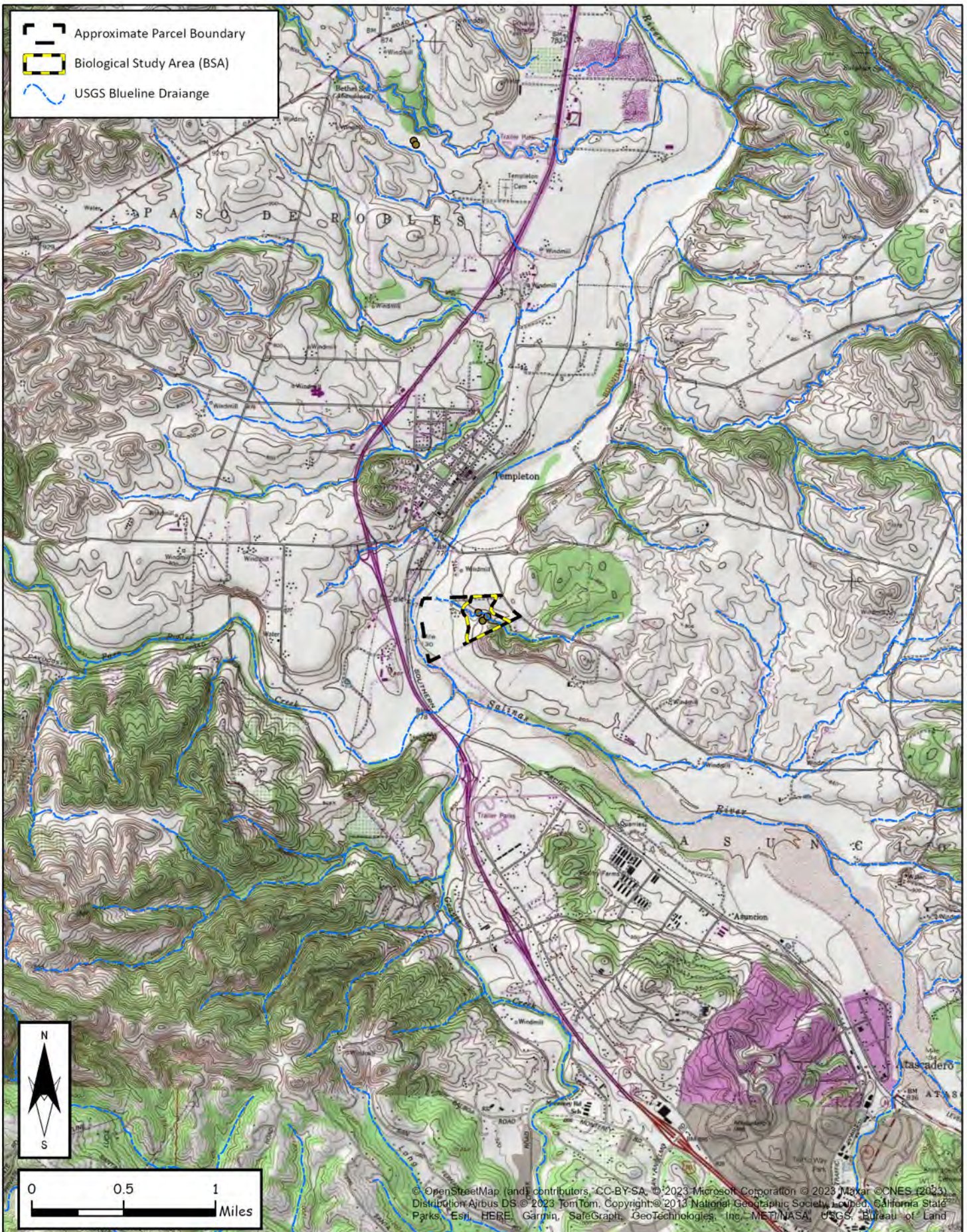
FIGURE 3: NATURAL COMMUNITIES

FIGURE 4: JURISDICTIONAL DELINEATION

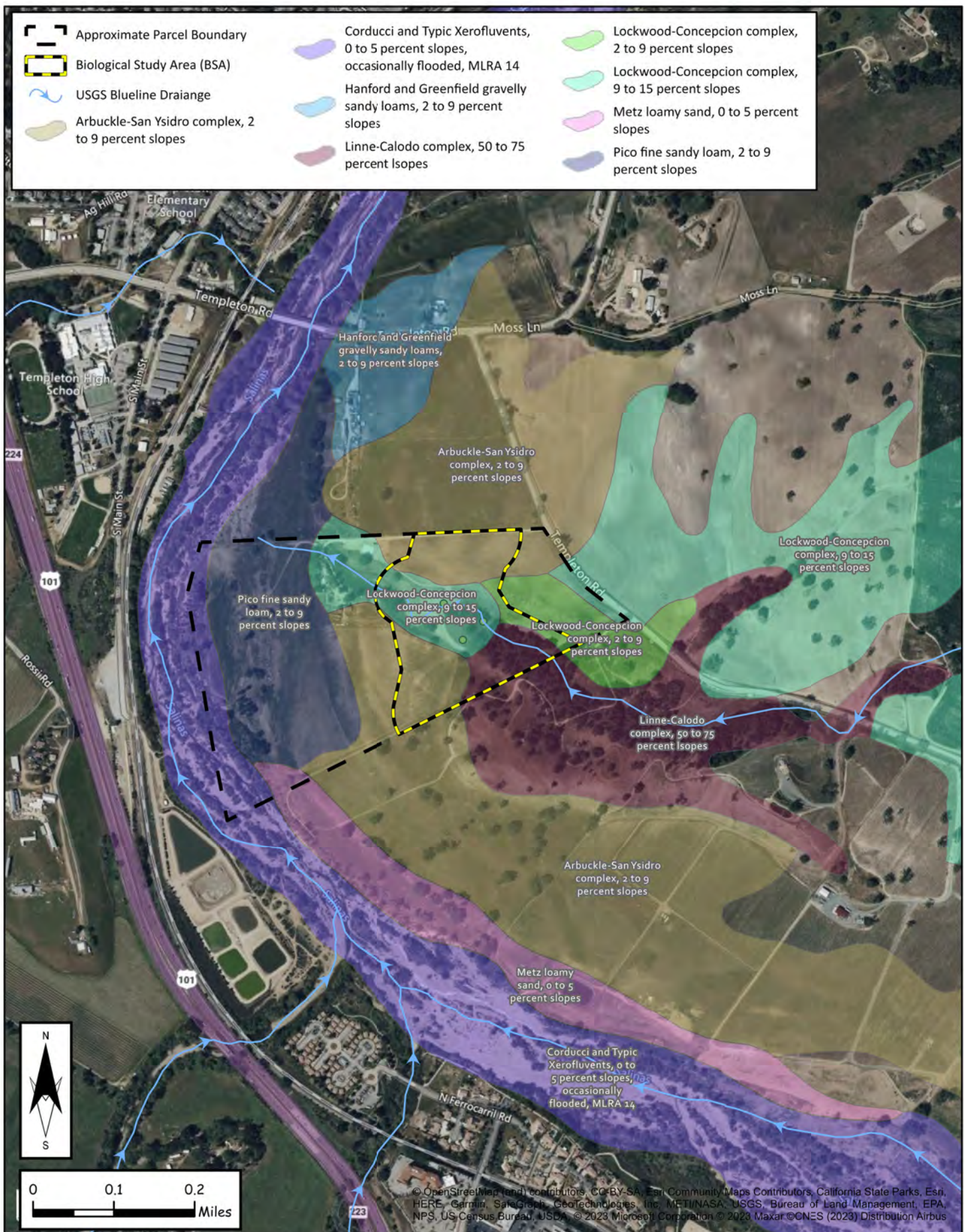
FIGURE 5: CNDDB OCCURRENCES - (PLANTS)

FIGURE 6: CNDDB OCCURRENCES (WILDLIFE)

FIGURE 7: REPRESENTATIVE PHOTOGRAPHS



 sage institute updated 08/11/2023	625 Templeton Road Project, Templeton Biological Resource Assessment	Figure 1 USGS QUAD / Regional Location
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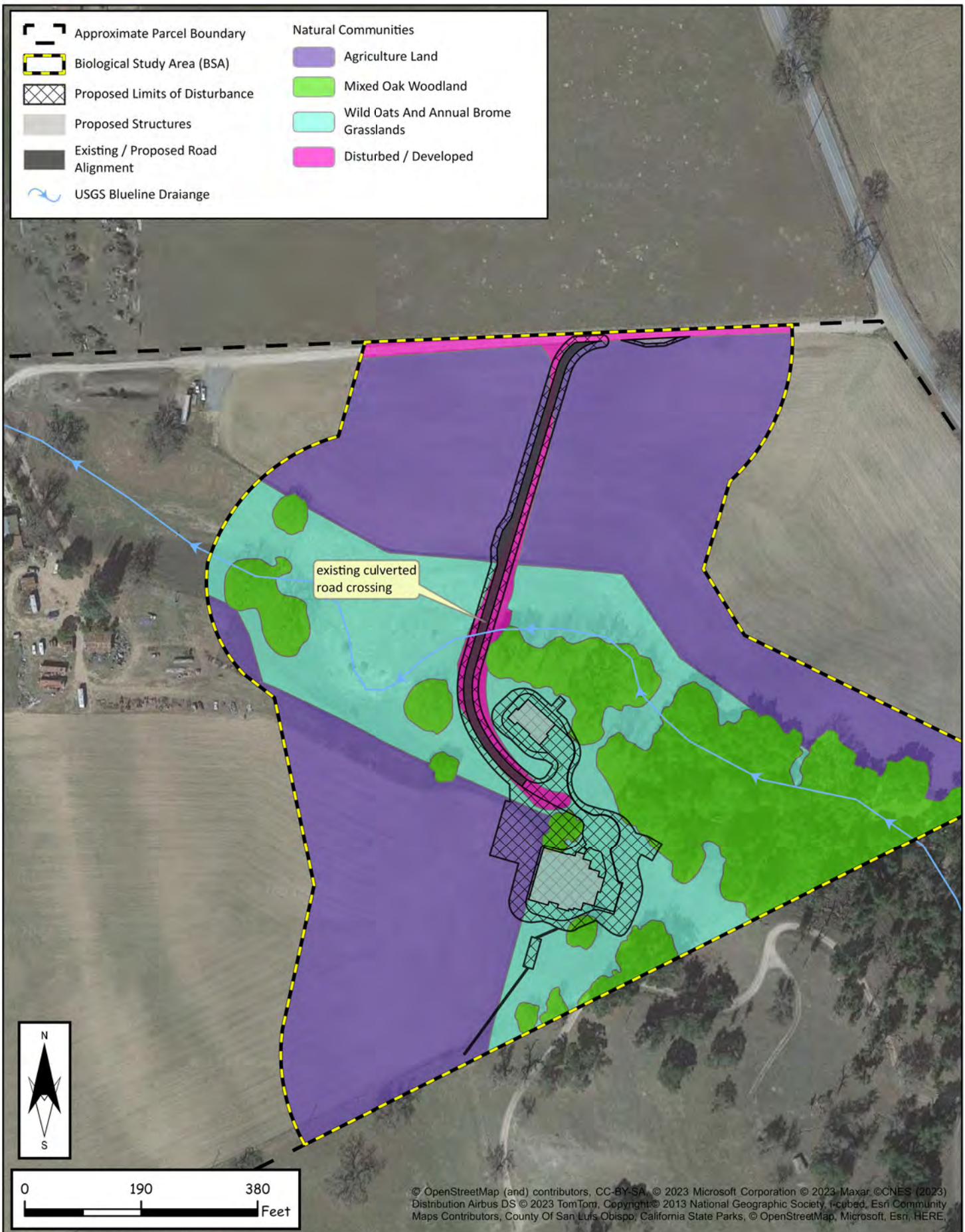


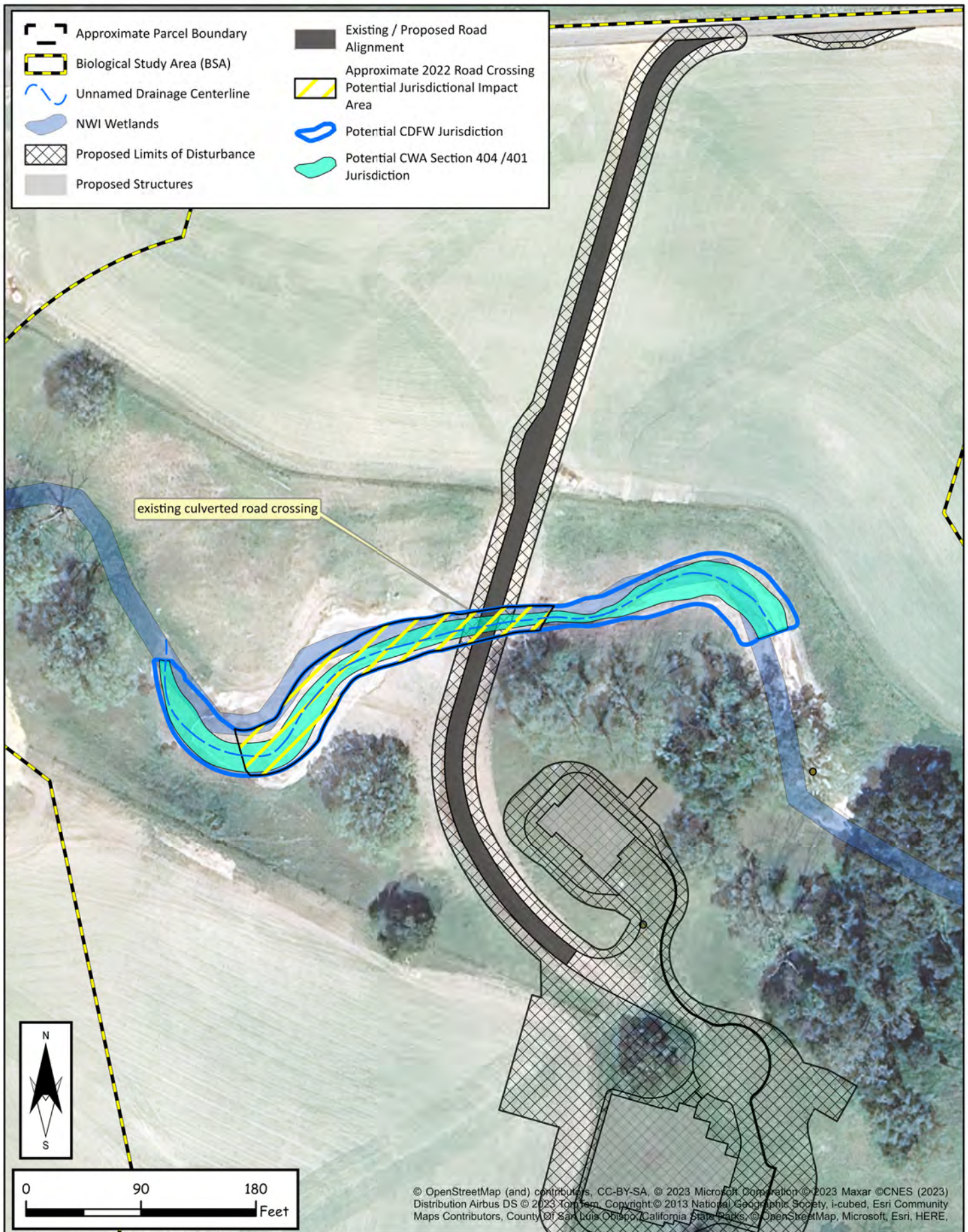
625 Templeton Road Project, Templeton

Figure 2

Biological Resource Assessment

Aerial Vicinity / USDA Soils Map





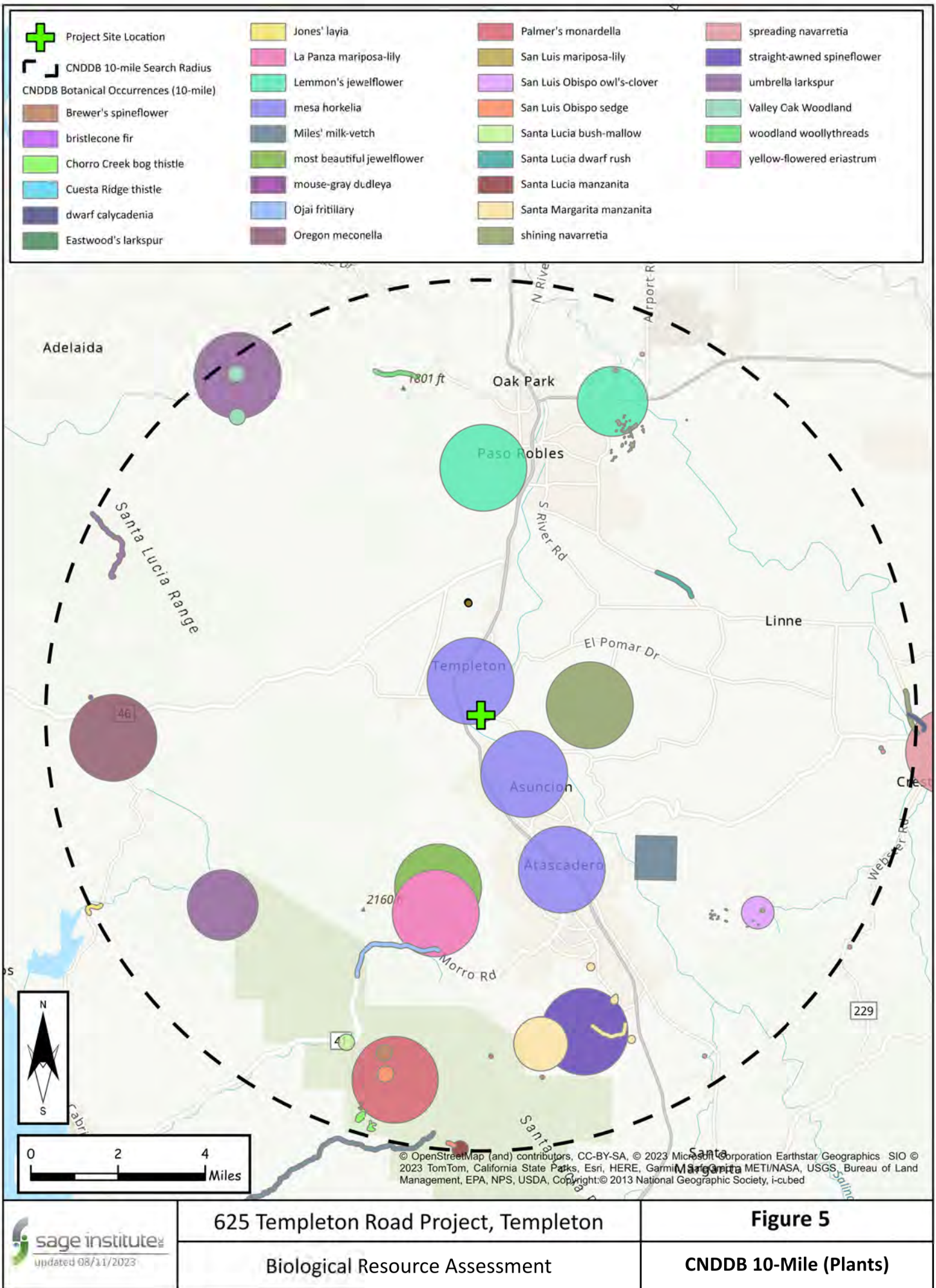


Figure 7 – Representative Photographs

North East Elevation

☉ 242°SW (T) ● 35.539586°N, 120.702213°W ±22ft ▲ 836ft



Photo 1: View west at existing access road from Templeton Road.

South Elevation

☉ 11°N (T) ● 35.537519°N, 120.702945°W ±13ft ▲ 836ft



Photo 2: View north at proposed ADU area in non-native annual grassland and adjacent Mixed Oak Woodland (Valley oaks).

North East Elevation

☉ 219°SW (T) ● 35.538417°N, 120.703493°W ±13ft ▲ 805ft



Photo 3: View southwest from existing culverted road crossing installed in February 2022 over unnamed blueline drainage.

North West Elevation

☉ 153°SE (T) ● 35.537558°N, 120.703222°W ±32ft ▲ 826ft



Photo 4: View southeast at proposed primary residence within non-native annual grassland and adjacent to Mixed Oak Woodland.

APPENDIX B

TABLES

TABLE B-1: FLORISTIC INVENTORY AND RARE PLANT SURVEY SPECIES OBSERVED

TABLE B-2: CNDDDB SPECIAL-STATUS SPECIES

TABLE B-1 FLORISTIC INVENTORY AND RARE PLANT SURVEY SPECIES OBSERVED (Field Surveys: March 26, April 13, May 24, and June 26, 2023)	
Scientific Name	Common Name
<i>Amsinckia intermedia</i>	Common fiddleneck
<i>Anthriscus caucalis</i>	Bur chervil
<i>Aphanes occidentalis</i>	Western lady's mantle
<i>Avena barbata</i>	Slender wild oats
<i>Brassica nigra</i>	Black mustard
<i>Bromus diandrus</i>	Rip gut brome
<i>Bromus hordeaceus</i>	Soft chess
<i>Bromus rubens</i>	Red brome
<i>Calochortus splendens</i>	Splendid mariposa lily
<i>Calystegia malacophylla</i> ssp. <i>pedicellata</i>	Jepson's morning glory
<i>Carduus pycnocephalus</i>	Italian thistle
<i>Castilleja attenuata</i>	Narrow leaved owl's clover
<i>Clarkia speciosa</i> ssp. <i>speciosa</i>	Red spot clarkia
<i>Claytonia perfoliata</i>	Miner's lettuce
<i>Dipterostemon capitatus</i>	Blue dicks
<i>Erodium botrys</i>	Filaree
<i>Erodium cicutarium</i>	Redstem filaree
<i>Eschscholzia californica</i>	California poppy
<i>Festuca microstachys</i>	Small fescue
<i>Festuca myuros</i>	Rattail sixweeks grass
<i>Festuca perennis</i>	Italian rye grass
<i>Galium aparine</i>	Common bedstraw
<i>Hirschfeldia incana</i>	Shortpod mustard
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Foxtail barley
<i>Lotus purshianus</i>	Spanish clover
<i>Lupinus bicolor</i>	Miniature lupine
<i>Lupinus microcarpus</i>	Chick lupine
<i>Matricaria discoidea</i>	Pineapple weed
<i>Navarretia mitracarpa</i>	Paso Robles navarretia
<i>Plagiobothrys nothofulvus</i>	Popcorn flower
<i>Plantago erecta</i>	California plantain
<i>Poa bulbosa</i>	Bulbous bluegrass
<i>Poa secunda</i> ssp. <i>secunda</i>	Pine bluegrass
<i>Psilocarphus brevissimus</i>	Woolly marbles
<i>Quercus agrifolia</i>	Coast live oak
<i>Quercus douglasii</i>	Blue Oak
<i>Quercus lobata</i>	Valley oak

TABLE B-1 FLORISTIC INVENTORY AND RARE PLANT SURVEY SPECIES OBSERVED (Field Surveys: March 26, April 13, May 24, and June 26, 2023)	
Scientific Name	Common Name
<i>Ranunculus californicus</i>	Buttercup
<i>Sidalcea malviflora</i> ssp. <i>laciniata</i>	Lacinate checker mallow
<i>Silybum marianum</i>	Milk thistle
<i>Stellaria media</i>	Chickweed
<i>Stipa pulchra</i>	Purple needlegrass
<i>Thysanocarpus curvipes</i>	Fringe pod
<i>Verbena lasiostachys</i>	Common verbena
<i>Vicia villosa</i>	Winter vetch
<i>Viola pedunculata</i>	Johnny-jump-up

TABLE B-2: CNDDDB SPECIAL-STATUS SPECIES
10-mile Search Radius (March - July 2023)

Scientific Name	Common Name	Federal Status	State Status	SRank	CNPS Rare Plant Rank	General Habitat Requirements	Micro Habitat Requirements	Potential to Occur w/in Study Area
BIRDS								
<i>Agelaius tricolor</i>	tricolored blackbird	None	Threatened; CDFW SSC	S2	--	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	none
<i>Aquila chrysaetos</i>	golden eagle	None	CDFW Fully Protected	S3	--	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	low
<i>Progne subis</i>	purple martin	None	CDFW SSC	S3	--	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine.	Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	none
<i>Vireo bellii pusillus</i>	least Bell's vireo	Endangered	Endangered	S3	--	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	none
AMPHIBIANS & REPTILES								
<i>Batrachoseps minor</i>	lesser slender salamander	None	CDFW SSC	S1	--	South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore and laurel.	Shaded slopes with abundant leaf litter.	none
<i>Anniella pulchra</i>	Northern California legless lizard	None	CDFW SSC	S2S3	--	Sandy or loose loamy soils under sparse vegetation.	Soil moisture is essential. They prefer soils with a high moisture content. Historic occurrences circa 1960.	none
<i>Emys marmorata</i>	western pond turtle	None	CDFW SSC	S3	--	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	none
<i>Rana draytonii</i>	California red-legged frog	Threatened	CDFW SSC	S2S3	--	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	none
<i>Spea hammondi</i>	western spadefoot	None	CDFW SSC	S3S4	--	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Vernal pools are essential for breeding and egg-laying.	none
<i>Taricha torosa</i>	Coast Range newt	None	CDFW SSC	S4	--	Coastal drainages from Mendocino County to San Diego County.	Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs and slow moving streams.	none
FISH								
<i>Oncorhynchus mykiss irideus</i> pop. 9	steelhead - south-central California coast DPS	Threatened	None	S2	--	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	Perennial stream habitat with riparian vegetation and undercut banks for shade and cover. Gravel beds required for spawning.	none
MAMMALS								
<i>Taxidea taxus</i>	American badger	None	CDFW SSC	S3	--	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	moderate
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	S3	--	Annual grasslands or grassy open stages with scattered shrubby vegetation.	Need loose-textured sandy soils for burrowing, and suitable prey base.	none
INVERTEBRATES								
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None	S3	--	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	none
<i>Atractelmis wawona</i>	Wawona riffle beetle	None	None	S1S2	--	Aquatic; found in riffles of rapid, small to medium clear mountain streams; 2000-5000 ft elev.	Strong preference for inhabiting submerged aquatic mosses.	none
<i>Bombus caliginosus</i>	obscure bumble bee	None	None	S1S2	--	Coastal areas from Santa Barbara County north to Washington state.	Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia. Historic occurrence from 1956.	low
<i>Bombus crotchii</i>	Crotch bumble bee	None	Candidate Endangered	S2	--	Coastal California east to the Sierra-Cascade crest and south into Mexico.	Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum. Historic occurrences from 1959 and 1968.	low
<i>Linderiella occidentalis</i>	California linderiella	None	None	S2S3	--	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	Water in the pools has very low alkalinity, conductivity, and total dissolved solids.	none
<i>Polyphyla nubila</i>	Atascadero June beetle	None	None	S1	--	Known only from inland sand dunes in San Luis Obispo County.		none
<i>Pyrgulopsis taylori</i>	San Luis Obispo pyrg	None	None	S1	--	Freshwater habitats in San Luis Obispo County.		none
<i>Trimerotropis oculens</i>	Lompoc grasshopper	None	None	S1S2	--	Known only from Santa Barbara and San Luis Obispo counties.	Possibly Extirpated; historic occurrence from 1909.	none
DICOTS								
<i>Arctostaphylos luciana</i>	Santa Lucia manzanita	None	None	S2	--	Chaparral, cismontane woodland.	On shale (one site says serpentine) outcrops, on slopes, in chaparral. 105-825 m.	none
<i>Arctostaphylos pilosula</i>	Santa Margarita manzanita	None	None	S2?	--	Closed-cone coniferous forest, chaparral, broadleaved upland forest, cismontane woodland, chaparral.	Shale outcrops and slopes; reported growing on decomposed granite or sandstone. 60-1220 m.	none
<i>Astragalus didymocarpus</i> var. <i>milesianus</i>	Miles' milk-vetch	None	None	S2	--	Coastal scrub.	Clay soils. 50-385 m. Historic occurrences circa 1969.	none
<i>Calycadenia villosa</i>	dwarf calycadenia	None	None	S3	--	Chaparral, cismontane woodland, valley and foothill grassland, meadows and seeps.	Open, dry meadows, hillsides, gravely outwashes. 240-1350 m.	low
<i>Castilleja densiflora</i> var. <i>obispoensis</i>	San Luis Obispo owl's-clover	None	None	S2	--	Valley and foothill grassland, meadows and seeps.	Sometimes on serpentine. 9-485 m.	low
<i>Caulanthus lemmonii</i>	Lemmon's jewelflower	None	None	S3	--	Pinyon and juniper woodland, valley and foothill grassland.	75-1585 m. Historic occurrences circa 1960.	none
<i>Chorizanthe breweri</i>	Brewer's spineflower	None	None	S3	--	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest.	Rocky or gravely serpentine sites; usually in barren areas. 45-765 m.	none
<i>Chorizanthe rectispina</i>	straight-awned spineflower	None	None	S2	--	Chaparral, cismontane woodland, coastal scrub.	Often on granite in chaparral. 45-1040 m.	none
<i>Cirsium fontinale</i> var. <i>obispoense</i>	Chorro Creek bog thistle	Endangered	Endangered	S2	--	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Serpentine seeps. 5-385 m.	none
<i>Cirsium occidentale</i> var. <i>lucianum</i>	Cuesta Ridge thistle	None	None	S2	--	Chaparral.	Openings; on serpentinite. Often on steep rocky slopes and along disturbed roadsides. 326-800 m. Cuesta Ridge Botanical Area.	none
<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	Eastwood's larkspur	None	None	S2	--	Chaparral, valley and foothill grassland.	Serpentine. Openings. 60-640 m. Single historic occurrence from 1956.	none
<i>Delphinium umbraculorum</i>	umbrella larkspur	None	None	S3	--	Cismontane woodland, chaparral.	Mesic sites. 215-2075 m. Historic occurrences circa 1964.	low
<i>Dudleya abramsii</i> ssp. <i>murina</i>	mouse-gray dudleya	None	None	S2	--	Chaparral, cismontane woodland, valley and foothill grassland.	Serpentine outcrops. 25-535 m.	none
<i>Eriastrum luteum</i>	yellow-flowered eriastrum	None	None	S2	--	Broadleaved upland forest, cismontane woodland, chaparral.	On bare sandy decomposed granite slopes. 240-580 m.	none
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None	None	S1	--	Chaparral, cismontane woodland, coastal scrub.	Sandy or gravely sites. 15-1645 m. Historic occurrences circa 1960.	none
<i>Layia jonesii</i>	Jones' layia	None	None	S2	--	Chaparral, valley and foothill grassland.	Clay soils and serpentine outcrops. 5-245 m.	none
<i>Malacothamnus palmeri</i> var. <i>palmeri</i>	Santa Lucia bush-mallow	None	None	S2	--	Chaparral.	Dry rocky slopes, mostly near summits, but occasionally extending down canyons to the sea. 3-670 m.	none
<i>Meconella oregana</i>	Oregon meconella	None	None	S2	--	Coastal prairie, coastal scrub.	Open, moist places. 60-640 m.	none
<i>Monardella palmeri</i>	Palmer's monardella	None	None	S2	--	Cismontane woodland, chaparral.	On serpentine, often found associated with Sargent cypress forests. 90-945 m. Cuesta Ridge Area.	none
<i>Monolopia gracilis</i>	woodland woollythreads	None	None	S3	--	Chaparral, valley and foothill grassland, cismontane woodland, broadleaved upland forest, North Coast coniferous forest.	Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m. Single historic occurrences from 1957.	none
<i>Navarretia fossalis</i>	spreading navarretia	Threatened	None	S2	--	Vernal pools, chenopod scrub, marshes and swamps, playas.	San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. 15-850 m. Single occurrence from 1953.	none
<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	shining navarretia	None	None	S2	--	Cismontane woodland, valley and foothill grassland, vernal pools.	Apparently in grassland, and not necessarily in vernal pools. 60-975 m.	low
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	most beautiful jewelflower	None	None	S2	--	Chaparral, valley and foothill grassland, cismontane woodland.	Serpentine outcrops, on ridges and slopes. 90-1040 m. Historic occurrences circa 1960.	none

TABLE B-2: CNDDDB SPECIAL-STATUS SPECIES
10-mile Search Radius (March - July 2023)

Scientific Name	Common Name	Federal Status	State Status	SRank	CNPS Rare Plant Rank	General Habitat Requirements	Micro Habitat Requirements	Potential to Occur w/in Study Area
GYMNOSPERMS								
<i>Abies bracteata</i>	bristlecone fir	None	None	S2S3	--	Lower montane coniferous forest, broadleafed upland forest, chaparral, riparian woodland.	Rocky sites in Monterey and San Luis Obispo counties. Sometimes serpentine. 150-1465 m. West Cuesta Ridge Botanical Area.	none
MONOCOTS								
<i>Calochortus obispoensis</i>	San Luis mariposa-lily	None	None	S2	--	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Often in serpentine grassland. 15-550 m.	low
<i>Calochortus simulans</i>	La Panza mariposa-lily	None	None	S2	--	Valley and foothill grassland, cismontane woodland, chaparral, lower montane coniferous forest.	Decomposed granite, or sometimes on serpentine. 150-1160 m.	none
<i>Carex obispoensis</i>	San Luis Obispo sedge	None	None	S3?	--	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland.	Usually in transition zone on sand, clay, serpentine, or gabbro. In seeps. 5-845 m.	none
<i>Fritillaria ojalensis</i>	Ojai fritillary	None	None	S3	--	Broadleafed upland forest (mesic), chaparral, lower montane coniferous forest, cismontane woodland.	Rocky sites. Sometimes on serpentine; sometimes along roadsides. 95-1140 m.	none
<i>Juncus luciensis</i>	Santa Lucia dwarf rush	None	None	S3	--	Vernal pools, meadows and seeps, lower montane coniferous forest, chaparral, Great Basin scrub.	Vernal pools, ephemeral drainages, wet meadow habitats and streamsides. 280-2035 m.	none
NATURAL COMMUNITY								
Valley Oak Woodland	Valley Oak Woodland	None	None	S2.1	--	--	valley oak (<i>Quercus lobata</i>) present	present

APPENDIX C

TREE PROTECTION PLAN

(KOKERS DEMO AND TREE SERVICE, JANUARY 23, 2023)



Kelly Koker
ISA Certified Arborist® WE-11968A
805 -423-8511
Contractors License 1011902



Hattie Koker
ISA Certified Arborist® WE-13496A
805 -423-4933

Customer : Rick Armet

Date : January 23, 2023

Address: 625 Templeton Rd. Templeton, CA 93465

TREE PROTECTION PLAN

This tree protection plan for multiple *Quercus agrifolia* (commonly known as Live Oaks), *Quercus douglasii* (Blue Oaks) , and *Quercus lobata* (Valley Oaks) trees in Templeton, CA. The trees that will be affected or close to construction will be tagged for easy identification. We were hired as consulting arborists on this project to inform and educate on how to protect the trees during all construction phases along with creating a tree protection plan. This protection plan is based on site review and current site plans to create accurate assessments. After assessment of the site and plans, if impacts to the trees are too great, we will recommend changes to the plans. Due to these possible changes, this report should be read by the owner and their representatives so any changes are understood and addressed before submitted to the appropriate government agency.

It is the property owners responsibility to provide a copy of this report to any contractors that may work within the critical root zone of the trees listed on this report. It is the property owners responsibility to ensure contractors follow and understand the rules set forth by this protection plan. This will guarantee the safety and health of the trees. Any changes made to the project that fall within the critical root zones must be reviewed by the project arborist. After review, implementation of mitigation measures may need to be addressed before changes can proceed. If any clarification is needed for anyone working with the CRZ, Client may reach out to us and it will be provided by the arborists at Kokers Demo & Tree Service. It is the customers responsibility to inform us if they would like us present at any pre-construction meetings.

This project is for the construction of a family dwelling and ADU located at 625 Templeton Road in Templeton, California. All protected trees are listed and number on a spreadsheet. Please see spreadsheet for details on listed trees. At this time, there are no trees

on the property listed for removal. Most trees have minimal impact and the other trees that have a greater impact will be monitored to help preserve their health throughout the entire construction process.

Terms you may see in this report :

CRZ - Critical Root Zone - This is where the sensitive roots of the tree exist. The " Critical Root Zone " (CRZ) means an area that is within a circle circumscribed around the trunk of a tree using a radius of 1 foot per inch DBH.

Example of CRZ - a 20 inch diameter at breast height tree will have a CRZ with a radius of 20 feet.

Dripline - The dripline is the area directly located under the outer circumference of the tree branches / canopy.

DBH - Diameter at breast height, normally about 4 ft 6 inches from ground.

Vigor - Overall health of tree

Branch Collar - area where the branch joins another branch or trunk.

Canopy - collective branches and foliage of a tree or group of trees' crowns.

Crown - upper part of a tree, consisting of the branches and foliage.

Cavity - Open or closed hollow area within the tree, this is usually associated with decay.

Foliage - leaves of a plant

Root Collar - area where the main roots join the trunk or main stem of the plant. Usually at or near ground level.

Codominant Stems - forked stems nearly the same size in diameter, arising from a common junction that lacks a normal branch union.

Included Bark - bark that becomes embedded in a crotch between branch and trunk or between codominant stems . Causes a weak structure.

Absorbing Roots - A tree's absorbing roots are within the top 12 inches of soil. These are fine fibrous roots that take up water and minerals.

Scarification - to break up the surface of topsoil or pavement.

Tree Protection Zone - described as the area within the orange tree protection fencing.

Shall - Word that designates a mandatory requirement.

Should - Word that designates an advisory recommendation.

Brown Rot - Wood-decay fungus, fungi that digest moist wood, causing rot, includes various species that infect living trees and cured wood.

Porous - material that allows water from precipitation to pass through, yet are strong and durable enough to support vehicular or pedestrian traffic.

Protection Plan :

This protection plan will be implemented on all trees listed in this report and surrounding Live Oaks (*Quercus agrifolia*), Blue oaks (*Quercus douglasii*), and Valley Oaks (*Quercus lobata*). The main goal with this protection plan is to preserve all trees that are within the construction area. Using tree protection measures will help ensure the safety and health of all the Oak trees listed in this protection plan.

Tree Rating System -

A rating System of 1 - 10 was used for visually establishing the overall condition of the trees. The trees are rated based on certain factors, including but not limited to the tree's vigor, pests, growth, conks, cavities, splits, bark appearance, past failures, pruning scars, etc. The rating system is defined as follows:

<u>Rating</u>	<u>Condition</u>
0	Deceased
1	Very Poor - Evidence of massive past failures, extreme disease and or is in severe decline.
2	Poor - May be saved with attention to any of the following - Pruning, insect/pest eradication and future monitoring
3	Fair - Some past failures, some pests or structural defects that may be mitigated with pruning.
4	Fair - May have had minor past failures, deadwood, minor Structural defects, some pests
5	Good - Relatively healthy tree with little structural and or pest defects
6	Good - Healthy tree that probably can be left in it natural state
7 - 9	Very Good - Ratings reserved for trees that have had proper arboricultural pruning and attention or have no apparent structural defects
10	Excellent - Healthy tree with excellent structure and foliage. No signs of problems and has had proper care.

1	2	3	4
Tree No.	Tree Species	Trunk DBH	Tree Condition
085	LO	45.8 in	5
086	LO	53.5 in	3
087	LO	48.2 in	6
088	VO	3 ft	0
089	LO	21.8 in	4/5
090	LO	29.8 in	4
091	LO	12 in / 15.6 in 15.6 in / 19.2 in	4

092	LO	32.5 in	3
093	LO	31.7 in	4
094	LO	35.2 in	2
095	LO	62.6 in	4
096	LO	35.5 in	4
097	VO	21 in	2
098	VO	30.2 in	0
099	VO	37.8 in	1
100	VO	30.2 in	4
101	LO	56.5 in	4/5
102	VO	45.8 in	4
103	VO	29.4 in	4
104	VO	27.8 in	4
105	BO	37.8 in	4
106	VO	43.9 in	5
107	LO	7 ft 5 in	4

1 = Tree Number - (only one tree in this report)

2 = Tree species - Common name of tree

(LO - Live Oak , BO - Blue Oak, VO - Valley Oak)

3 = Trunk Diameter at breast height - approx. 4 ft 6 inches

4 = Tree Condition - 1 = poor / 10 = excellent

Work within CRZ - Any work that would take place within the CRZ and tree protection zone must be approved by the project arborist before digging. If approved, the customer shall have the project arborist monitoring if the customer uncovers roots 2 inches or bigger in diameter. The project arborist shall determine when to be onsite to monitor any digging within the CRZ. Any damage must be reported to the arborist within 24 hours of discovery of damage. Any exposed roots shall be recovered with soil the same day they were exposed. If they cannot be covered within the same day, then they must be covered with burlap or another suitable material. This material shall be watered and wet down 2 times a day until they can be recovered.

Arborist Monitoring - Any monitoring deemed will be billed to the customer at \$95/hr with a two hour minimum. The project arborist shall be present when needed for selected activities or construction phases. This doesn't have to be continuous monitoring but more needed when within the CRZ. It is advised that the project manager contacts the project arborist 72 hours prior to when monitoring is needed to assure arborists availability.

Protective Fencing - A protective fencing shall be placed around the critical root zone of all trees listed in this report. All trees listed in this report are within 50 feet of the construction zone. All fencing shall be placed before any grading can begin. Fencing shall be an orange plastic safety fence (also known as snow fencing) standing 4 feet tall supported by tee posts. Tee posts shall be placed at least six to eight feet apart but not to exceed 12 feet post spacing. Fencing can be fastened with wire or zip ties. The fencing will be installed at the outside of the critical root zone unless modifications are approved by the project arborist. Fencing can be placed in an individual set up or set around groups of trees. See attached drawing (No . M-5b) provided by Dept. of Public Works San Luis Obispo County at end of report. If during an arborist visit, employee vehicles or other equipment is parked under any non-fenced trees, then all trees on site will need to have fencing installed. A major cause of a tree's decline is caused by compaction and vehicles / heavy equipment can easily compact the soil. Signs shall be attached to the fencing at a maximum spacing of twenty feet. Sign must state “ **WARNING - TREE PROTECTION ZONE**” . This sign must be readily visible, durable, waterproof and must read as follows :



Where drip line encroachment occurs, extra root zone protection shall happen on the other side of the tree to compensate.

Once the safety fence is placed, the project arborist must be contacted for pre-construction inspection.

Protected trees shall not be used for posting any signs. These trees must be kept free of nails, screws, rope, wire, or any other unauthorized fastening devices.

The above and following safety measures must be understood by anyone who is working in the dripline and within the CRZ.

- **Equipment** - Any equipment that is to be used must not deposit any gas, oil, solvents, or any other damaging materials within the CRZ. Along with liquid deposits, no solid waste shall be dumped or stored within the CRZ. No vehicles or heavy equipment shall be driven or parked within the CRZ unless authorized by the project arborist. Only hand tools and small power tools may be used within the CRZ unless otherwise approved by the project arborist.

- **Trenching / Digging** - When digging within the CRZ, all work should be done in a way to minimize root damage. Roots 2" in diameter shall be saved unless authorized by the project arborist. In cases where roots larger than 2-inch in diameter are severed, they shall be clean cut with sharp pruning tools to not be left ragged and the project arborist shall be reached for inspection. All trenching within the CRZ shall be hand dug unless specific mitigation measures are in place and project arborist approves. Landscapers shall not trench through the CRZ and use only above ground drip line within protected trees CRZ.
- **Paving** - Engineers shall plan all roads and driveways in a manner of slight soil scarification (less than 5 inches), base application layer, and finally asphalt. Pavers shall only be used when a grade build up is required.
- **Grading** - Grade changes outside the tree protection zone shall not significantly alter drainage to the protected trees. Any methods used to change the grade must be used in a way to minimize root damage and ensure that the roots are not cut off from air. If erosion may be a concern factor, the original grade should be returned or soil must be stabilized. Any grading shall not encroach into the CRZ unless approved by the project arborist. Grading shall not disturb or alter drainage that may cause damage to the tree. Any grading shall not cause any fill to affect the base of the tree meaning trees base/trunk shall not be covered and shall remain visible
- **Tree Pruning / Treatments** - All tree pruning shall be completed by a licensed arborist to insure health of the trees and to reduce the risk of failure. All pruning shall be done prior to construction to prevent any damage to limbs such as ripping or breaking. No pruning shall take more than 25% of the live crown. No pruning shall be performed with construction like hand tools like skill saws or sawzalls. Kokers Demo & Tree Service is a full service tree company that can be hired to prune trees if needed and the client so chooses. Any pruning performed shall be according to standards set forth by County of San Luis Obispo and International Society of Arboriculture (ISA). See attached drawing (No . M-5a) provided by Dept. of Public Works San Luis Obispo County at end of report. Treatments may be required before, during or after project completion to help in the tree's survival. This could include root pruning, fertilizers, insecticides, fungicides, stimulants, etc. This will be determined based on impacts to the trees in question and the potential for decline caused by impact.
- **Utilities** - Utility placements such as basic utilities, storm drains and sewer shall be placed down roads/ driveways and outside the critical root zone when possible. All trenches in the critical root zone shall be dug by an air spade or hand tools (hand dug) with the utilities routed around (over/under) roots larger than 3 inches in diameter.
- **Chips / Mulch** - All trees shall receive a deep soaking followed by a 4 to 6 inch layer of wood chips spreading around the trees critical root zone to help retain moisture, soil

structure, and reduce the effects of stress on the trees from construction that didn't have a protection fencing installed. Also any trees critical root zones that were impacted by more than 25 % during construction shall receive the same 4 to 6 inch layer of chips/mulch.

- **Porous materials** - shall be used whenever within the tree's drip line or around the tree when possible. These materials include but are not limited to brick on sand, concrete interlocking pavers, specialized blocks with openings for turf, gravel, mulch, or decks, decomposed granite, gravel and mulch.
- **Construction waste / materials** - Construction materials shall not be placed or stored within the CRZ. No solid or liquid waste shall be placed or dumped within the CRZ either. These items may include but not limited to, lumber, stucco, paint, concrete, concrete waste, pipe, etc. Under no circumstances shall outhouses be placed under any trees. Any construction spills shall require mitigation at the sole cost of the contractor involved. A severe spill shall require bonding of the appraised value of the tree.
- **Mitigation for removed or damaged trees** - Oak trees removed shall be replaced in kind at 4:1 ratio meaning you must plant 4 trees per 1 tree removed. Oak trees shall be replaced in kind at 2:1 ratio for all Oak trees that are impacted that do not survive through the construction process and 18 months following the completion of construction. In kind means the tree replacement shall be the same breed of tree that was removed or killed. Replacement trees must be planted onto property on a specific site that is ideal for that tree to thrive and receive all necessary nutrients for survival. Meaning ideal soil type, exposure to sunlight, and necessary water requirements for the tree to reach maturity.

Clients shall contact the project arborist upon completion of construction to verify all safety measures were followed and mitigation efforts were met. If all mitigation efforts listed in this report are followed, I do not believe any long term harm would come to the trees.

If you have any questions or concerns, please feel free to contact me.



Hattie Koker
ISA Certified Arborist WE - 13496A
805-423-4933

**** This report is not valid unless signed by Hattie Koker ****

Rick Armet - 325 Templeton Rd. Templeton, CA 93465
Tree Protection Plan Spreadsheet

1	2	3	4	5	6	7	8	9	10	11	
Tree #	Tree Species	Trunk DBH	Crown Spread	Height	Tree Condition	Const. Status	Drip Line Impact	Constr. Impact	Mitigation Proposed	Mont. Required	Field Notes
085	Live Oak	45.8 in	46 ft N	25 ft	5	I	15%	C	F, M	Y	
086	Live Oak	53.5 in	47 ft NE	35 ft	3	I	10%	C	F, M	Y	- large cavity in trunk - ants visible
087	Live Oak	48.2 in	75 ft S	65 ft	6	A	0%	N/A	F	N	
088	Valley Oak	3 ft	25 ft S	60 ft	0	A	0%	N/A	F	N	- trunk sounds hollow when hammered
089	Live Oak	21.8 in	30 ft S	30 ft	4/5	A	0%	N/A	F	N	- lean in South direction
090	Live Oak	29.8 in	20 ft S	30 ft	4	A	0%	N/A	F	N	
091	Live Oak	12in / 15.6in 15.6in / 19.2in	25 ft N	25 ft	4	A	0%	N/A	F	N	4 P - 4 spar tree - DBH is of each spar
092	Live Oak	32.5 in	40 ft SW	35 ft	3	A	0%	N/A	F	N	- Brown rot
093	Live Oak	31.7 in	55 ft NE	55 ft	4	I	5%	C	F, M	Y	
094	Live Oak	35.2 in	25 ft NE	50 ft	2	I	5%	C	F, M	Y	- 2P - Codominant - sounds hollow when hammered
095	Live Oak	62.6 in	60 ft N	60 ft	4	I	5%	C	F, M	Y	- 4P - DBH measured below 4 spars - ants
096	Live Oak	35.5 in	50 ft N	55 ft	4	I	10%	C	F, M	Y	- cavity at base of trunk - brown rot
097	Valley Oak	21 in	25 ft NE	60 ft	2	A	0%	N/A	F	N	
098	Valley Oak	30.2 in	N/A	65 ft	0	N/A	N/A	N/A	N/A	N/A	DEAD
099	Valley Oak	37.8 in	55 ft NW	65 ft	1	A	0%	N/A	F	N	
100	Valley Oak	30.2 in	50 ft NW	60 ft	4	I	10%	C	F, M	Y	
101	Live Oak	56.5 in	65 ft NW	70 ft	4/5	A	0%	N/A	F	N	- DBH measured on 2P spars (larger ones) 3P - 3 spar tree total
102	Valley Oak	45.8 in	40 ft NE	60 ft	4	A	0%	N/A	F	N	- DBH measured at 4'6" goind around large spar missing collar

103	Valley Oak	29.4 in	35 ft NE	65 ft	4	A	0%	N/A	F	N	
104	Valley Oak	27.8 in	30 ft NE	60 ft	4	A	0%	N/A	F	N	
105	Blue Oak	37.8 in	50 ft NE	50 ft	4	I	5%	C	F, M	Y	
106	Valley Oak	43.9 in	60 ft NW	70 ft	5	A	0%	E	F	N	
107	Live Oak	7 ft 5 in	35 ft W	25 ft	4	A	0%	E	F	N	- 4P -DBH measured facing West across 3 spars

1 - Tree #

2 - Tree Type - Common Name

3 - Trunk DBH - 4ft 6 in (Circumference divided by 3.14)

4 - Crown Spread & Direction Measured

5 - Tree Height

6 - Tree Condition - 0 (dead) to 10 (excellent)

7 - Construction Status - Avoided, Impacted, Removal

8 - Dripline % of impact

9 - Construction Impact Type - grading, compaction, trenching, easement

10 - Mitigation Requirements - Fencing, Monitoring, Rootpruning

11 - Arborist Monitoring - Yes or No

NOTES:

#089 to #093 - No impact from construction and are not pictured on site plans. Based on initial inspection of site and description of construction location...these trees were tagged as a precautionary measure and will require fencing to prevent any equipment or construction type activities to fall into those driplines.

#106 and #107 - No impact expected, tagged and fencing required due to proximity of property easement / road.

- If construction to take place within 5 feet of dripline, monitoring will be required

- If roots 2 inches or bigger are uncovered at any phase of construction, monitoring will be required along with mitigation for damaged roots.

- There is a tree listed on the site plans that is not tagged... This 36" DBH Live Oak is dead and on the ground.

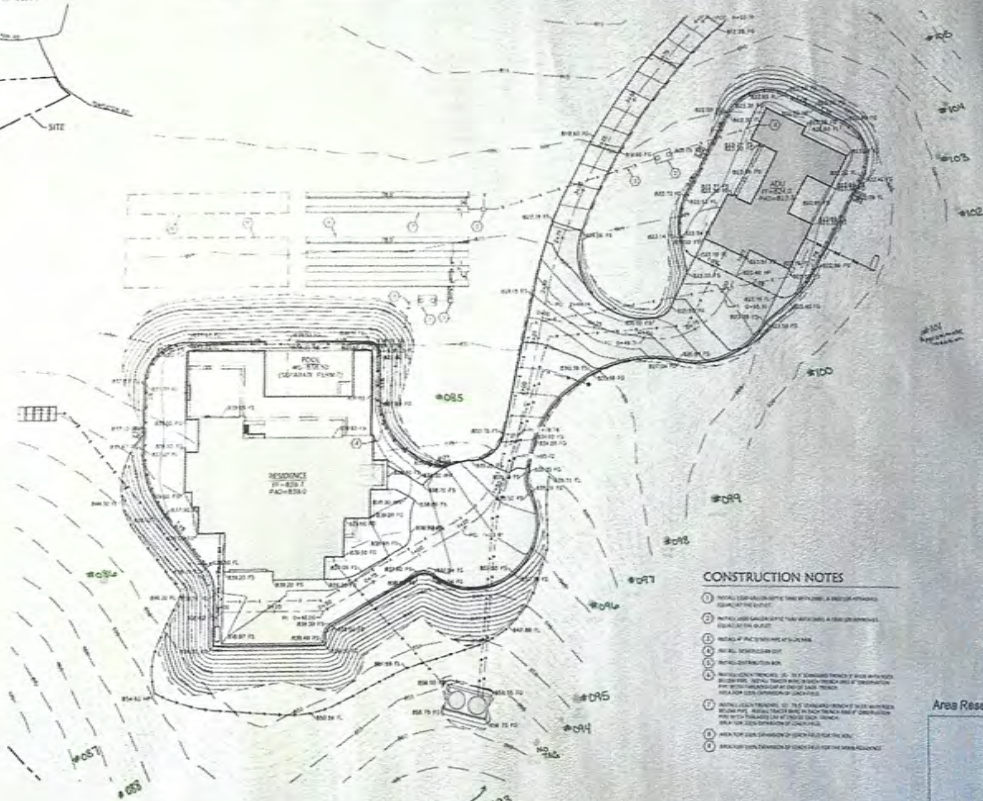
VICINITY MAP



Armet, 625 Templeton Road, Templeton - Engineered Septic Design

SCALE OF MAP: 1" = 40' (Not to Scale)

OWNER
BOHANNON LAND INVESTMENT HOLDINGS TRUST
13300 NORTCH WAY
TEMPLETON, CA 93268



CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA BUILDING CODE AND THE CALIFORNIA SEPTIC SYSTEM DESIGN AND INSTALLATION MANUAL.
2. THE SEPTIC SYSTEM SHALL BE DESIGNED TO SERVE THE ENTIRE BUILDING AND SHALL BE CAPABLE OF HANDLING A MAXIMUM OF 100 GPD OF WASTEWATER.
3. THE SEPTIC SYSTEM SHALL BE DESIGNED TO SERVE THE ENTIRE BUILDING AND SHALL BE CAPABLE OF HANDLING A MAXIMUM OF 100 GPD OF WASTEWATER.
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10. THE SEPTIC SYSTEM SHALL BE DESIGNED TO SERVE THE ENTIRE BUILDING AND SHALL BE CAPABLE OF HANDLING A MAXIMUM OF 100 GPD OF WASTEWATER.



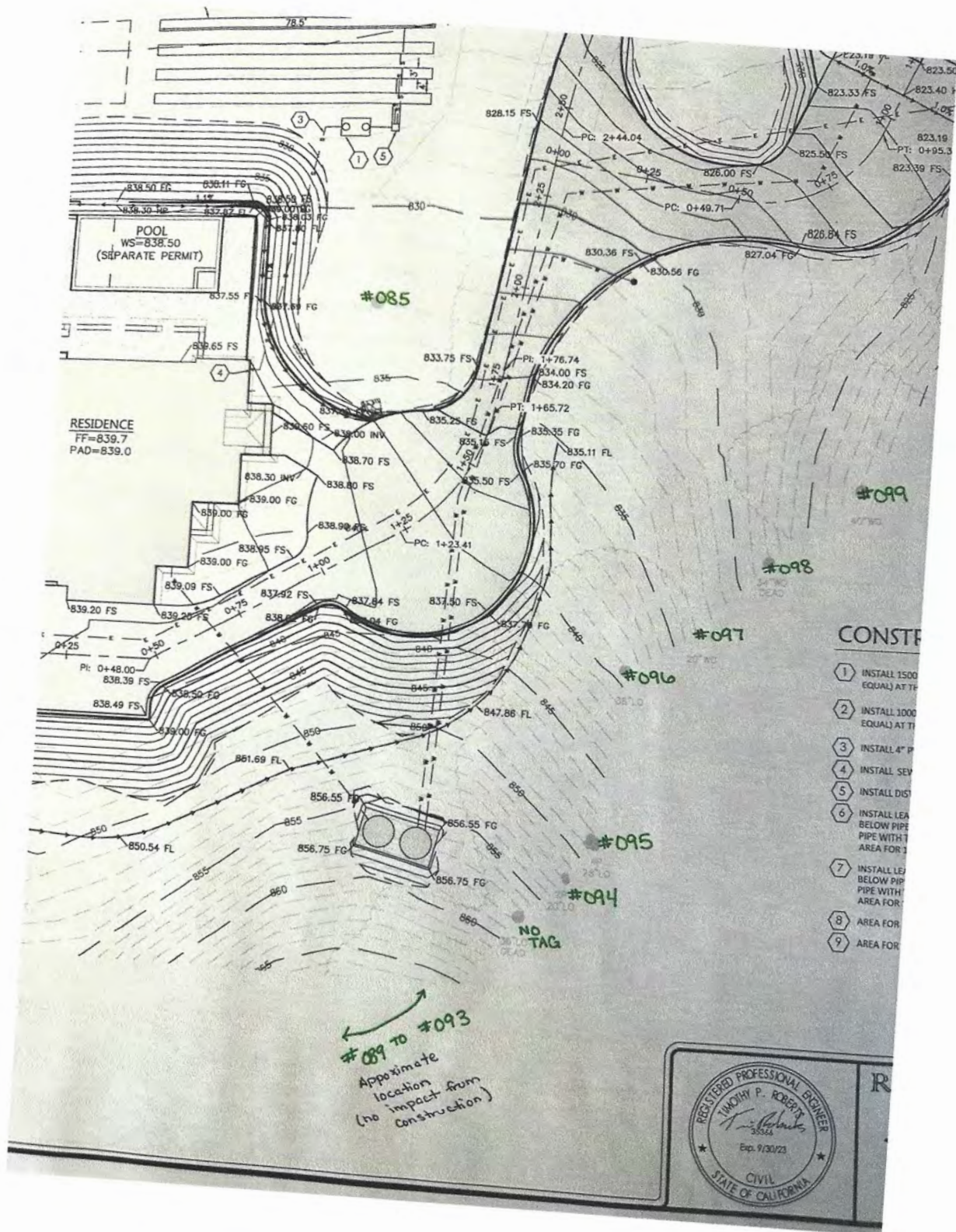
Area Reserved for County

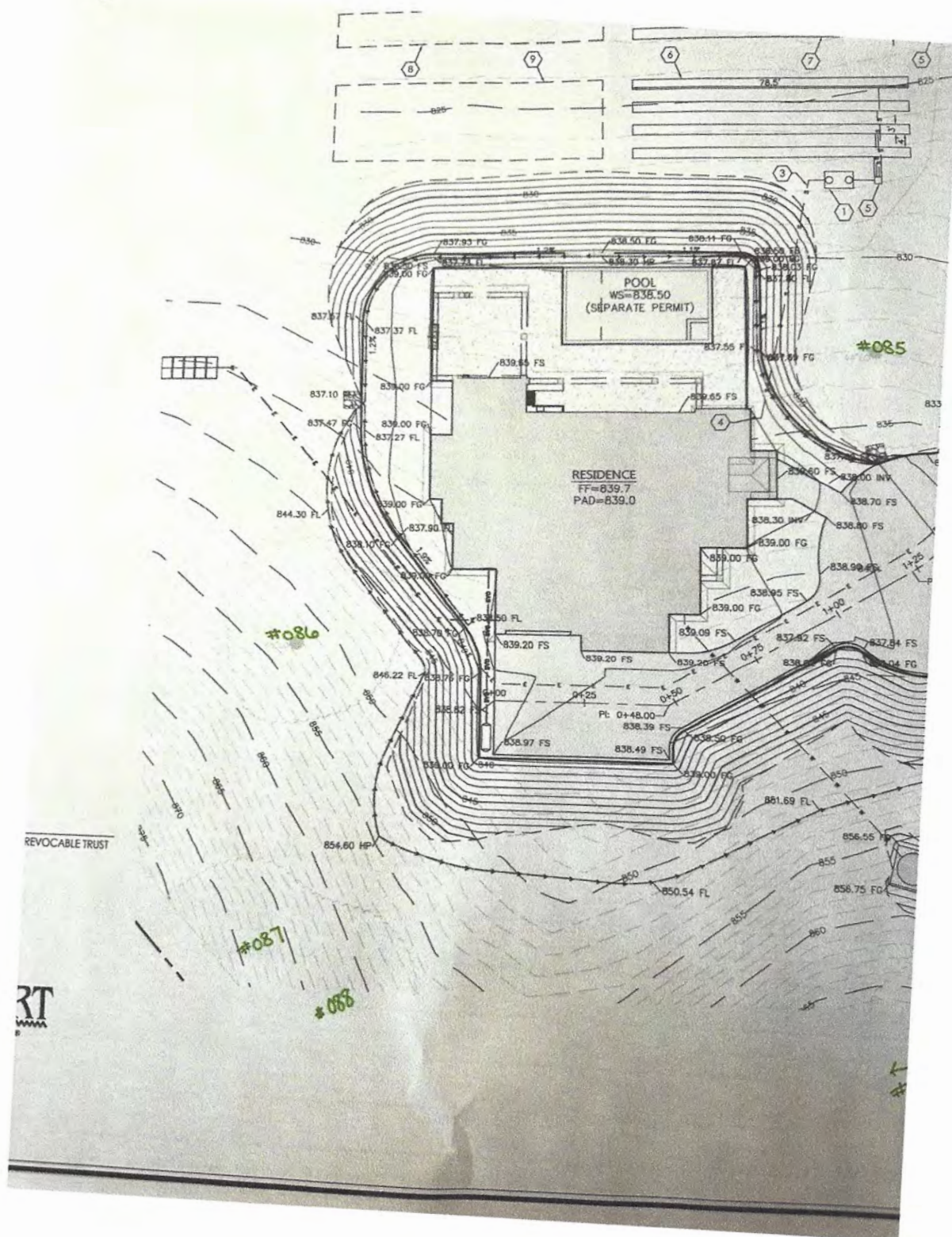


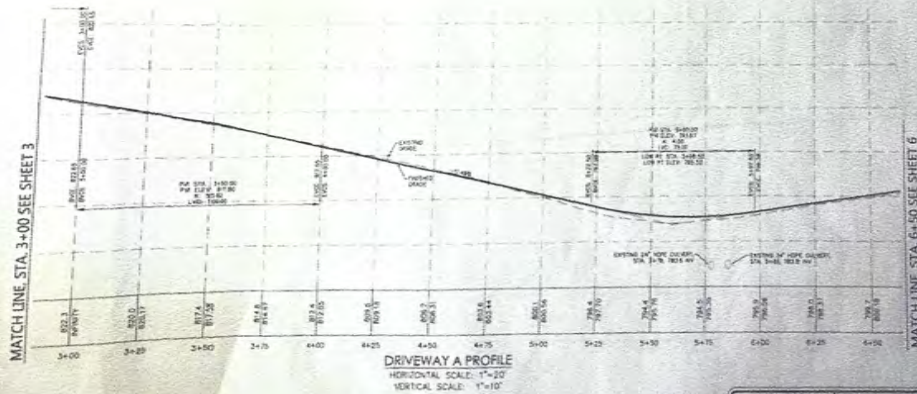
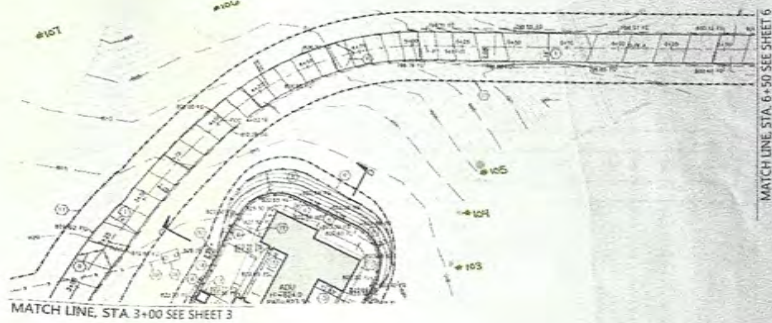
Roberts Engineering
Timothy P. Roberts
Civil Engineer - P.E. 35366
1015 State St. Ste. 100
Templeton, CA 93268
Tel: 805.338.4444
Fax: 805.338.4444
Email: info@robertsengineering.com
Website: robertsengineering.com

Record Drawings	
Revision	Description
1	Initial Design
2	Final Design
3	As-Built

Roberts Engineering, Inc.	
Armet, 625 Templeton Road, Templeton	
Engineered Septic Design	
Project No.	ES-1
Scale	1" = 40'
Sheet No.	201-01
Drawing Date	11/11/2014
Drawing By	T.P.R.
Drawing Check	T.P.R.
Drawing Date	11/11/2014







CONSTRUCTION NOTES

1. All materials shall be of the best quality and shall conform to the specifications of the Department of Transportation, State of Maryland.
2. The contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities.
3. The contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities.
4. The contractor shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities.
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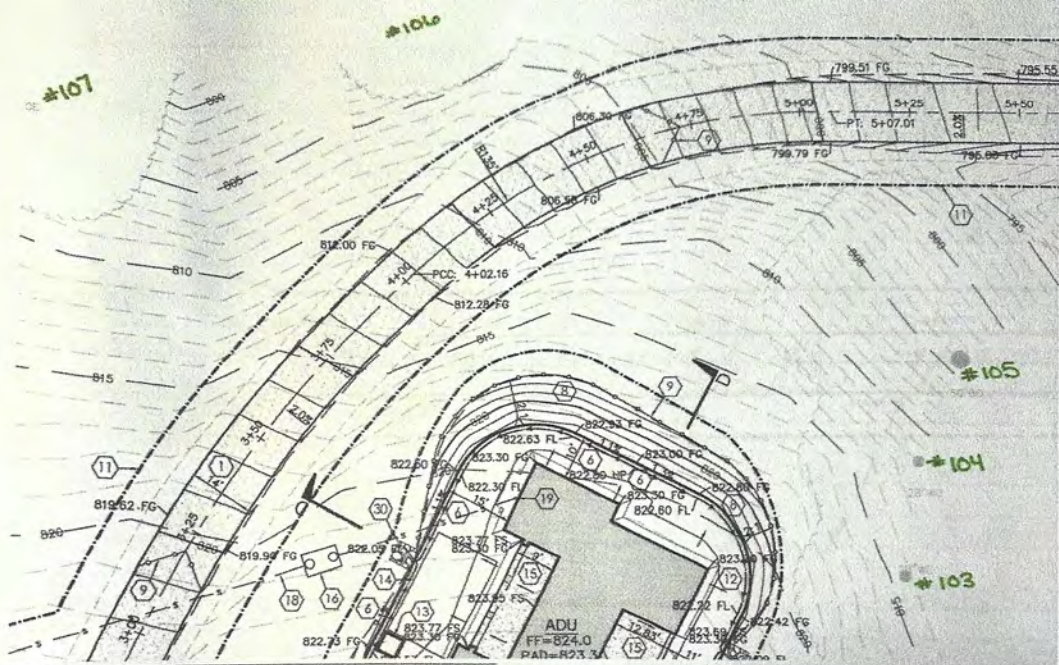
Area Reserved for County

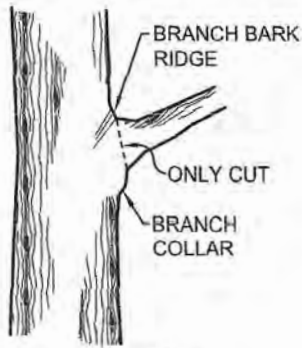


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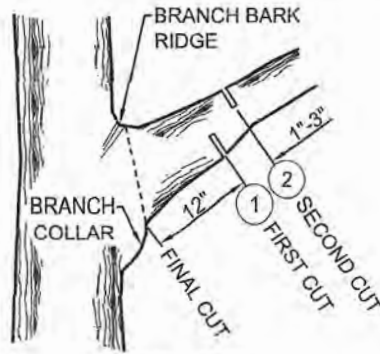
Project Name	Project No.	Project Date
Grading, Drainage, and Erosion Control Plan	10-001	10-01
Client Name	Client Address	Client Phone
1000000000000000	1000000000000000	1000000000000000

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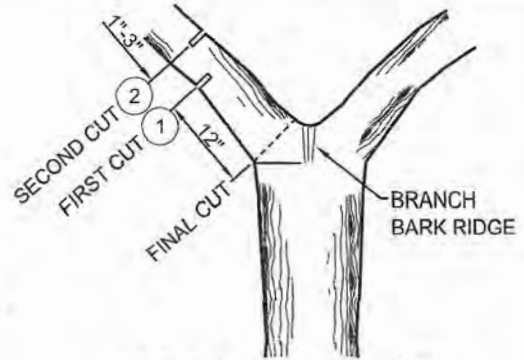




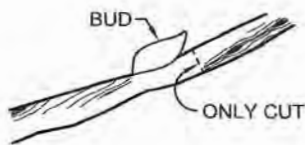
SMALL LIMB



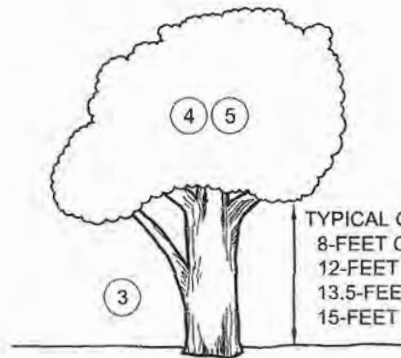
LARGE LIMB



CO-DOMINANT STEM



BRANCHES



TYPICAL CLEARANCES:
 8-FEET CLEAR ABOVE SIDEWALKS
 12-FEET CLEAR ABOVE MULTIUSE TRAILS
 13.5-FEET CLEAR ABOVE ACCESS ROADS (CAL FIRE)
 15-FEET ABOVE COUNTY MAINTAINED ROADS

NOTES:

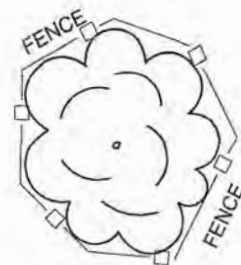
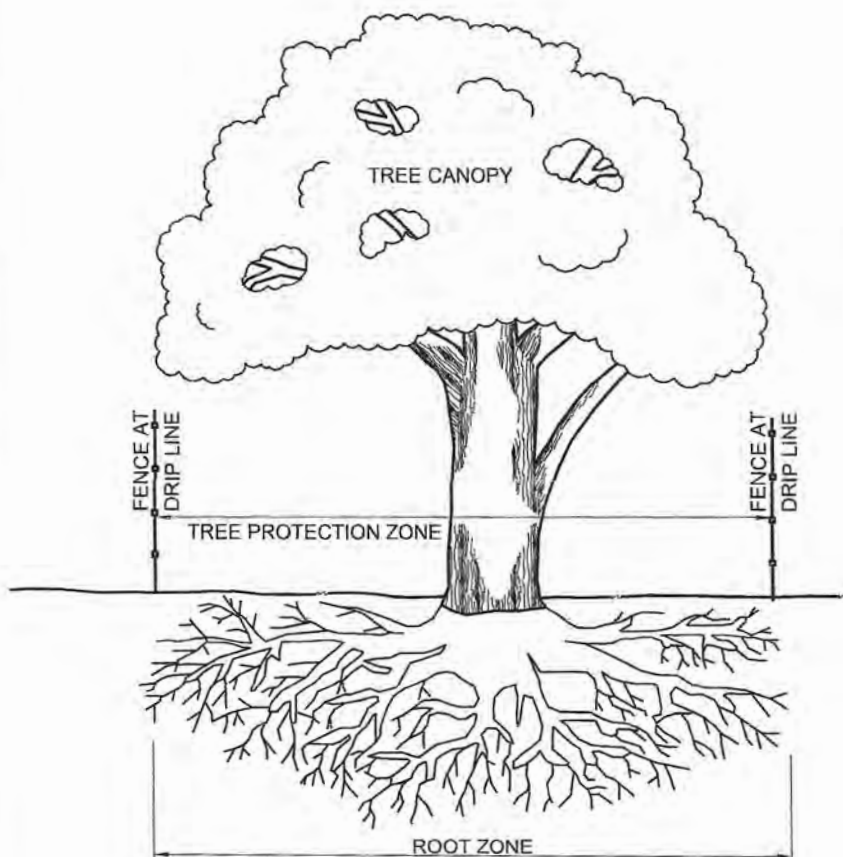
1. FIRST CUT SHOULD BE TO A DEPTH OF 1/3 THE BRANCH DIAMETER.
2. SECOND CUT, LIMB SHOULD SPLIT AWAY CLEANLY.
3. REMOVAL OF LARGER LOWER BRANCHES SHOULD BE MINIMIZED TO AVOID:
 - A. MAKING THE TREE TOP HEAVY AND MORE SUSCEPTIBLE TO "BLOW OVERS",
 - B. REDUCING THE NUMBER OF LARGE BRANCH CUTS MINIMIZES TREE SUSCEPTIBILITY TO DISEASE.
 - C. PROVIDE WILDLIFE SHELTER.
 - D. RETAIN GROUND SHADE TO MAINTAIN SOIL MOISTURE UNDER THE TREE.
 - E. RETAIN THE NATURAL SHAPE OF THE TREE
4. REMOVAL OF THE CANOPY BRANCHES SHOULD BE DONE IN A SYMMETRICAL MANNER SO AS NOT TO UNBALANCE THE TREE.
5. TO MINIMIZE STRESS TO THE TREE LIMIT THE AMOUNT OF TRIMMING DONE IN ONE SEASON TO:
 - A. 10% OF CANOPY FOR OAK TREES
 - B. 25% OF CANOPY FOR OTHER SPECIES
6. 1/3 RULE:
 - A. NEVER REMOVE MORE THAN 1/3 OF A TREE'S CROWN.
 - B. ENCOURAGE SIDE BRANCHES THAT FORM ANGLES THAT ARE 1/3 OFF THE VERTICAL, THE 10:00 AND 2:00 O'CLOCK POSITIONS
 - C. FOR MOST DECIDUOUS TREES, DON'T PRUNE UP FROM THE BOTTOM ANY MORE THAN 1/3 OF THE TREE'S TOTAL HEIGHT.
7. AFTER PRUNING, IT IS NOT NECESSARY TO USE A WOUND DRESSING. WOUND DRESSINGS HAVE NOT BEEN SHOWN TO IMPROVE THE RECOVERY OF THE TREE, AND IN SOME CASES DO ACTUAL DAMAGE TO THE TREE.
8. TREE TRIMMING SHOULD OCCUR ONLY DURING THE DRY SEASON AND AT THE DIRECTION OF THE PROJECT ARBORIST.
9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH RECOGNIZED STANDARDS OF GOOD ARBORICULTURAL PRACTICES.
10. THOROUGHLY CLEAN EQUIPMENT PRIOR TO COMMENCING WORK AND BETWEEN TRIMMING SEPARATE TREES.
11. TREE TRIMMING: ABUTTING PROPERTY OWNERS MAY SECURE AN ENCROACHMENT PERMIT TO HIRE A LICENSED, BONDED AND INSURED TREE COMPANY TO TRIM TREES WITHIN THE COUNTY RIGHT-OF-WAY, AT THEIR OWN EXPENSE. TREES WILL BE TRIMMED AS APPROVED BY THE PUBLIC WORKS DEPARTMENT ENCROACHMENT PERMIT ENGINEER.



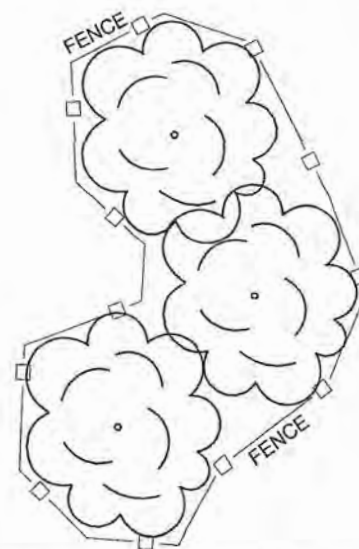
DEPT. OF PUBLIC WORKS - STANDARD DRAWINGS

**TREE
TRIMMING METHODS**

Issued:	Scale:
June 2019	NTS
Revised:	Revision No:
Drawing No:	M-5a



SINGLE TREE APPLICATION



MULTIPLE TREE APPLICATION

NOTES:

1. PRIOR TO THE START OF ANY CLEARING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES TREE PROTECTION FENCING SHALL BE INSTALLED AROUND ALL TREES IDENTIFIED TO BE PROTECTED, OR THAT MAY BE IMPACTED, AND AT ALL TREES WITHIN 50-FEET OF WORK ACTIVITIES.
2. TREE PROTECTION FENCING SHALL BE ERECTED AT THE EDGE OF THE TREE DRIP LINE TO PROTECT THE TREE ROOT ZONE.
3. TREE PROTECTION FENCING SHALL BE ORANGE PLASTIC "SNOW FENCING" OR APPROVED EQUAL INSTALLED PER MANUFACTURER'S RECOMMENDATIONS WITH POST SPACING OF NO MORE THAN 12-FEET.
4. TREE PROTECTION FENCING SHALL BE MAINTAINED IN PLACE THROUGH TO PROJECT COMPLETION AND CLEAN-UP.



DEPT. OF PUBLIC WORKS - STANDARD DRAWINGS

TREE
PROTECTION FENCING

Issued:	Scale:
June 2019	NTS
Revised:	Revision No:
Drawing No:	M-5b