BIOLOGICAL RESOURCES EVALUATION

4660 SIERRA COLLEGE BOULEVARD PROJECT

PLACER COUNTY, ROCKLIN, CALIFORNIA

LSA

June 2017

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PLACER COUNTY, ROCKLIN, CALIFORNIA

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LSA Project No. THS1501

LSA

June 2017

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1.0 INTRODUCTION

This report presents the findings of a biological resources evaluation prepared by LSA Associates, Inc. (LSA) for the 4660 Sierra College Boulevard Property (hereafter referred to as "property"). This report discusses vegetative communities, associated wildlife, and special-status species occurring on the property, and evaluates the impacts to these resources from the proposed project.

1.1 PROJECT LOCATION

The 4660 Sierra College Blvd Property is approximately 6.64 acres, located within the City of Rocklin, Placer County, California (see Figures 1, 2, and 3). The property is located southwest of the intersection of Sierra College Boulevard and the I-80 eastbound ramps. The property is bounded by Sierra College Boulevard to the east, the Interstate 80 Sierra College Boulevard off ramp to the north and west, and Assessor's Parcel Number (APN) 045-052-029-000 to the south. The project area consist of APNs 045-052-021-000, 045-052-015-000, 045-052-020-000, and 045-052-019-000.

1.2 PROPOSED PROJECT

Thomas Properties, in coordination with the City of Rocklin, proposes to construct a new retail space on the west side of Sierra College Boulevard. The approximately 6.64-acre property is currently proposed to include the following:

- Two fast food restaurants (Chick-Fil-A, and Del Taco) with drive-throughs and a total of 6,964 square feet;
- Three fast casual food restaurants (Habit Burger, Pancheros, and an unassigned restaurant); one with a drive through (Habit Burger) and two without drive-throughs, and a total of 7,400 square feet; and
- One auto service facility (10,600 square feet) and one full service car wash, retail site, sit down restaurant, hotel, etc. (not yet assigned, size to be determined). The auto service facility is expected to have a private hand car wash area for customers. .

The area is zoned as Planned Development-Commercial (PD-C) and has a General Plan designation of Retail Commercial (RC).

The project will also include a monument sign that will be approximately 10 feet tall and 11 feet wide, and a pylon sign that will be approximately 50 feet tall and 25 feet wide.

Construction is scheduled to begin in Fall 2016. At maximum, all phases of project construction are expected to take 24 months.

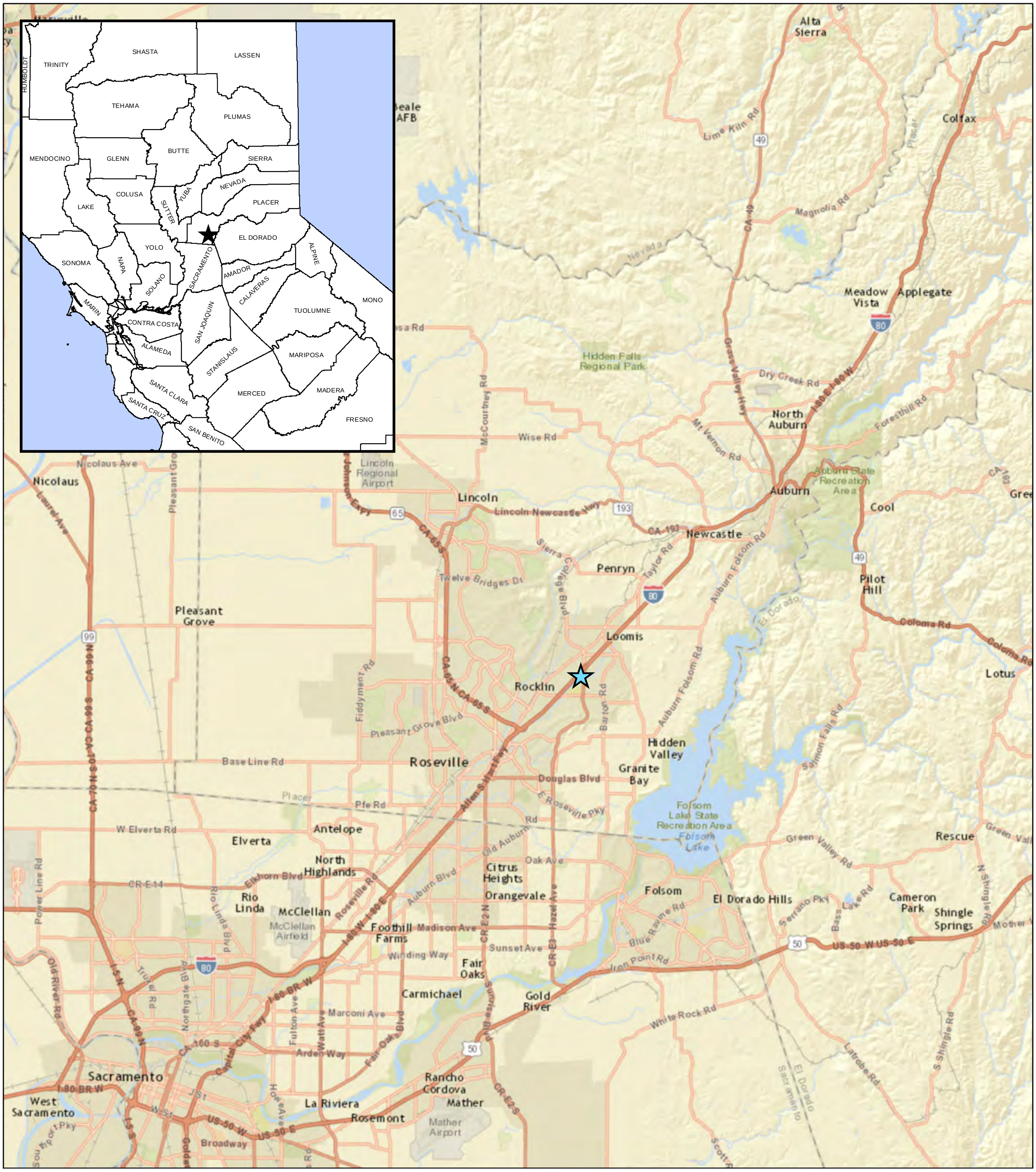

FIGURE 1

LA

LEGEND

☆ Project Location

0 2.5 5

MILES

SOURCE: ESRI World Street Map (2015)

4660 Sierra College Boulevard Project

Rocklin, Placer County, California

Regional Location

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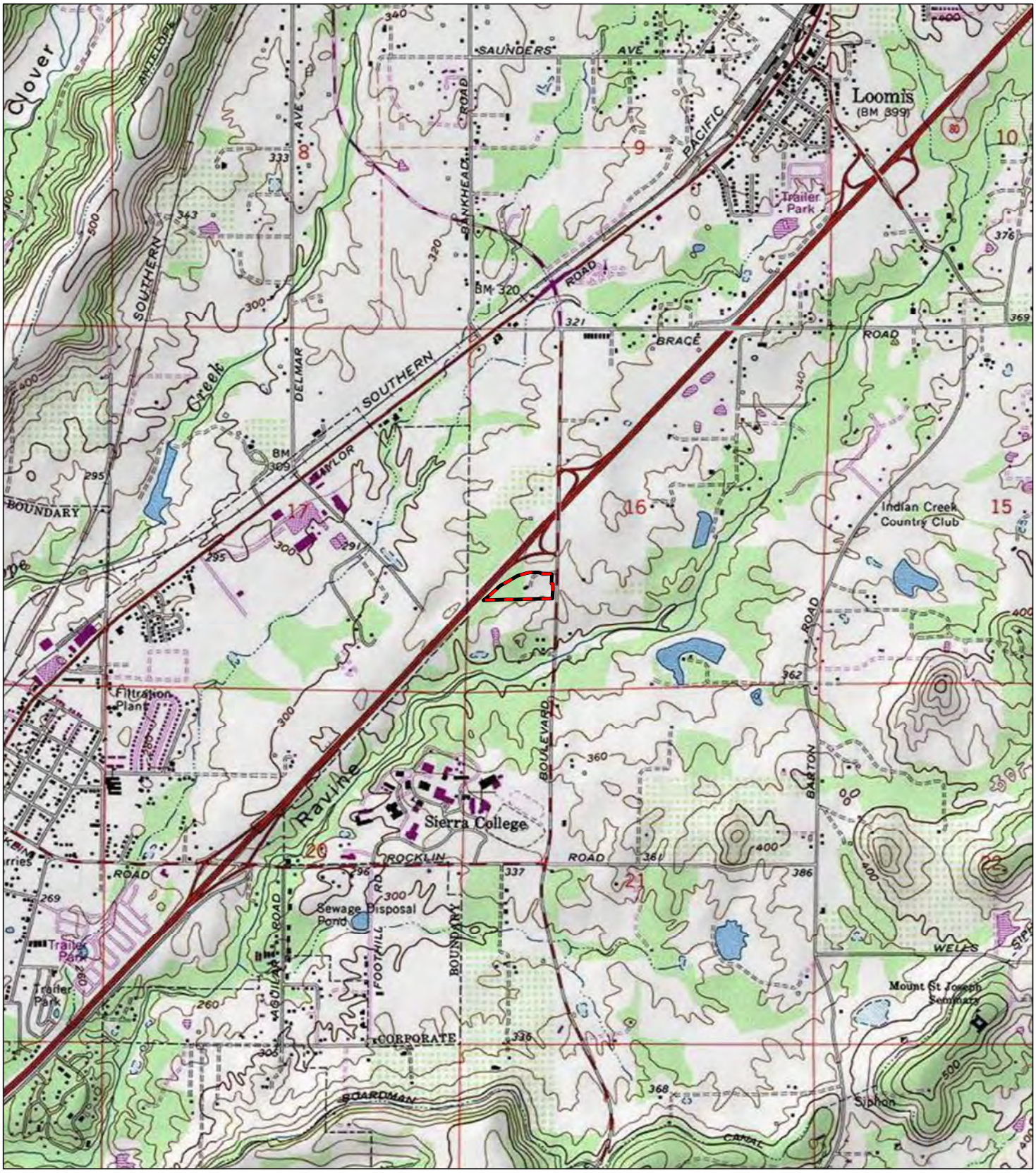

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Biological Study Area - (6.64 ac)

FIGURE 2

N

0 1000 2000

FEET

SOURCE: USGS 7.5-Minute Topographical Quadrangle (Rocklin)

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4660 Sierra College Boulevard Project
Rocklin, Placer County, California
Project Vicinity on Topographic Base

LSA

LEGEND

Biological Study Area - (6.64 ac)

FIGURE 3

N

0 500 1000

FEET

SOURCE: NAIP Aerial Imagery (7/2014)

I:\THS1501\GIS\BRE_Fig3_prj_vic_aerial.mxd (9/11/2015)

4660 Sierra College Boulevard Project
Rocklin, Placer County, California
Project Vicinity on Aerial Base

2.0 METHODS/REGULATORY SETTING

2.1 LITERATURE SEARCH

Prior to conducting any field work, LSA performed database searches of the California Natural Diversity Database (CNDDB 2015), the California Native Plant Society (CNPS) Online Inventory (2015), and the USFWS, Sacramento Field Office (USFWS 2015) referencing the Auburn, Gold Hill, Lincoln, Pilot Hill, Rocklin, and Roseville, 7.5-minute quadrangles. The individual lists are contained in Appendix A.

The special status species lists obtained from the CNDDB, CNPS, and USFWS were reviewed to determine which species could potentially occur within the property. Those species with potential to occur based on habitat requirements were compiled and are further discussed below (Section 5.3). Species requiring specific habitat not present in the vicinity of the project (e.g., vernal pools) were eliminated as potentially occurring and are not discussed further. Those species that could potentially occur on the project site are discussed in Section 6.1.

2.2 FIELD SURVEYS

A jurisdictional delineation and general field survey was conducted on September 3, 2015 by LSA biologists Mike Trueblood and Stefan de Barros. A subsequent survey was conducted on June 1, 2017, by Mike Trueblood, to assist the surveyors in locating an elderberry shrub. Wildlife and plant species observed were recorded during the field survey; a comprehensive species list is contained in Appendix B.

3.0 SETTING

3.1 BIOLOGICAL RESOURCES

The property is approximately 6.64 acres and located southwest of the intersection of Sierra College Boulevard and the I-80 eastbound ramps. A gravel driveway runs east-west to the remains of an old residence located in the central portion of the property.

3.1.1 Environmental Setting

Vegetation on the property is predominantly composed of mixed oak woodlands and annual grassland.

Topography on the property is generally flat and gradually slopes north to south through the property. Elevations range from 320 to 340 feet above mean sea level. Water entering the property at the north boundary is collected in a culvert that flows out the southeast boundary and ultimately discharges the water into Secret Ravine, a perennial tributary to Dry Creek.

Surrounding land uses include a church to the south, retail uses to the east, and the I-80 freeway along the northern and western property boundaries. Lands in the vicinity of the property are predominantly developed.

3.2 PLANT COMMUNITIES/LAND USES AND ASSOCIATED WILDLIFE

3.2.1 Plant Communities

Two plant communities were identified within the property: Mixed Oak Woodland and California Annual Grasslands. The property is comprised of predominantly California annual grasslands along the eastern half of the property and mixed oak woodland along the western half. Species names follow the standard nomenclature presented in *The Jepson Manual* (Hickman, 2012). Plant communities/land uses are summarized in Table A and shown in Figure 4.

Table A: Plant Communities/Land Uses on the Property (in acres)

Plant Community/Land Use	Total
Mixed Oak Woodland	3.07
California Annual Grasslands	3.57
Total	6.64

Note: Acreages above denote the property is extending somewhat beyond the development footprint.

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Biological Study Area - (6.64 ac)

Plant Communities / Land Uses - (6.64 ac)

California Annual Grassland - (3.57 ac)

Mixed Oak Woodland - (3.07 ac)

Elderberry Shrub

0 75 150
FEET

FIGURE 4

4660 Sierra College Boulevard Commercial Development
Rocklin, Placer County, California

Plant Communities / Land Uses

SOURCE: Basemap - DigitalGlobe (6/2011); Mapping - LSA Associates, Inc. (2015)

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3.2.1.1 Mixed Oak Woodland

The mixed oak woodland comprises approximately 3.07 acres and is dominated by interior live oak and blue oak (*Quercus douglasii*) with some Valley oak (*Quercus lobata*) and foothill pine (*Pinus sabiniana*) intermixed. The understory is dominated by California blackberry (*Rubus ursinus*) and poison oak (*Toxicodendron diversilobum*).

3.2.1.2 California Annual Grasslands

California annual grasslands comprise approximately 3.57 acres within the property, on each side of the road beyond the shoulders. Typical plant species include brome (*Bromus* spp.), oat (*Avena* spp.), vetch (*Vicia* spp.), and fescue (*Vulpia* spp.). Yellow star thistle (*Centaurea solstitialis*), wild radish (*Raphanus* spp.) and mustard (*Brassica nigra*) are also present.

3.2.2 Wildlife Usage

The trees on the property provide suitable nesting habitat for raptors and other bird species. The grasslands on the property are suitable foraging habitat for many bird species.

Wildlife species (or sign) observed on the property during the field survey include (but are not limited to): mule deer (*Odocoileus hemionus*), Bewick's wren (*Thryomanes bewickii*), lesser goldfinch (*Spinus psaltria*), wrentit (*Chamaea fasciata*), bushtit (*Psaltriparus minimus*), mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferous*), and western fence lizard (*Sceloporus occidentalis).* Other wildlife species that have potential to occur in this area include American crow (*Corvus americanus*), white-tailed kite (*Elanus leucurus*), opossum (*Didelphis virginianus*), striped skunk (*Mephitis mephitis*), deer mouse (*Peromyscus maniculatus*), California meadow vole (*Microtus californicus*), common garter snake (*Thamnophis sirtalis*), and Pacific gopher snake (*Pituophis catenifer catenifer*).

3.3 AQUATIC RESOURCES ON THE PROPERTY

Aquatic resources located on the property include two areas where seasonal wetlands occur. A shallow depression containing a marginal/seasonal wetland is located on the north shoulder of the gravel driveway in the annual grassland community. The dominant plant species observed in this area was Mexican rush (*Juncus mexicanus*). The second wetland area occurs in the eastern section of the property where water enters the site through a culvert from the northeast. Flows travel south through a second culvert under an elevated driveway and immediately empty into a third culvert on the south side of the driveway that crosses Sierra College Boulevard, eventually flowing off of the property and discharging into Secret Ravine. The co-dominant species observed in this area include nutgrass (*Cyperus eragrostis*), curly dock (*Rumex crispus*), and Mexican rush.

4.0 REGULATORY BACKGROUND

4.1 SPECIAL STATUS SPECIES

Special status plants and wildlife are those species that are 1) listed as rare, threatened, or endangered by USFWS or CDFW under federal or State endangered species acts (see Section 4.1.1 & 4.1.2), 2) are on formal lists as candidates for listing as threatened or endangered, 3) are on formal lists as species of concern, or 4) are otherwise recognized at the federal, State, or local level as sensitive.

4.1.1 Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), it is unlawful to "take" any species listed as threatened or endangered. "Take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." An activity is defined as "take" even if it is unintentional or accidental. Take provisions under FESA apply only to listed fish and wildlife species under the jurisdiction of the USFWS and/or the National Oceanic & Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries). Consultation with USFWS or NOAA Fisheries is required if a project "may affect," or result in "take" of, a listed species.

When a species is listed, the USFWS and/or NOAA Fisheries, in most cases, must officially designate specific areas as critical habitat for the species. Consultation with USFWS and/or NOAA Fisheries is required for projects that include a federal action or federal funding if the project will modify designated critical habitat.

Special status plants and wildlife are those species that are 1) listed as rare, threatened, or endangered by USFWS under federal endangered species acts, 2) are on formal lists as candidates for listing as threatened or endangered, 3) are on formal lists as species of concern, or 4) are otherwise recognized as sensitive.

4.1.2 California Endangered Species Act

Under the California Endangered Species Act (CESA), it is unlawful to "take" any species listed as rare, threatened, or endangered. "Take" means to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA take provisions apply to fish, wildlife, and plant species. Take may result whenever activities occur in areas that support a listed species. Consultation with CDFW is required if a project will result in "take" of a listed species.

Special status plants and wildlife are those species that are 1) listed as rare, threatened, or endangered by CDFW under State endangered species acts, 2) are on formal lists as candidates for listing as threatened or endangered, 3) are on formal lists as species of concern, or 4) are otherwise recognized as sensitive.

4.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits actions that will result in "take" of migratory birds, their eggs, feathers, or nests. "Take" is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof.

Migratory birds are also protected, as defined in the MBTA, under Section 3513 of the California Fish and Game Code. In addition, Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird, except as otherwise provided by the California Fish and Game Code or other regulation.

4.2 JURISDICTIONAL WATERS

4.2.1 Army Corps of Engineers Jurisdictional Waters

Under Section 404 of the Clean Water Act (CWA), the Army Corps of Engineers (ACOE) regulates the discharge of dredged or fill material into waters of the U.S. Waters of the U.S. are those waters that have a connection to interstate commerce, either direct via a tributary system or indirect through a nexus identified in the Corps regulations. In non-tidal waters, the lateral limit of jurisdiction under Section 404 extends to the Ordinary High Water Mark (OHWM) of a waterbody or, where adjacent wetlands are present, beyond the OHWM to the limit of the wetlands. The OHWM is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3). In tidal waters, the lateral limit of jurisdiction extends to the high tidal line (HTL) or, where adjacent wetlands are present, beyond the HTL to the limit of the wetlands.

Wetlands. Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for a life in saturated soil conditions."

Nonweltand waters. Nonwetland waters essentially include any body of water, not otherwise exempted, that displays an OHWM.

4.2.2 California Department of Fish and Wildlife Jurisdiction

CDFW, through provisions of Sections 1600-1616 of the State of California Code of Regulations, is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be substantially adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and the conveyance of at least ephemeral flows. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

CDFW generally includes, within the jurisdictional limits of streams and lakes, any riparian habitat present. Riparian habitat includes willows, cottonwoods, and other vegetation typically associated with the banks of a stream or lake shoreline. In most situations, wetlands associated with a stream or

lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFW jurisdiction based on riparian habitat will automatically include any wetland areas. CDFW has not defined wetlands for jurisdictional purposes. Wetlands not associated with a lake, stream, or other regulated area are generally not subject to CDFW jurisdiction.

4.2.3 Regional Water Quality Control Board

Under Section 401 of the CWA, the State Water Resources Control Board must certify all activities requiring a 404 permit. The RWQCB regulates these activities and issues water quality certification for those activities requiring a 404 permit. In addition, the RWQCB has authority to regulate the discharge of "waste" into waters of the State pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne).

4.3 CITY OF ROCKLIN OAK TREE PRESERVATION GUIDELINES AND ORDINANCE

Chapter III.B of the City of Rocklin Oak Tree Preservation Guidelines contains necessary steps for tree removal activities on undeveloped property. The tree ordinance provides definitions for protected trees (including heritage trees), procedures for obtaining tree removal permits, and requirements for tree replacement.

5.0 SPECIAL STATUS SPECIES AND SENSITIVE HABITATS

5.1 REGIONAL SPECIES AND SENSITIVE HABITATS

Special status species that were observed or determined likely to occur on the property are discussed below. The mixed oak woodland would be classified as a sensitive habitat and the individual oak trees are protected per the City's ordinance.

5.2 SPECIAL STATUS PLANTS

No special status plant species were observed during the field survey on September 3, 2015. As a result, special status plant species are considered absent from the project site.

The project site is not located within critical habitat for any special status plants.

5.3 SPECIAL STATUS WILDLIFE

Species that require specific habitat not present in the vicinity of the property were eliminated as potentially occurring and are not discussed further. Special status species that were determined likely to occur on the property, or otherwise warrant further discussion, are discussed below.

5.3.1 Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is a State candidate threatened species. Habitat for the bat includes oak woodlands and distribution is strongly correlated with the availability of large open caves/rooms, where they differ from most bat species in that they do not tuck themselves into cracks and crevices. The oaks on the property do not have the right type/size of leaf to provide roosting habitat and it's unlikely that the trees provide suitable cavity nest sites. Bat use of the site is likely limited to foraging. No bats or sign (e.g. guano, urine staining) were observed during the 2015 survey, however, focused surveys were not conducted. Due to the presence of potential foraging habitat and a known occurrence within 10 miles of the property, there is a low potential for Townsend's big-eared bat to occur on the property.

5.3.2 Grasshopper Sparrow

The grasshopper sparrow (*Ammodramus savannarum*) is a State species of special concern. Grasshopper sparrows are a furtive bird of open grasslands and forage for insects (primarily grasshoppers) on the ground. Their nests are composed of grass stems and blades, very well concealed, and usually have a side entrance. Suitable foraging and nesting habitat is present within the property; however, there is no known occurrence within 10 miles of the property, and the annual grasslands have been heavily grazed. Grasshopper sparrow is considered absent from the property.

5.3.3 Western Burrowing Owl

The western burrowing owl (*Athene cunicularia*) is a State species of special concern. Burrowing owls occur in warmer valleys, open grasslands, deserts, and scrublands associated with agriculture and urban areas that support populations of California ground squirrels. Burrowing owls nest below ground, utilizing abandoned burrows of other species, most commonly ground squirrel burrows, and feed on insects and small mammals.

No suitable nesting areas (burrows 4 inches in diameter or greater) occur on the property and the open area within the grassland habitat is too small to support burrowing owls, however, this species is known to be locally migratory and potential habitat is present on the property. No burrowing owl or associated sign (e.g., whitewash, pellets) were observed on the property during the field survey. Burrowing owl is considered absent from the property.

5.3.4 Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is a State threatened species. Swainson's hawks are long distance migrants, wintering primarily in South America, returning north to breed. Swainson's hawks are large, broad-winged hawks that occur in open country throughout the western half of the United States. In California, Swainson's hawks occur in the northeastern portion of the state, in the Great Basin Province, and in the Central Valley. They return to the Central Valley in mid-March and begin migrating south in August. Nests are built in the tops of large trees, primarily those associated with riparian habitats. Home ranges maintained by Swainson's hawks for foraging average about 6,800 acres and range from 830 acres to 21,500 acres (Estep 1989). They are known to forage up to 10 miles from their nest sites.

Although Swainson's hawk is known to inhabit mixed oak woodlands, the canopy within the property is too dense to support foraging or nesting. The CNDDB contains one record for Swainson's hawk within 10 miles of the property; however, no Swainson's hawk or associated sign was observed during the field survey. Swainson's hawk is considered absent from the property.

5.3.5 White-tailed kite

The white-tailed kite (*Elanus leucurus*) is fully protected under California Fish and Wildlife Code and the Migratory Bird Treaty Act. This raptor species uses scattered trees for breeding, and open grasslands and marshes for foraging.

Although the white-tailed kite is known to nest in mature valley oak trees, the canopy cover within the oak woodland is too dense and the open area within the grassland is too small to provide suitable foraging and nesting habitat for this species. There are no CNDDB records for white-tailed kites within 10 miles of the property and this species was not observed on the property during the initial survey in 2015. This species is considered absent from the property.

5.3.6 Western Spadefoot

The western spadefoot (*Spea hammondi*) is a State species of special concern. The western spadefoot ranges from Redding south throughout the Great Valley and its associated foothills, through the South Coast Ranges into coastal southern California and west of the Peninsular mountains, into northwest Baja California.

The property is located within the known range for western spadefoot. This species typically occurs in grasslands and vernal pool complexes located on the valley floor and lower slopes of the foothills. There are four CNDDB records for western spadefoot within 10 miles of the property, the closest of which is approximately 6.5 miles southwest in a unnamed tributary to Pleasant Grove Creek, however, the seasonal wetlands on the property are not depressional and therefore not suitable for spadefoot. The western spadefoot is considered absent from the property.

5.3.7 Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphus*) is a federally threatened species. VELB are dependent on the host plant, Mexican elderberry (*Sambucus nigra ssp. caerulea*), which is a common component of Central Valley riparian forests. VELB is typically found in mature riparian vegetation associated with large river systems, but its range extends from the valley floor to 3,000 feet in elevation.

An elderberry shrub was observed in the southwest corner of the property during the general field survey. The observed shrub contained four stems ranging from 1-3 inches in diameter; three stems ranging from 3-5 inches in diameter, and one stem greater than 5 inches in diameter. All stems were measured at ground level. Exit holes were observed on the shrub. During a subsequent survey in June 2017 it was observed that the condition of the shrub had deteriorated substantially such that only the bottom 3-4 feet of the largest stem was still alive.

There is one record in the CNDDB for VELB within 10 miles of the property, located approximately 0.5 miles southwest. Since an elderberry shrub with stems greater than 1 inch in diameter and exit holes are present on the property, VELB is considered potentially present.

5.4 JURISDICTIONAL WATERS

A total of 0.023 acres of potential seasonal wetlands and other waters of the U.S. were identified in the north shoulder of the gravel driveway and in the eastern section of the property (see Figure 5). The seasonal wetlands are poor in quality, consisting of disturbed seasonal wetlands associated with roadside runoff from Sierra College Boulevard and the Interstate 80 eastbound off-ramp.

Wetlands on the project site were dominated by hydrophytes including, but not limited to, Mexican rush, irisleaf rush, pale spikerush (*Eleocharis macrostachya*), and nutgrass. Consequently, the ACOE vegetation criterion for wetlands is met.

Soils exhibited indicators of previous inundation sufficient to meet the ACOE criteria for wetlands hydrology and soils.

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- Biological Study Area - (6.64 ac)
- Wetland Waters of the State - (0.023 ac)
- Data Point
- Culvert

0 75 150
FEET

FIGURE 5

4660 Sierra College Boulevard Commercial Development
Rocklin, Placer County, California

Potential Jurisdictional Waters

SOURCE: Basemap - DigitalGlobe (6/2011); Mapping - LSA Associates, Inc. (2015)

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6.0 IMPACTS AND MITIGATION

This section provides an analysis of impacts that may occur with development of the property and the recommended mitigation measures for offsetting those impacts. The evaluation of impacts is based on the resources present, or reasonably likely to be present on the property, and the proposed development as described herein.

6.1 IMPACT EVALUATION

6.1.1 Plant Communities and Associated Wildlife

Impacts to both oak woodland and annual grassland plant communities and associated wildlife will occur as a result of development of the property. Wildlife using this area will be displaced to adjacent habitat (to the south), ultimately leading to locally reduced wildlife populations. Impacts to wildlife may be greater if work begins in spring, when many species are breeding/nesting. The loss of habitat in this region will contribute to the regional cumulative loss of wildlife habitat, including habitat for special status species.

The loss of roosting and foraging habitat for special status species is discussed in more detail in the following sections of the report.

6.1.2 Tree Removal

A total of 3.07-acres of mixed oak woodlands (i.e., Blue Oak, Interior Live Oak, and Valley Oak,) will be impacted by development of the property. Direct impacts to this community will result in the loss of suitable nesting and foraging habitat for birds, as well as suitable habitat for small mammals (e.g., opossum, raccoon), and several common reptiles (e.g., western fence lizard).

The proposed development will involve extensive grading and disturbance of the property as construction proceeds, and will impact existing vegetation, including 306 native trees located throughout the property (refer to report from John C. Traverso, BCMA Arborist #0206-B in Appendix D). Of these 306 trees, 284 are oak trees, and 5 oak trees are classified as “heritage” trees by the City of Rocklin Oak Tree Preservation Guidelines.

6.1.3 Special Status Species

6.1.3.1 Townsend’s big-eared bats

The oaks on the property do not have the right type/size of leaf to provide roosting habitat and it’s unlikely that the trees provide suitable cavity nest sites, restricting the species use of the property to foraging. Development could result in direct impacts to foraging habitat; however, due to the small area of impact relative to the amount of foraging habitat available in the region, the loss of Townsend’s big-eared bat foraging habitat on the property is not substantial.

6.1.3.2 Valley Elderberry Longhorn Beetle

A solitary elderberry shrub was observed in the southwest corner of the property during the general field survey. The elderberry shrub is located outside of the project footprint and, therefore, will not be directly impacted by the project.

6.1.4 Jurisdictional Waters

The proposed project will result in impacts to 0.023-acre of disturbed seasonal wetlands. Direct impacts to seasonal wetlands will occur when property development begins.

6.2 MITIGATION MEASURES

LSA recommends the following mitigation measures to minimize impacts to biological resources.

6.2.1 Tree Mitigation

In accordance with the Oak Tree Preservation Guidelines and Tree Preservation Plan Permit, the following measures are recommended to mitigate impacts to trees on the project site.

1. Clearly indicate on the construction documents that oak trees not scheduled for removal will be protected from construction activities in compliance with the pertinent sections of the City of Rocklin Oak Tree Preservation Ordinance.
2. Mitigate for the removal of oak trees on the project site consistent with the requirements of the City's Oak Tree Preservation Ordinance. The applicant may elect to provide on-site mitigation in the form of planting replacement trees, provide off site replacement, dedicate land, or contribute to the Rocklin Oak Tree Preservation Fund, consistent with the requirements of the City's Oak Tree Preservation Ordinance. Should contribution to the Rocklin Oak Tree Preservation Fund, the following methodology shall be utilized.

   The project arborist shall prepare a final list of all oak trees to be removed to accommodate development of the project. The list shall include the total number of surveyed oak trees, the total number of oak trees to be removed, the total number of oak trees to be removed that are to be removed because they are sick or dying, and the total of the trunk diameters at breast height (TDBH) of all surveyed oak trees on the site in each of these categories. With this information the required mitigation fees shall be calculated using the formula provided in the Oak Tree Preservation Ordinance.

6.2.2 Special Status Species

6.2.2.1 Valley Elderberry Longhorn Beetle

Since the project will not impact the elderberry shrub, the project will not directly impact VELB; the following avoidance and minimization measures are recommended, based on the USFWS Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*), dated May 2017.

1. The area around the elderberry shrub to be avoided during construction activities will be fenced and/or flagged as close to construction limits as feasible.
2. Where feasible, ground disturbing activities will not encroach within 20 feet from the dripline of an elderberry shrub.
3. A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the elderberry shrub, and the possible penalties for noncompliance..
4. A qualified biologist will monitor the work area at project appropriate intervals to assure that all avoidance and minimization measures are implemented..
5. As feasible, all activities that could occur within 165 feet of an elderberry shrub will be conducted outside of the flight season of the VELB (March - July).
6. Trimming, if required (unlikely due to the declining health of the elderberry shrub) will occur between November and February and will avoid the removal of any branches or stems that are ≥ 1 inch in diameter. Measures to address regular and/or large scale maintenance (trimming), if necessary, should be established in consultation with the USFWS.
7. Herbicides will not be used within the drip-line of the elderberry shrub . Insecticides will not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method.
8. Mechanical weed removal within the drip-line of the shrub will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry shrub.

6.2.3 Jurisdictional Waters

1. The jurisdictional waters on the property are poor in quality, consisting of disturbed seasonal wetlands associated with roadside runoff from Sierra College Boulevard and the Interstate 80 eastbound off-ramp. Due to the poor quality of the seasonal wetlands and the small area that will be impacted (0.023 acre), no mitigation is proposed. In addition, per discussions with Kaitlyn Pascus at the ACOE, no compensatory mitigation will be required for impacts to waters of the U.S. as part of the Section 404 permitting process.

7.0 REFERENCES AND LITERATURE CITED

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APPENDIX A

CNDDB, USFWS, & CNPS LISTS

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Auburn (3812181) OR Gold Hill (3812182) OR Lincoln (3812183) OR Pilot Hill (3812171) OR Rocklin (3812172) OR Roseville (3812173))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	560	12	None	None	G2G3	S1S2	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_EN-Endangered | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Freshwater marsh | Marsh & swamp | Swamp | Wetland
Alkali Meadow	Alkali Meadow	Herbaceous	CTT45310CA	8	1	None	None	G3	S2.1	null	null	Meadow & seep | Wetland
Alkali Seep	Alkali Seep	Herbaceous	CTT45320CA	10	1	None	None	G3	S2.1	null	null	Meadow & seep | Wetland
Allium jepsonii	Jepson's onion	Monocots	PMLIL022V0	27	1	None	None	G1	S1	1B.2	BLM_S-Sensitive | USFS_S-Sensitive	Cismontane woodland | Lower montane coniferous forest | Ultramafic
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	18	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Valley & foothill grassland
Ammonitella yatesii	tight coin (=Yates' snail)	Mollusks	IMGASB0010	6	1	None	None	G1	S1	null	IUCN_VU-Vulnerable	Limestone
Andrena subapasta	an andrenid bee	Insects	IIHYM35210	5	3	None	None	G1G2	S1S2	null	null	null
Ardea herodias	great blue heron	Birds	ABNGA04010	134	1	None	None	G5	S4	null	CDF_S-Sensitive | IUCN_LC-Least Concern	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1870	3	None	None	G4	S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Coastal prairie | Coastal scrub | Great Basin grassland | Great Basin scrub | Mojavean desert scrub | Sonoran desert scrub | Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	PDAST11061	43	3	None	None	G2	S2	1B.2	BLM_S-Sensitive | USFS_S-Sensitive	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland
Banksula californica	Alabaster Cave harvestman	Arachnids	ILARA14020	1	1	None	None	GH	SH	null	null	Limestone
Banksula galilei	Galile's cave harvestman	Arachnids	ILARA14040	1	1	None	None	G1	S1	null	null	Limestone
Bombus morrisoni	Morrison bumble bee	Insects	IIHYM24460	21	1	None	None	G4G5	S1S2	null	IUCN_VU-Vulnerable	null

Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	751	44	Threatened	None	G3	S2S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland | Vernal pool | Wetland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2394	7	None	Threatened	G5	S3	null	BLM_S-Sensitive | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland
Calystegia stebbinsii	Stebbins' morning-glory	Dicots	PDCON040H0	13	1	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral | Cismontane woodland | Ultramafic
Ceanothus roderickii	Pine Hill ceanothus	Dicots	PDRHA04190	8	1	Endangered	Rare	G1	S1	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral | Cismontane woodland | Ultramafic
Chlorogalum grandiflorum	Red Hills soaproot	Monocots	PMLIL0G020	82	1	None	None	G2	S2	1B.2	BLM_S-Sensitive	Chaparral | Cismontane woodland | Lower montane coniferous forest | Ultramafic
Chloropyron molle ssp. hispidum	hispid salty bird's-beak	Dicots	PDSCR0J0D1	35	1	None	None	G2T2	S2	1B.1	BLM_S-Sensitive	Alkali playa | Meadow & seep | Wetland
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Dicots	PDONA05053	89	14	None	None	G4G5T4	S4	4.2	BLM_S-Sensitive	Chaparral | Cismontane woodland | Lower montane coniferous forest
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	619	3	None	Candidate Threatened	G3G4	S2	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive | WBWG_H-High Priority	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
Cosumnoperla hypocrena	Cosumnes stripetail	Insects	IIPLE23020	12	5	None	None	G2	S2	null	null	Aquatic
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Dicots	PDCIS020F0	31	6	None	None	G2Q	S2	3.2	null	Chaparral | Ione formation | Ultramafic
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	9	Threatened	None	G3T2	S2	null	null	Riparian scrub
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	127	14	None	None	GU	S2	2B.2	null	Valley & foothill grassland | Vernal pool | Wetland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	158	2	None	None	G5	S3S4	null	BLM_S-Sensitive | CDFW_FP-Fully Protected | IUCN_LC-Least Concern	Cismontane woodland | Marsh & swamp | Riparian woodland | Valley & foothill grassland | Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1146	3	None	None	G3G4	S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable | USFS_S-Sensitive	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
Fritillaria eastwoodiae	Butte County fritillary	Monocots	PMLIL0V060	235	1	None	None	G3Q	S3	3.2	USFS_S-Sensitive	Chaparral | Cismontane woodland | Lower montane coniferous forest | Ultramafic
Galium californicum ssp. sierrae	El Dorado bedstraw	Dicots	PDRUB0N0E7	16	4	Endangered	Rare	G5T1	S1	1B.2	SB_RSABG-Rancho Santa Ana Botanic	Chaparral | Cismontane woodland | Lower montane coniferous forest

											Garden	| Ultramafic
Gratiola heterosepala	Boggs Lake hedge-hyssop	Dicots	PDSCR0R060	94	3	None	Endangered	G2	S2	1B.2	BLM_S-Sensitive	Freshwater marsh | Marsh & swamp | Vernal pool | Wetland
Haliaeetus leucocephalus	bald eagle	Birds	ABNKC10010	318	2	Delisted	Endangered	G5	S2	null	BLM_S-Sensitive | CDF_S-Sensitive | CDFW_FP-Fully Protected | IUCN_LC-Least Concern | USFS_S-Sensitive | USFWS_BCC-Birds of Conservation Concern	Lower montane coniferous forest | Oldgrowth
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	1	None	None	G2?	S2?	null	null	Aquatic | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Monocots	PMJUN011L1	13	1	None	None	G2T1	S1	1B.2	null	Valley & foothill grassland | Vernal pool | Wetland
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Monocots	PMJUN011L2	56	1	None	None	G2T2	S2	1B.1	BLM_S-Sensitive | USFS_S-Sensitive	Chaparral | Cismontane woodland | Meadow & seep | Valley & foothill grassland | Vernal pool | Wetland
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	241	2	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive | CDFW_FP-Fully Protected | IUCN_NT-Near Threatened | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Brackish marsh | Freshwater marsh | Marsh & swamp | Salt marsh | Wetland
Lathyrus sulphureus var. argillaceus	dubious pea	Dicots	PDFAB25101	7	1	None	None	G5T1T2	S1S2	3	null	Cismontane woodland | Lower montane coniferous forest | Upper montane coniferous forest
Legenere limosa	legenere	Dicots	PDCAM0C010	78	3	None	None	G2	S2	1B.1	BLM_S-Sensitive	Vernal pool | Wetland
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	316	2	Endangered	None	G3	S2S3	null	IUCN_EN-Endangered	Valley & foothill grassland | Vernal pool | Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	425	25	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Melospiza melodia	song sparrow ("Modesto" population)	Birds	ABPBXA3010	92	1	None	None	G5	S3?	null	CDFW_SSC-Species of Special Concern	null
Navarretia myersii ssp. myersii	pincushion navarretia	Dicots	PDPLM0C0X1	14	1	None	None	G1T1	S1	1B.1	null	Vernal pool | Wetland
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Herbaceous	CTT44110CA	126	4	None	None	G3	S3.1	null	null	Vernal pool | Wetland
Northern Volcanic Mud Flow Vernal Pool	Northern Volcanic Mud Flow Vernal Pool	Herbaceous	CTT44132CA	7	5	None	None	G1	S1.1	null	null	Vernal pool | Wetland
Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	2	Threatened	None	G5T2Q	S2	null	AFS_TH-Threatened	Aquatic | Sacramento/San Joaquin flowing waters
Packera layneae	Layne's ragwort	Dicots	PDAST8H1V0	48	4	Threatened	Rare	G2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral | Cismontane woodland | Ultramafic
Pandion	osprey	Birds	ABNKC01010	482	1	None	None	G5	S4	null	CDF_S-Sensitive | CDFW_WL-	Riparian forest

haliaetus											Watch List | IUCN_LC-Least Concern	
Progne subis	purple martin	Birds	ABPAU01010	61	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Broadleaved upland forest | Lower montane coniferous forest
Spea hammondii	western spadefoot	Amphibians	AAABF02020	425	4	None	None	G3	S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened	Cismontane woodland | Coastal scrub | Valley & foothill grassland | Vernal pool | Wetland
Viburnum ellipticum	oval-leaved viburnum	Dicots	PDCPR07080	38	2	None	None	G4G5	S3?	2B.3	null	Chaparral | Cismontane woodland | Lower montane coniferous forest
Wyethia reticulata	El Dorado County mule ears	Dicots	PDAST9X0D0	25	4	None	None	G2	S2	1B.2	BLM_S-Sensitive | SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral | Cismontane woodland | Lower montane coniferous forest | Ultramafic

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2016-SLI-0028 October 07, 2015
Event Code: 08ESMF00-2016-E-00048
Project Name: 4660 Sierra College Blvd.

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2)

of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

The table below outlines lead FWS field offices by county and land ownership/project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead. Please visit our office's website (http://www.fws.gov/sacramento) to view a map of office jurisdictions.

Lead FWS offices by County and Ownership/Program

County	Ownership/Program	Species	Office Lead*
Alameda	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Alameda	All ownerships but tidal/estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO
Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO

El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
Lake	Mendocino National Forest	All	AFWO
Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)

Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal/estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Napa	All ownerships but tidal/estuarine	All	SFWO
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)
Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO

San Francisco	All ownerships but tidal/estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal/estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO
Shasta	BLM Alturas Resource Area	All	KFWO

Shasta	Caltrans	By jurisdiction	SFWO/AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO/BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)
Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
	Shasta Trinity National Forest		

Tehama	except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO
***Office Leads:**			
AFWO=Arcata Fish and Wildlife Office			
BDFWO=Bay Delta Fish and Wildlife Office			
KFWO=Klamath Falls Fish and Wildlife Office			
RFWO=Reno Fish and Wildlife Office			
YFWO=Yreka Fish and Wildlife Office			

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: 4660 Sierra College Blvd.

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2016-SLI-0028
Event Code: 08ESMF00-2016-E-00048

Project Type: DEVELOPMENT

Project Name: 4660 Sierra College Blvd.
Project Description: 6.64 acres of development for:
â¢ Three fast food restaurants (Habit Burger, Chick-Fil-A, and Del Taco) with drive-throughs and a total of 9,611 square feet;
â¢ Two fast food restaurants (Pancheros and an unassigned restaurant) without drive-throughs and a total of 4,800 square feet; and
â¢ Two auto service facilities (not yet assigned) with a total of 19,000 square feet. One of the auto service facilities is expected to have a private car wash for customers.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:

Project Coordinates: MULTIPOLYGON (((-121.20567798614502 38.79952548380652, -121.20570480823515 38.799295543699785, -121.2083977460861 38.79925373632793, -121.20932579040526 38.799299724435606, -121.20874643325806 38.79971779678058, -121.20813488960266 38.80006897565494, -121.20754480361938 38.80027382919909, -121.20697617530823 38.80042851413813, -121.20596766471863 38.80042433346851, -121.20572626590729 38.80037834608658, -121.20567798614502 38.79952548380652)))

Project Counties: Placer, CA

United States Department of Interior
Fish and Wildlife Service

Project name: 4660 Sierra College Blvd.

Endangered Species Act Species List

There are a total of 7 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	**Status**	**Has Critical Habitat**	**Condition(s)**
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
Crustaceans			
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Vernal Pool tadpole shrimp *(Lepidurus packardi)* Population: Entire	Endangered	Final designated	
Fishes			
Delta smelt *(Hypomesus transpacificus)* Population: Entire	Threatened	Final designated	
steelhead *(Oncorhynchus (=salmo) mykiss)* Population: Northern California DPS	Threatened	Final designated	
Insects			

Valley Elderberry Longhorn beetle *(Desmocerus californicus dimorphus)* Population: Entire	Threatened	Final designated	
Reptiles			
Giant Garter snake *(Thamnophis gigas)* Population: Entire	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: 4660 Sierra College Blvd.

Critical habitats that lie within your project area

There are no critical habitats within your project area.

CNPS California Native Plant Society — Rare and Endangered Plant Inventory

Plant List

30 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around **38121G2**

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Allium jepsonii	Jepson's onion	Alliaceae	perennial bulbiferous herb	1B.2	S1	G1
Allium sanbornii var. sanbornii	Sanborn's onion	Alliaceae	perennial bulbiferous herb	4.2	S4?	G3T4?
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb	4.2	S34	G4
Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	perennial rhizomatous herb	1B.1	S1	G1
Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	perennial evergreen shrub	1B.1	S1	G1
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	1B.2	S2	G2
Chloropyron molle ssp. hispidum	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S2	G2T2
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Onagraceae	annual herb	4.2	S4	G4G5T4
Claytonia parviflora ssp. grandiflora	streambank spring beauty	Montiaceae	annual herb	4.2	S3	G5T3
Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	3.2	S2	G2Q
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU

Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb	4.3	S3	G3
Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	perennial evergreen shrub	1B.2	S1	G1
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	4.2	S3	G3
Fritillaria eastwoodiae	Butte County fritillary	Liliaceae	perennial bulbiferous herb	3.2	S3	G3Q
Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	perennial herb	1B.2	S1	G5T1
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	S2	G2
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	1B.2	S1	G2T1
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Juncaceae	annual herb	1B.1	S2	G2T2
Lathyrus sulphureus var. argillaceus	dubious pea	Fabaceae	perennial herb	3	S1S2	G5T1T2
Legenere limosa	legenere	Campanulaceae	annual herb	1B.1	S2	G2
Lilium humboldtii ssp. humboldtii	Humboldt lily	Liliaceae	perennial bulbiferous herb	4.2	S3	G4T3
Navarretia myersii ssp. myersii	pincushion navarretia	Polemoniaceae	annual herb	1B.1	S1	G1T1
Navarretia nigelliformis ssp. nigelliformis	adobe navarretia	Polemoniaceae	annual herb	4.2	S3	G4T3
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	1B.1	S1	G1
Packera layneae	Layne's ragwort	Asteraceae	perennial herb	1B.2	S2	G2
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb	1B.2	S3	G3
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	2B.3	S3?	G4G5
Wyethia reticulata	El Dorado County mule ears	Asteraceae	perennial herb	1B.2	S2	G2

Suggested Citation

CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant

APPENDIX B

WILDLIFE AND PLANT SPECIES OBSERVED ON THE 4660 SIERRA COLLEGE BOULEVARD PROJECT SITE

Wildlife

Scientific Name	Common Name
Chamaea fasciata	Wrentit
Charadrius vociferous	Killdeer
Odocoileus hemionus	Mule deer
Psaltriparus minimus	Bushtit
Sceloporus occidentalis	Western fence lizard
Spinus psaltria	Lesser goldfinch
Thryomanes bewickii	Bewick's wren
Zenaida macroura	Mourning dove

Plants

Scientific Name	Common Name	Family
Albizia julibrissin	Silk tree	Fabaceae
Avena fatua	Wild oats	Poaceae
Brassica nigra	Black mustard	Brassicaceae
Bromus diandrus	Ripgut brome	Poaceae
Cedrus deodara	Deodar cedar	Pinaceae
Centaurea solstitialis	Yellow star-thistle	Asteraceae
Convolvulus arvensis	Orchard morningglory	Convolvulaceae
Cynodon dactylon	Bermuda grass	Poaceae
Cyperus eragrostis	Nutsedge	Cyperaceae
Diosypros virginiana.	Persimmon	Ebenaceae
Eleocharis macrostachya	Pale spike rush	Cyperaceae
Juncus mexicanus	Mexican rush	Juncaceae
Juncus xiphiodes	Iris leaved rush	Juncaceae
Liquidambar styraciflua	Sweetgum	Hamamelidaceae
Pinus sabiniana	Foothill pine	Pinaceae
Populus alba	White poplar	Salicaceae
Populus fremontii ssp. fremontii	Fremont's cottonwood	Salicaceae
Prunus sp.		Rosaceae
Quercus douglasii	Blue oak	Fagaceae
Quercus lobata	Valley oak	Fagaceae
Quercucs sp.	Live oak	Fagaceae
Rorippa palustris var. occidentalis	Yellowcress	Brassicaceae
Rosa californica	California wild rose	Rosaceae
Rubus ursinus	California blackberry	Rosaceae
Rumex crispus	Curly dock	Polygonaceae
Toxicodendron diversilobum	Poison oak	Anarcardiaceae
Vicia villosa	Hairy vetch	Fabaceae
Xylosma congestum	Shiny xylosma	Salicaceae

APPENDIX C

WETLAND DATA FORMS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 4660 Sierra College Blvd City/County: Rocklin / Placer Sampling Date: 9/3/15

Applicant/Owner: Sun Thomas Properties State: CA Sampling Point: 1

Investigator(s): Mike Trueblood & Stefan de Barros Section, Township, Range: S16, T11N, R7E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus mexicanus	80	Y	FACW
2. Convolvulus arvensis	1	N	UPL
3. Centaurea solstitialis	1	N	UPL
4. Rumex crispus	1	N	FAC
5. Bromus diandrus	17	N	UPL
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/2	98	7.5YR 3/4	2	C	M	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ✓ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >10

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >10

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 4660 Sierra College Blvd City/County: Rocklin / Placer Sampling Date: 9/3/15

Applicant/Owner: Sam Thomas Properties State: CA Sampling Point: 1a

Investigator(s): Mike Trueblood & Stefan de Barros Section, Township, Range: S16, T11N, R7E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Upland data point.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Bromus diandrus	100	Y	UPL
2. Convolvulus arvensis	5	N	UPL
3. Brassica nigra	5	N	UPL
4.			
5.			
6.			
7.			
8.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 1a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/2	100					Sandy-Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): >14

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >14

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 4660 Sierra College Blvd City/County: Rocklin / Placer Sampling Date: 9/3/15

Applicant/Owner: Sam Thomas Properties State: CA Sampling Point: 2

Investigator(s): Mike Truebland & Stefan de Barros Section, Township, Range: S16, T11N, R7E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus xiphoides	5	N	OBL
2. Juncus mexicanus	25	Y	FACW
3. Eleocharis macrostachya	10	N	OBL
4. Rumex crispus	20	Y	FAC
5. Cyperus eragrostis	30	Y	FACW
6. Brassica nigra	15	N	UPL
7.			
8.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: _____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	98	7.5YR 5/8	2	C	M	Sandy-Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >10

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >10

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 4660 Sierra College Blvd City/County: Rocklin / Placer Sampling Date: 9/3/15

Applicant/Owner: Sam Thomas Properties State: CA Sampling Point: 2a

Investigator(s): Mike Truebloud; Stefan de Barros Section, Township, Range: S16, T11N, R7E

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

Upland data point.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata	1	N	FACU
2.			
3.			
4.			
	1 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Vicia villosa	5	N	UPL
2. Bromus diandrus	60	Y	UPL
3. Avena fatua	5	N	UPL
4.			
5.			
6.			
7.			
8.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 2a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): ~

Water Table Present? Yes _____ No ✓ Depth (inches): >9

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >9

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX D

ARBORIST REPORT

TRAVERSO TREE SERVICE
WHEN IT HAS TO BE DONE RIGHT

September 23, 2015

Sam Thomas
Thomas Properties
3100 Oak Rd Suite #140
Walnut Creek, CA 94597
samthomas@tiogaconstruction.com

Re: Arborist Report for New Shopping Center at I-80 & Sierra College Blvd. Rocklin, CA

Dear Sam,

Per your request, the following is the arborist report for the 6.5 acre Rocklin shopping center. Per the City of Rocklin's tree preservation ordinance for undeveloped property, the report includes the following**:**

1. Tag, measure, and identify all protected trees, trees that have trunk diameters of 6" and larger at 4½ ft. above grade "TDBH". TDBH of multi-trunk trees shall be the TDBH of the largest trunk only.
2. Identify dripline locations and tree #'s on site map
3. Identify tree health and structural condition as good, fair, or poor.
4. Assess proposed improvements.
5. Based on species, age, condition, and proposed impacts, make recommendations for tree preservation.

Site Summary
The client is proposing to develop the property, located at I-80 and Sierra College Blvd., into a shopping center which would cover nearly the entirety of the site. Based on a preliminary grading plan, the density of the project, and limited landscape areas were existing trees are in poor condition, it is my opinion that tree preservation on this site would be unsuccessful without

changes in the site plans.

Limitations
The following report is based on my site visits on 9/8/15 to 9/11/15, along with the attached site plan provided by Thomas Properties. The health and structure of the trees were assessed visually from ground level. No drilling, root excavation, or aerial inspections were performed. Internal or non-detectable defects may exist, and could lead to part or whole tree failures. Due the dynamic nature of trees and their environment, it is not possible for arborists to guarantee that trees will not fail in the future.

Tree Inventory & Assessment Table
Each tree was given a numerical tag sequence from #101-407. Driplines were not measured for every tree due to density of the overlapping canopies.

DBH = Trunk diameters (in inches) were calculated from the circumference measured at 4.5' above grade.

Health & Structural Condition Rating
Dead: Dead or declining beyond chance of recovery.
Poor: Stunted or declining canopy, poor foliar color, possible disease or insect issues. Severe structural defects that may or may not be correctable. Usually not a reliable specimen for preservation.
Fair: Fair to moderate vigor. Minor structural defects that can be correctable. More susceptible to construction impacts than a tree in good condition.
Good: Good vigor, and color, with no obvious problems or defects. Generally more resilient to impacts.
Very Good: Exceptional specimen with excellent vigor, and structure. Unusually nice.

Age
Young "Y" : 0-1/5 (20%) of expected life span. High resiliency to encroachment.
Mature "M" : 1/5 - 4/5's (20%-80%) of expected life span. Moderate resiliency to encroachment.
Over Mature "OM" : > 80% of expected life span. Low resiliency to encroachment.

DI = X indicates dripline will be encroached.
CI = *Const. Impact,* L- Low, M-Moderate, or H-High potential for impact to tree.

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
101	Live Oak (Quercus sp.)	7.5, 12.5	G	G	21	22	20	13	X	H	M	Large epicormic sprouts from trunk and scaffold branches. Main trunk leans to southeast.	Remove
102	Live Oak (Quercus sp.)	8, 5.5	G	P	15	0	6	17	X	H	Y	Codominant trunks fused at base. Leaning to west.	Remove
103	Live Oak (Quercus sp.)	7, 7	F	F	5	12	20	21	X	H	M		Remove
104	Blue Oak (*Quercus douglasii*)	13.5	P	F	10	1	13	10	X	H	OM	Codominant leaders at 8'. Sparse canopy. Metal fence embedded in trunk.	Remove
105	Live Oak (Quercus sp.)	6.5, 11, 9	F	F	8	20	17	12	X	H	M	Codominant leaders at 1.5'. Phototropic lean to south.	Remove
106	Live Oak (Quercus sp.)	20, 20	G	F	27	29	33	22	X	H	M	Codominant leaders at 1.5' with included bark.	Remove
107	Shiny Xylosma (*Xylosma congestum*)	4, 6	G	F	8	5	12	10	X	H	Y	Understory tree.	Remove
108	Live Oak (Quercus sp.)	11.5	F	F	0	15	18	1	X	H	M	Phototropic lean to south.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
109	Live Oak (Quercus sp.)	11	F	G	2	13	11	6	X	H	M		Remove
110	Live Oak (Quercus sp.)	9, 8.5, 6.5	F	F-P	7	7	18	12	X	H	M	3 codominant trunks with decay and cankers in each trunk.	Remove
111	Live Oak (Quercus sp.)	11, 12.5, 9, 10	F-P	F-P	15	21	25	20	X	H	M	Codominant trunks. Wood pole in center of tree.	Remove
112	Live Oak (Quercus sp.)	6.5, 9.5, 9, 9, 9, 7.5, 8	F	F	16	16	15	18	X	H	M		Remove
113	Blue Oak (*Quercus douglasii*)	16.5	F-P	G	13	7	9	12	X	H	M	Bronzing of leaves (like early fall color). Sparse canopy. Wire embedded in trunk at 3.5'.	Remove
114	Live Oak (Quercus sp.)	4.5, 5, 9.5, 6	F-P	F	13	7	23	10	X	H	M		Remove
115	Blue Oak (*Quercus douglasii*)	16	F-P	G	9	18	21	10	X	H	M	Sparse canopy.	Remove
116	Live Oak (Quercus sp.)	10	F	F	20	12	3	7	X	H	M	Codominant leaders at 7'.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
117	Blue Oak (*Quercus douglasii*)	12	F	F	7	12	11	10	X	H	M	Metal wire in trunk, also girdling tree at 6'.	Remove
118	Live Oak (Quercus sp.)	6, 6	F	F	16	6	8	16	X	H	M	Codominant leaders at 2' with included bark. Phototropic lean to north.	Remove
119	Live Oak (Quercus sp.)	5, 5, 3, 2	F	F	14	12	8	10	X	H	M		Remove
120	Live Oak (Quercus sp.)	4, 5, 4.5, 6.5	F	F	16	0	6	17	X	H	M		Remove
121	Live Oak (Quercus sp.)	6, 4	F	F	15	0	3	16	X	H	M		Remove
122	Live Oak (Quercus sp.)	5, 6	F	F	3	5	16	14	X	H	M	Not protected. Twist/crack in union between main trunks	Remove
123	Live Oak (Quercus sp.)	4, 5, 5	F	F	10	0	6	19	X	H	M	Not protected.	Remove
124	Live Oak (Quercus sp.)	4, 7	F	F	13	0	12	15	X	H	M		Remove
125	Blue Oak (*Quercus douglasii*)	11	F	F	11	3	7	9	X	H	M	Codominant leaders at 22'	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
126	Live Oak (Quercus sp.)	6	F	F	9	2	7	16	X	H	M	25° lean to west	Remove
127	Blue Oak (*Quercus douglasii*)	14	P	G	12	16	16	3	X	H	M	Significant dieback. Evidence of girdling at 7'. Sparse canopy with sprouting from trunk.	Remove
128	Live Oak (Quercus sp.)	11.5, 9	F	P	12	22	10	0	X	H	M	Extensive decay in stem. 45° lean to east.	Remove
129	Live Oak (Quercus sp.)	16	F	P	10	6	5	3	X	H	M	Large break from original leader. Trunk cankered along entire length. Highly reduced crown. Borer galleries and fungal growth on trunk. Sweeping lean to west.	Remove
130	Live Oak (Quercus sp.)	7	G	F	6	2	10	20	X	H	M	Phototropic lean to south. Decay at base of tree. Codominant leaders at 20'.	Remove
131	Live Oak (Quercus sp.)	17	G	F	4	0	24	27	X	H	M		Remove
132	Live Oak (Quercus sp.)	4, 2, 2	G	F	10	0	5	15	X	H	Y	Not protected. Sparse canopy with sprouting from trunk.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
133	Blue Oak (*Quercus douglasii*)	11.5, 8	F-P	F-P	1	10	24	24	X	H	M	Sparse canopy. Sprouting from trunk. Codominant trunks.	Remove
134	Blue Oak (*Quercus douglasii*)	19.5	P	F	20	14	18	10	X	H	M	Codominant leaders at 15' with included bark. Sparse canopy with dieback. Canker on west side of trunk has poor woundwood formation.	Remove
135	Silk tree (*Albizia julibrissin*)	12	G	F-P	13	16	13	0	X	H	M		Remove
136	Live Oak (Quercus sp.)	20.5	F	F-P	3	20	22	0	X	H	M	Many small cankers in stem. 35° lean to southeast.	Remove
137	Live Oak (Quercus sp.)	14.5, 14	F	F	13	22	16	15	X	H	M	Codominant leaders at 1'.	Remove
138	Blue Oak (*Quercus douglasii*)	12.5	P	F	6	11	12	8	X	H	M	Sparse canopy	Remove
139	Live Oak (Quercus sp.)	11	F	F	8	0	10	20	X	H	M	Depression in trunk, possibly from healed cankers.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
140	Live Oak (Quercus sp.)	14	F	F-P	10	0	10	36	X	H	M	45° sweeping bend to west. Sprouts growing from horizontal trunk.	Remove
141	Live Oak (Quercus sp.)	5, 6	F	F	10	0	5	20	X	H	M	Codominant stems at 4'. Phototropic lean to east.	Remove
142	Live Oak (Quercus sp.)	10.5	P	P	3	3	3	3	X	H	M	45° phototropic lean. Top broken, canopy consists of 3' of sprouts from trunk in each direction	Remove
143	Live Oak (Quercus sp.)	13, 13	F-P	F	1	24	32	24	X	H	M	Codominant trunks. Sparse canopy.	Remove
144	Live Oak (Quercus sp.)	24.5	F	F	26	17	26	16	X	H	M	45° corrected lean.	Remove
145	Live Oak (Quercus sp.)	14, 23.5	F	F	23	24	15	20	X	H	M	Codominant trunks. Multiple cankers in trunk are partially closed over.	Remove
146	Live Oak (Quercus sp.)	8.5	F	F	10	9	11	11	X	H	M	Codominant leaders at 7'.	Remove
147	Live Oak (Quercus sp.)	5, 5	F	F	16	15	15	14	X	H	M	Not protected. Codominant trunks.	Remove
148	Live Oak (Quercus sp.)	6, 3, 4, 4	F	F	2	20	1	12	X	H	M	Codominant trunks.	Remove
149	Live Oak (Quercus sp.)	6.5, 5, 4.5, 5	F	F	18	2	16	21	X	H	M	Codominant trunks.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
150	Fremont Cottonwood (*Populus fremontii*)	14	G-F	F	17	9	14	17	X	H	Y	3 codominant leaders at 6'.	Remove
151	Live Oak (Quercus sp.)	7	F	F	8	0	11	11	X	H	M		Remove
152	Live Oak (Quercus sp.)	5, 5	F	F	11	11	11	0	X	H	M	Not protected. Codominant trunks.	Remove
153	Live Oak (Quercus sp.)	5, 5, 4, 4	F	F	7	8	7	11	X	H	M	Not protected	Remove
154	Live Oak (Quercus sp.)	5, 4, 4	G	F	8	7	10	10	X	H	M	Not protected	Remove
155	Live Oak (Quercus sp.)	4, 2, 3	G	F	8	7	1	5	X	H	Y	Not protected	Remove
156	Live Oak (Quercus sp.)	6	F	F	13	7	0	10	X	H	M		Remove
157	Live Oak (Quercus sp.)	4, 3.5, 5...	F	F	7	7	10	11	X	H	M	Not protected. Canopy consists of 12 stems sprouting from dead original trunks.	Remove
158	Live Oak (Quercus sp.)	6	F	F	11	10	0	2	X	H	M		Remove
159	Live Oak (Quercus sp.)	5, 6	F	F	12	12	11	0	X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
160	Live Oak (Quercus sp.)	5, 3	F	F	0	0	12	10	X	H	Y	Not protected	Remove
161	Live Oak (Quercus sp.)	6, 4, 5, 4, 4, 4, 5, 3	F	F	15	12	15	15	X	H	M		Remove
162	Live Oak (Quercus sp.)	4, 12, 3	F	F	13	11	15	15	X	H	M		Remove
163	Live Oak (Quercus sp.)	6, 5	F	F	4	9	18	14	X	H	M		Remove
164	Live Oak (Quercus sp.)	8, 4, 4	F	F	4	9	13	15	X	H	M		Remove
165	Live Oak (Quercus sp.)	3, 5, 5, 3	F	F	15	0	1	12	X	H	M	Not protected	Remove
166	Live Oak (Quercus sp.)	4, 5	F	F	10	10	5	5	X	H	M	Not protected	Remove
167	Live Oak (Quercus sp.)	5, 3	G	F	5	10	8	10	X	H	M	Not protected	Remove
168	Live Oak (Quercus sp.)	6, 4, 3, 3	F	F	10	10			X	H	M		Remove
169	Live Oak (Quercus sp.)	6, 6, 7	F	F					X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
170	Live Oak (Quercus sp.)	4, 2, 2	F	F	8	10			X	H	M	Not protected	Remove
171	Live Oak (Quercus sp.)	6, 5, 3	F	F	12	10			X	H	M		Remove
172	Live Oak (Quercus sp.)	4, 5, 5, 6	F	F	16	15			X	H	M		Remove
173	Live Oak (Quercus sp.)	6, 6, 3, 4, 4	F	F				18	X	H	M		Remove
174	Live Oak (Quercus sp.)	4, 5, 2, 2, 2	F	F	10	15			X	H	M	Not protected	Remove
175	Live Oak (Quercus sp.)	6, 3	G	F	10	15		12	X	H	M		Remove
176	Live Oak (Quercus sp.)	6, 6, 3.5	G	F	16	10	13	19	X	H	M		Remove
177	Live Oak (Quercus sp.)	5, 5, 4, 5, 4	G	F	12		15	12	X	H	M	Not protected	Remove
178	Live Oak (Quercus sp.)	5, 3, 4, 5, 3, 3	F	F	10	6	13	20	X	H	M	Not protected	Remove
179	Live Oak (Quercus sp.)	5, 5, 3, 3, 5, 5, 4	G	F					X	H	M	Not protected	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
180	Live Oak (Quercus sp.)	6, 3	G	G					X	H	M		Remove
181	Live Oak (Quercus sp.)	6, 5, 3, 3, 4, 5, 5, 4, 2	G	F				18	X	H	M		Remove
182	Live Oak (Quercus sp.)	3, 4, 3, 4	G	F				16	X	H	M	Not protected	Remove
183	Live Oak (Quercus sp.)	5, 2, 2, 3	F	F					X	H	M	Not protected	Remove
184	Live Oak (Quercus sp.)	4, 3, 6	F	F			15	19	X	H	M		Remove
185	Live Oak (Quercus sp.)	7, 3, 3, 4, 4	F	F			17	16	X	H	M		Remove
186	Live Oak (Quercus sp.)	5, 3	F	F		15	15	5	X	H	M	Not protected	Remove
187	Live Oak (Quercus sp.)	5, 4, 5, 4	P	F	10	10	10	5	X	H	M	Not protected	Remove
188	Live Oak (Quercus sp.)	3, 4, 5, 4, 5, 3, 5	F	F				10	X	H	M	Not protected	Remove
189	Live Oak (Quercus sp.)	4, 4	F	F	10	10	3	10	X	H	M	Not protected	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
190	Live Oak (Quercus sp.)	5, 4, 4, 3, 6	F	F				15	X	H	M		Remove
191	Live Oak (Quercus sp.)	5, 3	F	F				12	X	H	M	Not protected	Remove
192	Live Oak (Quercus sp.)	5, 4	F	F			10	13	X	H	M	Not protected	Remove
193	Live Oak (Quercus sp.)	5, 4	F-P	F		5	12		X	H	M	Not protected	Remove
194	Live Oak (Quercus sp.)	5, 3, 6, 4	F	F					X	H	M		Remove
195	Live Oak (Quercus sp.)	2, 3, 4, 3, 3	F	F					X	H	M	Not protected	Remove
196	Live Oak (Quercus sp.)	5, 5, 5, 4	F	F					X	H	M	Not protected	Remove
197	Live Oak (Quercus sp.)	8	F	F					X	H	M		Remove
198	Live Oak (Quercus sp.)	4, 5, 2	F	F					X	H	M	Not protected. Decay at base	Remove
199	Live Oak (Quercus sp.)	6	F	F					X	H	M	Codominant leaders at 10'	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
200	Live Oak (Quercus sp.)	6, 5, 4, 5, 4, 4, 5, 4, 4, 2	F	F		12			X	H	M		Remove
201	Live Oak (Quercus sp.)	6, 6, 4, 4, 3, 3, 2, 3, 6, 4	F	F	15	10			X	H	M		Remove
202	Live Oak (Quercus sp.)	4, 3, 3, 4	F	F		15			X	H	M	Not protected	Remove
203	Live Oak (Quercus sp.)	5, 5, 3, 3, 4, 4	F	F		18			X	H	M	Not protected	Remove
204	Live Oak (Quercus sp.)	4, 2, 2, 3.5	F	F					X	H	M	Not protected	Remove
205	Live Oak (Quercus sp.)	5, 3, 3	F	F					X	H	M	Not protected	Remove
206	Live Oak (Quercus sp.)	5, 3.5	F	F		10			X	H	M	Not protected	Remove
207	Live Oak (Quercus sp.)	6	F	F		11			X	H	M	Decayed trunk with canker along its length.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
208	Live Oak (Quercus sp.)	7.5	F	F		11		15	X	H	M	Codominant leaders at 7'. Failed codominant trunk.	Remove
209	Live Oak (Quercus sp.)	8	F	F	0	15	18	7	X	H	M	35° lean to southeast. Codominant leaders at 7'.	Remove
210	Live Oak (Quercus sp.)	8	F	F			12		X	H	M		Remove
211	Live Oak (Quercus sp.)	8	F	F			25		X	H	M	Phototropic lean to south.	Remove
212	Live Oak (Quercus sp.)	9, 8, 3, 11	F	F					X	H	M	Decay at base from old trunks.	Remove
213	Live Oak (Quercus sp.)	4, 3.5	F	F					X	H	M	Not protected	Remove
214	Live Oak (Quercus sp.)	8.5	F	F					X	H	M	Codominant leaers at 8'	Remove
215	Live Oak (Quercus sp.)	9, 4, 3, 2	F	F					X	H	M		Remove
216	Live Oak (Quercus sp.)	12, 4, 4	F	F	15			13	X	H	M		Remove
217	Live Oak (Quercus sp.)	5, 4	F	F					X	H	M	Not protected	Remove
218	Live Oak (Quercus sp.)	5, 5, 5, 2, 3	F	F					X	H	M	Not protected	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
219	Live Oak (Quercus sp.)	3, 6, 4, 3, 5	F	F		16	18		X	H	M		Remove
220	Live Oak (Quercus sp.)	8, 7, 3, 4, 4, 4, 15	F	F		20			X	H	M	Extensive decay at base	Remove
221	Live Oak (Quercus sp.)	6, 3	F	F					X	H	M		Remove
222	Grey Pine (*Pinus sabiniana*)	34	G	G	25				X	H	M		Remove
223	Live Oak (Quercus sp.)	5, 5	F	F	9				X	H	M	Not protected	Remove
224	Live Oak (Quercus sp.)	9, 4, 5	F	F	13				X	H	M	Codominant trunks	Remove
225	Live Oak (Quercus sp.)	4, 4	F	F					X	H	M	Not protected	Remove
226	Live Oak (Quercus sp.)	6	F	F					X	H	M		Remove
227	Live Oak (Quercus sp.)	3, 3, 4, 2	F	F					X	H	M	Not protected. Decay at base	Remove
228	Live Oak (Quercus sp.)	4, 5, 2	F	F					X	H	M	Not protected	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
229	Live Oak (Quercus sp.)	5, 3	F	F					X	H	M	Not protected	Remove
230	Live Oak (Quercus sp.)	5, 4, 4, 4, 10	F	F					X	H	M		Remove
231	Live Oak (Quercus sp.)	5, 5, 3, 3, 6	F	F					X	H	M		Remove
232	Live Oak (Quercus sp.)	3, 5, 6	F	F					X	H	M		Remove
233	Live Oak (Quercus sp.)	6, 7, 5	F	F	13				X	H	M		Remove
234	Live Oak (Quercus sp.)	5, 5, 5	F	F					X	H	M	Not protected	Remove
235	Live Oak (Quercus sp.)	6, 3, 5, 4	F	F					X	H	M		Remove
236	Live Oak (Quercus sp.)	7, 5, 6, 3, 4, 3, 4, 6, 3, 3, 2	F	F				15	X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
237	Live Oak (Quercus sp.)	15, 10, 8, 5, 4, 5, 3, 2, 2	G	F				18	X	H	M		Remove
238	Live Oak (Quercus sp.)	10, 4, 4, 3, 5	F	F				18	X	H	M		Remove
239	Live Oak (Quercus sp.)	8, 2, 4, 3, 2, 4, 5, 6, 4, 4, 6, 2, 3, 3, 3	G	F			18	20	X	H	M		Remove
240	Live Oak (Quercus sp.)	6	F	F					X	H	M		Remove
240	Live Oak (Quercus sp.)	4, 10, 15	F	F					X	H	M		Remove
242	Live Oak (Quercus sp.)	6, 3, 3, 2	F	F					X	H	M		Remove
243	Live Oak (Quercus sp.)	7, 6	F	F					X	H	M		Remove
244	Live Oak (Quercus sp.)	10, 4, 5, 4, 3	F	F					X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
245	Live Oak (Quercus sp.)	2.5, 6	F	F					X	H	M		Remove
246	Live Oak (Quercus sp.)	6, 5, 5, 4, 3, 3	F	F				15	X	H	M		Remove
247	Live Oak (Quercus sp.)	6, 4	F	F		5			X	H	M		Remove
248	Live Oak (Quercus sp.)	6	F	F	14	10			X	H	M	Twisted trunk.	Remove
249	Live Oak (Quercus sp.)	6, 6	F	F	12			12	X	H	M	Codominant leaders at 2'.	Remove
250	Live Oak (Quercus sp.)	5, 5, 3, 2, 2	F	F	0	9	14	11	X	H	M	Not protected	Remove
251	Live Oak (Quercus sp.)	6, 7, 5, 5, 4	P	F	19	13	12	18	X	H	M		Remove
252	Live Oak (Quercus sp.)	3, 6	F	F		10	7		X	H	M		Remove
253	Live Oak (Quercus sp.)	6	F	F	10	11			X	H	M		Remove
254	Live Oak (Quercus sp.)	6	F	F	8			11	X	H	M		Remove
255	Live Oak (Quercus sp.)	6, 5, 4, 4	F	F				13	X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
256	Live Oak (Quercus sp.)	4, 5, 3	F	F				10	X	H	M	Not protected	Remove
257	Live Oak (Quercus sp.)	6, 5, 5, 3, 3	F	F			14	10	X	H	M		Remove
258	Live Oak (Quercus sp.)	7, 6, 9, 5, 3, 2, 3, 3	F	F	16				X	H	M		Remove
259	Live Oak (Quercus sp.)	5, 6, 4, 3	F	F	11		12	17	X	H	M		Remove
260	Live Oak (Quercus sp.)	6, 7	F	F			13	16	X	H	M		Remove
261	Live Oak (Quercus sp.)	6, 4, 5	F	F		12			X	H	M		Remove
262	Live Oak (Quercus sp.)	6, 5, 7, 4, 3, 2, 2, 5, 3, 3, 2, 6	F	F		13	16		X	H	M		Remove
263	Live Oak (Quercus sp.)	6, 2, 2	F	F	11	9			X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
264	Live Oak (Quercus sp.)	4, 8, 10, 3, 3	F	F	15				X	H	M		Remove
265	Live Oak (Quercus sp.)	8	F	F	13				X	H	M		Remove
266	Live Oak (Quercus sp.)	4, 4, 4, 3	P	F					X	H	M	Not protected	Remove
267	Live Oak (Quercus sp.)	4, 6	F	F	14				X	H	M		Remove
268	Grey Pine (*Pinus sabiniana*)	15	G	G	13			12	X	H	M		Remove
269	Live Oak (Quercus sp.)	6, 6, 4, 5	F	F					X	H	M		Remove
270	Live Oak (Quercus sp.)	7, 6, 4, 3	F	F					X	H	M		Remove
271	Live Oak (Quercus sp.)	3, 6, 3, 5	F	F					X	H	M		Remove
272	Live Oak (Quercus sp.)	7, 4, 3, 3, 4, 3, 5, 7, 4	F	F					X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
273	Live Oak (Quercus sp.)	10, 4, 4, 4, 2	F	F					X	H	M		Remove
274	Live Oak (Quercus sp.)	8, 3, 3, 3	F	F					X	H	M		Remove
275	Live Oak (Quercus sp.)	6, 5, 3, 2	F	F					X	H	M		Remove
276	Live Oak (Quercus sp.)	5, 5, 3	F	F					X	H	M	Not protected	Remove
277	Live Oak (Quercus sp.)	6, 2, 3, 6, 3, 3, 4, 4, 3, 3, 5	F	F					X	H	M		Remove
278	Live Oak (Quercus sp.)	3, 7, 2, 5	F	F					X	H	M		Remove
279	Live Oak (Quercus sp.)	12, 14, 5, 5, 5	F	F					X	H	M		Remove
280	Live Oak (Quercus sp.)	6, 5, 3, 3	F	F					X	H	M	Failed trunk	Remove
281	Live Oak (Quercus sp.)	4, 4	F	F					X	H	M	Not protected	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
282	Live Oak (Quercus sp.)	6, 6	F	F		12	14		X	H	M		Remove
283	Live Oak (Quercus sp.)	4, 4	F	F			12	10	X	H	M	Not protected	Remove
284	Live Oak (Quercus sp.)	7, 24	F	F					X	H	M	3' long cavity	Remove
285	Live Oak (Quercus sp.)	3, 5	F	F					X	H	M	Not protected	Remove
286	Live Oak (Quercus sp.)	6, 6, 6, 3, 4, 2, 6	F	F			18		X	H	M		Remove
287	Live Oak (Quercus sp.)	5, 5, 4, 4, 3, 3, 3, 5	F	F					X	H	M	Not protected	Remove
288	Live Oak (Quercus sp.)	5, 6, 2, 2	F	F					X	H	M		Remove
289	Live Oak (Quercus sp.)	5, 3, 2, 2	F	F	13				X	H	M	Not protected	Remove
290	Live Oak (Quercus sp.)	5, 3	F	F			6	12	X	H	M	Not protected	Remove
291	Live Oak (Quercus sp.)	3, 4.5	F	F		1	9		X	H	M	Not protected	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
292	Live Oak (Quercus sp.)	3, 3, 4, 4, 3, 4	F	F		2		11	X	H	M	Not protected	Remove
293	Live Oak (Quercus sp.)	4, 3	F	F		8		8	X	H	M	Not protected	Remove
294	Live Oak (Quercus sp.)	7	F	F					X	H	M		Remove
295	Live Oak (Quercus sp.)	9, 2	F	F					X	H	M		Remove
296	Live Oak (Quercus sp.)	4, 4, 3, 3, 2, 3	F	F			10		X	H	M	Not protected	Remove
297	Live Oak (Quercus sp.)	4, 5	F	F			10		X	H	M	Not protected	Remove
298	Live Oak (Quercus sp.)	5, 13	F	F	14			16	X	H	M		Remove
299	Live Oak (Quercus sp.)	6, 6	F	F				13	X	H	M		Remove
300	Live Oak (Quercus sp.)	5, 2, 2	F	F					X	H	M	Not protected	Remove
301	Live Oak (Quercus sp.)	7	F	F	12				X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
302	Valley Oak (*Quercus lobata*)	9, 8, 4	F	F	14			15	X	H	M	Codominant leaders at 2', growing over 2 dead trunks.	Remove
303	Live Oak (Quercus sp.)	8.5, 8	P	F					X	H	M	Failed stem. Codominant trunks at 3'.	Remove
304	Live Oak (Quercus sp.)	6, 4.5	F	F					X	H	M	Very sparse canopy.	Remove
305	Live Oak (Quercus sp.)	6.5, 6, 11	F	F	10	20	15	10	X	H	M		Remove
306	Live Oak (Quercus sp.)	6.5, 4	F	F				12	X	H	M		Remove
307	Live Oak (Quercus sp.)	3.5, 6	F	F	0			3	X	H	M	Decay in trunk from dead stem.	Remove
308	Live Oak (Quercus sp.)	5, 8, 7, 3, 7, 6	F	F					X	H	M	Decay in trunk from dead stem.	Remove
309	Live Oak (Quercus sp.)	6, 3	F	F	18			17	X	H	M		Remove
310	Live Oak (Quercus sp.)	6, 3.5, 5, 4, 8, 4, 4, 6	G	F					X	H	M	Decay in trunk.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
311	Live Oak (Quercus sp.)	6, 2	F	F	14	13	19	17	X	H	M	L-bend in lower trunk.	Remove
312	Live Oak (Quercus sp.)	6, 4, 3	F	F	8		13	15	X	H	M		Remove
313	Live Oak (Quercus sp.)	5, 4, 4, 9, 8, 12	P	F	15	13	18	20	X	H	M		Remove
314	Live Oak (Quercus sp.)	8, 4, 4, 3, 4, 3, 4, 3	F	F	17				X	H	M		Remove
315	Live Oak (Quercus sp.)	6, 4	F	F		14			X	H	M	Codominant leaders at 2'.	Remove
316	Live Oak (Quercus sp.)	7, 4	P	F		10			X	H	M		Remove
317	Live Oak (Quercus sp.)	6, 4, 3	P	F					X	H	M	Decay at base. Sparse canopy.	Remove
318	Live Oak (Quercus sp.)	6, 5.5	F	F				18	X	H	M		Remove
319	Live Oak (Quercus sp.)	6, 6, 5	F	F			18	17	X	H	M		Remove
320	Live Oak (Quercus sp.)	7, 8, 3, 5	F	F	15	10	13	15	X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
321	Live Oak (Quercus sp.)	6, 5, 7, 5, 6, 4.5	F	F					X	H	M	Twisted trunks with decay from failed stem.	Remove
322	Live Oak (Quercus sp.)	18.5, 15.5	P	F-P	17	12	16	21	X	H	OM	Codominant leaders at 3' with included bark. Very sparse canopy with poor growth. Large 2' long wound from failure of north stem.	Remove
323	Grey Pine (*Pinus sabiniana*)	15	G	G	17	12	16	21	X	H	M		Remove
324	Grey Pine (*Pinus sabiniana*)	8	G	G		12			X	H	M		Remove
325	Live Oak (Quercus sp.)	15, 4	P	F					X	H	M		Remove
326	Live Oak (Quercus sp.)	6, 6, 6	F	P					X	H	M	Decay at base. Phototropic lean to southwest.	Remove
327	Live Oak (Quercus sp.)	6, 5, 3	F	F					X	H	M		Remove
328	Live Oak (Quercus sp.)	6, 3, 4	F	F			12	13	X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
329	Live Oak (Quercus sp.)	12, 6	F	F			16	18	X	H	M		Remove
330	Live Oak (Quercus sp.)	4, 3, 8	F	F	10				X	H	M		Remove
331	Live Oak (Quercus sp.)	6, 5, 3, 3, 10	F	F					X	H	M		Remove
332	Live Oak (Quercus sp.)	3, 3, 13, 9	F	F				20	X	H	M	Lean to south. Sprouting from trunk. Codominant leaders at 5' with included bark. Decay in north trunk.	Remove
333	Grey Pine (*Pinus sabiniana*)	13, 4	F	F	11	19		20	X	H	M		Remove
334	Live Oak (Quercus sp.)	5, 4, 3, 3, 9	F	F	18	10	17	14	X	H	M		Remove
335	Live Oak (Quercus sp.)	6	F	F	0	0	13	12	X	H	M		Remove
336	Live Oak (Quercus sp.)	6, 6	F	F	10	11	12	11	X	H	M	Codominant trunks.	Remove
337	Live Oak (Quercus sp.)	6, 9, 6, 5	F	F	19	11	18	16	X	H	M		Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
338	Grey Pine (*Pinus sabiniana*)	16	G	G			4		X	H	M	20° lean to north.	Remove
339	Grey Pine (*Pinus sabiniana*)	17	G	G		17	20	11	X	H	M		Remove
340	Live Oak (Quercus sp.)	13	F	F	13	6	6	30	X	H	M	Lean to west.	Remove
341	Live Oak (Quercus sp.)	6, 4	F	F	16	11	7	7	X	H	M	Leaning to west.	Remove
342	Live Oak (Quercus sp.)	6, 6	F	F	16	11	7	7	X	H	M		Remove
343	Live Oak (Quercus sp.)	8	F	F	6	0	10	11	X	H	M	Gall at base of trunk.	Remove
344	Live Oak (Quercus sp.)	11	F	F	5	9	11	10	X	H	M	Codominant leaders at 7' with included bark.	Remove
345	Grey Pine (*Pinus sabiniana*)	11	F	F	1	3	16	12	X	H	M	Leaning to south.	Remove
346	Grey Pine (*Pinus sabiniana*)	8	F	F	1	11	10	0	X	H	M	Leaning to south. Cankers on trunk with abundant pitch.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
347	Grey Pine (*Pinus sabiniana*)	7	F	F	1	8	12	8	X	H	M	Leaning to south.	Remove
348	Live Oak (Quercus sp.)	17	F	F	14	12	18	6	X	H	M	Large canker at base from death of second trunk. Canker on west side of trunk. Minor to moderate dieback.	Remove
349	Live Oak (Quercus sp.)	3, 2, 12	F	F	15	13	16	13	X	H	M	Decay in stems.	Remove
350	Live Oak (Quercus sp.)	7	G	F	10	5	11	11	X	H	M	Growing in fence.	Remove
351	Live Oak (Quercus sp.)	34.5	F-P	F	25	27	22	18	X	H	M	Codominant leaders at 6' with included bark. Sparse canopy.	Remove
352	Live Oak (Quercus sp.)	31	F	F	30	24	28	20	X	H	M	On fence line. Wire and board in trunk.	Remove
353	Persimmon (*Diosypros* sp.)	10	G	F	12	10	11	10	X	H	M	Codominant leaders at 6' with included bark.	Remove
354	Live Oak (Quercus sp.)	12, 7, 5, 12	F	F			16	13	X	H	M		Remove
355	Live Oak (Quercus sp.)	20	F	F			20		X	H	M	Growing in fence. Decay in trunk.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
356	Live Oak (Quercus sp.)	12	G	F			20		X	H	M		Remove
357	Live Oak (Quercus sp.)	12, 4, 4	G	F	13			15	X	H	M		Remove
358	Live Oak (Quercus sp.)	12, 4	G	F	14				X	H	M		Remove
359	Fremont Cottonwood (*Populus fremontii*)	13, 14, 24, 36	F	P	22	25	18	20	X	H	M	4 codominant stems with decay.	Remove
360	Live Oak (Quercus sp.)	6	F	F	0	12	15	4	X	H	M	Leaning to south.	Remove
361	Valley Oak (*Quercus lobata*)	12, 6	F	P	7	10	15	17	X	H	M	3 codominant trunks, one of which fell to south (it is still alive but was not included)	Remove
362	Live Oak (Quercus sp.)	18	G	F	16			16	X	H	M	Multiple codominant leaders at 6'.	Remove
363	Live Oak (Quercus sp.)	6	F	P	16			12	X	H	M	Phototropic lean to north.	Remove
364	Live Oak (Quercus sp.)	6, 4	F	F					X	H	M		Remove
365	Live Oak (Quercus sp.)	8, 7, 10	F	P	18	10	10		X	H	M	Leaning to north.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
366	Fremont Cottonwood (*Populus fremontii*)	7, 14	G	P	19	18			X	H	M	Second trunk is sprouting from fallen leader.	Remove
367	Live Oak (Quercus sp.)	6, 8	F	F					X	H	M	Codominant leaders at 2' with included bark.	Remove
368	Live Oak (Quercus sp.)	16	F	G		20			X	H	M		Remove
369	Live Oak (Quercus sp.)	19	F	G		25	20		X	H	M		Remove
370	Live Oak (Quercus sp.)	12	F	F	11	17			X	H	M	Leaning to east. Codominant leaders at 7'.	Remove
371	Live Oak (Quercus sp.)	14, 17	G	F-P		26	18	18	X	H	M	Codominant trunks. 40° lean in east stem.	Remove
372	Live Oak (Quercus sp.)	18, 12, 22	G	F	18	20	23	25	X	H	M	Codominant trunks with included bark in west trunk.	Remove
373	Live Oak (Quercus sp.)	6, 16	G	F	23	20	13	10	X	H	M		Remove
374	Live Oak (Quercus sp.)	7, 6	F	F	7	12	16	5	X	H	M		Remove
375	Live Oak (Quercus sp.)	4, 6	F	F	0	11	15	10	X	H	M	Leaning to south.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
376	Live Oak (Quercus sp.)	8	F	F	14	0	12	16	X	H	M		Remove
377	Live Oak (Quercus sp.)	42	F	F-P	28	15	26	23	X	M	M	Tree is within 30' of proposed driveway and within 8' of unknown improvements. One area where tree preservation would be possible. Thought about saving this tree, however, there is significant decay in the lower trunk and the canopy is somewhat sparse. Making it unreliable to retain.	Remove
378	Live Oak (Quercus sp.)	6, 4	G	F	10	10	8	5	X	H	Y		Remove
379	Live Oak (Quercus sp.)	6, 4, 6, 6, 5, 5	G	G-F	14	10	13	12	X	H	M	Canopy consists of sprouts from dead original tree.	Remove
380	Live Oak (Quercus sp.)	12, 17, 11, 14	F	F	21	15	10	18	X	H	M	Sparse canopy.	Remove
381	Live Oak (Quercus sp.)	31	P	F	23	16	21	19	X	H	M	Very sparse canopy. Codominant leaders at 6'.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
382	Valley Oak (*Quercus lobata*)	11, 6	G	F	11	8	6	7	X	H	Y	Codominant trunks.	Remove
383	Valley Oak (*Quercus lobata*)	46	F	F	30	18	29	29	X	H	M	Dieback at top. Metal chain in trunk at 2.5'.	Remove
384	Live Oak (Quercus sp.)	7, 3	P	F	12	10	10	12	X	H	Y		Remove
385	Valley Oak (*Quercus lobata*)	12, 6	G	F	13	10	11	10	X	H	Y	Codominant leaders at 4' with included bark.	Remove
386	White Poplar (*Populus alba*)	6, 5, 4	G	F-P	12	15	11	12	X	H	M		Remove
387	Live Oak (Quercus sp.)	10	G	G	10	10	10	10	X	H	Y		Remove
388	Fremont Cottonwood (*Populus fremontii*)	23, 48	F	F	38	30	31	30	X	H	M	Codominant trunks.	Remove
389	Live Oak (Quercus sp.)	8, 8, 6	G	G	14	10	10	10	X	H	M		Remove
390	Live Oak (Quercus sp.)	8	F	F	5	1	15	12	X	H	Y	35° lean to south.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
391	Live Oak (Quercus sp.)	6, 5, 4, 5, 5	F	F	10	8	10	11	X	H	M		Remove
392	Live Oak (Quercus sp.)	4, 6	F	F	8	10	9	1	X	H	M		Remove
393	Live Oak (Quercus sp.)	6, 5	F	F	10	15	11	12	X	H	Y		Remove
394	Live Oak (Quercus sp.)	6, 3	F	F	11	9	3	10	X	H	Y		Remove
395	Live Oak (Quercus sp.)	13	F	F	6	12	14	10	X	H	M		Remove
396	Sweet Gum (*Liquidambar styraciflua*)	13	F-P	F	10	10	10	10	X	H	M	Dead top. Dieback and early fall color.	Remove
397	Deodar Cedar (*Cedrus deodara*)	15	G	G	10	10	10	10	X	H	Y		Remove
398	Deodar Cedar (*Cedrus deodara*)	17	G	F	15	16	16	15	X	H	M	Corrected lean at base. Girdling root.	Remove
399	Deodar Cedar (*Cedrus deodara*)	21	G	G	15	15	15	15	X	H	M	Trunk girdled at 4.5'.	Remove

#	Species	DBH	Health	Structure	Dripline N	Dripline E	Dripline S	Dripline W	DI	CI	Age	Comments	Action
400	Live Oak (Quercus sp.)	10, 13, 11	F	F	12	12	11	15	X	H	M	3 codominant trunks with included bark.	Remove
401	Live Oak (Quercus sp.)	12, 11	F	F	12	15		19	X	H	M	Growing between 2 chainlink fences.	Remove
402	Live Oak (Quercus sp.)	10	F	G					X	H	M		Remove
403	Live Oak (Quercus sp.)	7, 11	F	F		18		17	X	H	M	Fence embedded in trunk.	Remove
404	Live Oak (Quercus sp.)	12	F	F		12			X	H	M		Remove
405	Live Oak (Quercus sp.)	13	F	F				12	X	H	M		Remove
406	Live Oak (Quercus sp.)	7, 6, 6, 7, 4	F	F		14		13	X	H	M		Remove
407	Live Oak (Quercus sp.)	6, 3, 3	G	F		10	10	10	X	H	M		Remove

Discussion
The condition of the trees on the property ranges from poor to good, with Live Oak (Quercus sp.) comprising the majority of the trees. Many of the trees have grown multiple stems from a single root system and were prone to decay where original trunks had failed.

Since the proposed shopping center encompasses the entire site, tree preservation would be difficult with inadequate protections zones available. Of the trees outside of the building & driveway footprints, only tree #377, a 42" oak, looked like a potential for retention. However, the limited protection zone (25-30' radius) combined with extensive decay at the base and a somewhat sparse canopy, made our best prospect unreliable for preservation

Based on the information I have at this time, it is my opinion that all the trees would need to be removed.

Thank you for the opportunity to provide this assessment and please feel free to contact me if there are any questions or concerns.

Sincerely,

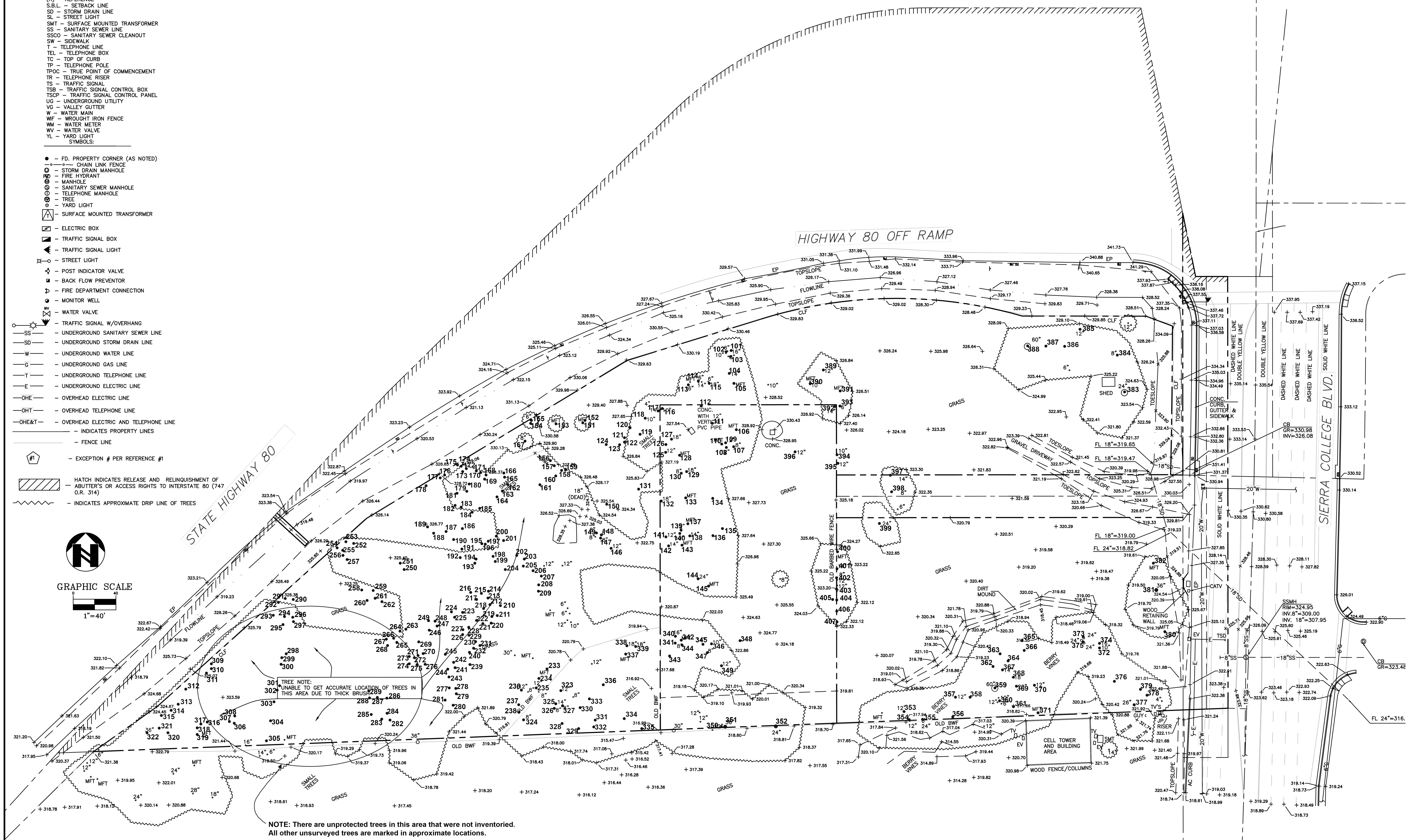
John C Traverso
ISA-BCMA Arborist #WE 0206-BT
ISA Qualified Tree Risk Assessor #994

ABBREVIATIONS:

AC – ASPHALT CONCRETE
BFP – BACKFLOW PREVENTOR
BWF – BARBED WIRE FENCE3
CA – CABLE
CB – CATCH BASIN
C.I. – CURB INLET
CL – CENTER LINE
CLF – CHAIN LINK FENCE
CONC – CONCRETE
CWB – CROSS WALK BUTTON
DDCV – DOUBLE DETECTOR CHECK VALVE
D.I. – DROP INLET
DWY – DRIVEWAY
E – ELECTRIC LINE
EB – ELECTRIC BOX
EM – ELECTRIC METER
EP – EDGE OF PAVEMENT
EV – ELECTRIC VAULT
FC – FACE OF CURB
FDC – FIRE DEPT. CONNECTION
FH – FIRE HYDRANT
FL – FLOWLINE
G – GAS LINE
GM – GAS METER
GP – GUARD POST
GV – GAS VALVE
HCR – HANDICAP RAMP
IRR – IRRIGATION
ICV – IRRIGATION CONTROL VALVE
JP – JOINT POLE
JT – JOINT TRENCH
MFT – MULTI–FORKED TREE
MW – MONITORING WELL
OH – OVERHEAD UTILITY
PIV – POST INDICATOR VALVE
PG&E – PACIFIC GAS & ELECTRIC
PL – PROPERTY LINE
PLNTR – PLANTER
PP – POWER POLE
PUE – PUBLIC UTILITY EASEMENT
R/W – RIGHT OF WAY
(R) – REFERENCE
S.B.L. – SETBACK LINE
SD – STORM DRAIN LINE
SL – STREET LIGHT
SMT – SURFACE MOUNTED TRANSFORMER
SS – SANITARY SEWER LINE
SSCO – SANITARY SEWER CLEANOUT
SW – SIDEWALK
T – TELEPHONE LINE
TEL – TELEPHONE BOX
TC – TOP OF CURB
TP – TELEPHONE POLE
TPOC – TRUE POINT OF COMMENCEMENT
TR – TELEPHONE RISER
TS – TRAFFIC SIGNAL
TSB – TRAFFIC SIGNAL CONTROL BOX
TSCP – TRAFFIC SIGNAL CONTROL PANEL
UG – UNDERGROUND UTILITY
VG – VALLEY GUTTER
W – WATER MAIN
WIF – WROUGHT IRON FENCE
WM – WATER METER
WV – WATER VALVE
YL – YARD LIGHT

SYMBOLS:

– FD. PROPERTY CORNER (AS NOTED)
CHAIN LINK FENCE
– STORM DRAIN MANHOLE
– FIRE HYDRANT
– MANHOLE
– SANITARY SEWER MANHOLE
– TELEPHONE MANHOLE
– TREE
– YARD LIGHT
– SURFACE MOUNTED TRANSFORMER
– ELECTRIC BOX
– TRAFFIC SIGNAL BOX
– TRAFFIC SIGNAL LIGHT
– STREET LIGHT
– POST INDICATOR VALVE
– BACK FLOW PREVENTOR
– FIRE DEPARTMENT CONNECTION
– MONITOR WELL
– WATER VALVE
– TRAFFIC SIGNAL W/OVERHANG
– UNDERGROUND SANITARY SEWER LINE
– UNDERGROUND STORM DRAIN LINE
– UNDERGROUND WATER LINE
– UNDERGROUND GAS LINE
– UNDERGROUND TELEPHONE LINE
– UNDERGROUND ELECTRIC LINE
– OVERHEAD ELECTRIC LINE
– OVERHEAD TELEPHONE LINE
– OVERHEAD ELECTRIC AND TELEPHONE LINE
– INDICATES PROPERTY LINES
– FENCE LINE
– EXCEPTION # PER REFERENCE #1
– HATCH INDICATES RELEASE AND RELINQUISHMENT OF ABUTTER'S OR ACCESS RIGHTS TO INTERSTATE 80 (747 O.R. 314)
– INDICATES APPROXIMATE DRIP LINE OF TREES



TREE INVENTORY
By: John C Traverso
BCMA Arborist #0206-B
September 21, 2015

UTILITY NOTE:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES, PIPE SIZES AND/OR STRUCTURES SHOWN ON THIS SURVEY WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES, EXCEPT AS SHOWN ON THIS SURVEY. THE CONTRACTOR SHALL ASCERTAIN THE TRUE LOCATION OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO ANY PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREON.

DATE: 3-16-2015	REV #	BY	DATE	DESCRIPTION
SCALE: 1"=40'	△			
DESIGNED:	△			
DRAWN: CTJ	△			
CHECKED: CTJ	△			
PROJ. MGR: AS	△			
FILE PATH:				

ams associates, inc. PLANNING ENGINEERING SURVEYING
801 YGNACIO VALLEY ROAD
SUITE 220
WALNUT CREEK, CA 94596
925-943-2777 FAX 925-943-2778

ALTA SURVEY

4660 SIERRA COLLEGE BLVD
ROCKLIN PLACER CALIFORNIA

SHEET 2 OF
PROJECT 15-2249

LEGEND

TC XX.XX / FS XX.XX — TC – TOP OF CURB ELEVATION, FS – FINISHED SURFACE
XX.XX HP — HP – HIGH POINT
GR XX.XX — GR – GRATE ELEVATION
FL XX.XX — FL – FLOW LINE
—— GB —— GRADE BREAK
—— R —— RIDGE LINE
SAWCUT LINE
PROPERTY LINE
■ CATCH BASIN
● PROPOSED CLEANOUTS/ AREA DRAIN/ MANHOLE
3.0% SLOPE

GRAPHIC SCALE
0 30
1"=30'

REV #	BY	DATE	DESCRIPTION
△			
△			
△			
△			

DATE: 8-16-15
SCALE: 1"=30'
DESIGNED:
DRAWN: DL
CHECKED: AS
PROJ. MGR: AS
FILE PATH: Y:\14-2216 ROCKLIN\LATEST DATE DIRECTORY\2216GRAD.DWG

ams associates, inc.
801 YGNACIO VALLEY ROAD
SUITE 220
WALNUT CREEK, CA 94596
925-943-2777 FAX 925-943-2778
PLANNING ENGINEERING SURVEYING

GRADING PLAN
SHOPPING CENTER
4660 SIERRA COLLEGE BLVD
ROCKLIN PLACER CALIFORNIA

SHEET C-2 OF
PROJECT 15-2216