# *Technical Memorandum*

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**DATE:** March 11, 2019
**TO:** John Lipp
Friends of Alameda Animal Shelter
1590 Fortmann Road, Alameda CA 94503
**FROM:** Chris Rogers
**SUBJECT:** Burrowing Owl Habitat Assessment, 2331 North Loop Road, Alameda, CA

This technical memorandum, prepared at the request of the City of Alameda, details the methods and results of the habitat assessment for burrowing owl (*Athene cunicularia*) conducted at 2331 North Loop Road in Alameda, CA (APN: 74-1337-29) (see Figure 1). The current development plan is for construction of an animal shelter on this parcel.

The purpose of this study was to assess the site for the presence or the potential for occurrence of burrowing owl on the project parcel. Burrowing owl is listed as a species of special concern by the state of California, and is protected pursuant to Section 3503.5 of the Fish and Game Code, which prohibits the taking or destroying of nests or eggs of any bird and prohibits the taking or destroying of birds or nests of birds belonging to the order of Falconiformes (falcons, kites, and hawks) and Strigiformes (owls). Although the species has no protected status under the federal Endangered Species Act, it is afforded protection under the Migratory Bird Treaty Act (MBTA), which prohibits harming, injury, or harassment of nesting migratory birds.

Burrowing owl is a resident of annual and perennial grasslands, deserts, and scrublands characterized by low-growing vegetation[1]. Suitable owl habitat may also include trees and shrubs if the canopy covers less than 30 percent of the ground surface[2]. Burrowing owl prefers open, flat habitats where the vegetation is short. Suitable habitat includes non-native grasslands grazed by livestock[3]. The species ranges from central and coastal California throughout the southwest and much of the United States. It is mostly active during twilight and night, feeding primarily on small mammals, birds, and insects. Burrows are the essential component of burrowing owl habitat[2]. They typically occupy

[1] Zarn, M. 1974. *Burrowing Owl. Technical Note No. 11.* Bureau of Land Management, U.S. Department of the Interior. Denver Colorado.

[2] Santa Cruz Predatory Bird Research Group (SCPBRG). 2001. *Burrowing Owl Survey Protocol.* University of California, Santa Cruz. June 13.

[3] Plumpton, D. L. and R. S. Lutz. 1993. Nesting Habitat Use by Burrowing Owls in Colorado. The Journal of Raptor Research 27 (4):175-179.

**Exhibit 4**
**Item 7-A, June 10, 2019**
**Planning Board Meeting**

burrows excavated by burrowing mammals such as California ground squirrel (*Spermophilus beecheyi*) and American badger (*Taxidea taxus*). Burrowing owls have been known to utilize manmade cover-sites such as cement culverts, rubble piles, openings beneath paved surfaces, and artificial dens[4].

## Methods

### Background Information

Before the field survey was conducted, records of recent or historical observations of burrowing owls in or near Alameda were reviewed. No recent observation have been documented in Alameda; the nearest recent siting was at McLaughlin-Eastshore State Park, approximately 11.5 miles north-northwest of the project site[5]. The California Natural Diversity Database (CNDDB) includes a 1983 record (Occurrence #19) centered on what is currently South Loop Road, approximately 0.6 mile southeast of the project site. Another record was documented that same year at a location near Pardee Lane and Edgewater on the east side of San Leandro Bay Drive (occurrence #52), 2.35 mile east-northeast of the project site[6]. Although presumed extant by the CNDDB, both areas are substantially more developed than when the observations were recorded. More recently, observations of burrowing owls in and near Alameda are more common in remaining open space areas, such as around San Leandro Bay, on the former Naval Air Station, at Oyster Bay Regional Shoreline, and occasionally at Oakland International Airport[6].

### Field Survey

A reconnaissance-level habitat assessment for burrowing owl was conducted by biologist Chris Rogers on March 11, 2019. The survey was conducted between the hours of 0930 and 1200. The entire project site was initially scanned with binoculars to identify any burrowing owl(s) present or California ground squirrel activity. The project site was surveyed on foot and visually inspected using binoculars. Meandering transects were walked in such a way as to permit 100 percent visual coverage to search for active and inactive burrows. A search for any evidence of burrowing owl presence, such as pellets, whitewash or feathers, was conducted. In addition, suitable habitat and burrowing owl sign was surveyed for on all adjacent undeveloped lands within a 150-meter radius of the property boundary, as recommended in the *Staff Report for Burrowing Owl Mitigation*[7]. Plant and wildlife species observed or detected by sign also were recorded.

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[4] California Burrowing Owl Consortium (CBOC). 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. Tech Rep. Burrowing Owl Consortium, Alviso, California.

[5] eBird. 2019. https://ebird.org/region/US-CA-001?yr=all

[6] California Department of Fish and Wildlife. (2019). California Natural Diversity Database (CNDDB), version 5.2.14. Retrieved March 7, 2019 from https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

[7] California Department of Fish and Game (CDFG). 2012. *Staff Report on Burrowing Owl Mitigation.* Sacramento, CA.

## Description of the Study Area

### Setting

The proposed project site is a 0.45-acre parcel situated to the northwest of North Loop Road (Figure 2). It is located between an existing commercial office building to the southwest, a daycare center to the northeast, and a residential neighborhood to the northwest. The proposed project site is a small inholding of undeveloped land surrounded by office parks and warehousing that has been developed incrementally since 2004. Representative photos are attached.

The study area also includes a buffer of 150 meters surrounding the proposed project site, although the majority of this area is already developed and therefore unsuitable as burrowing habitat (see also Figure 2). A single parcel of undeveloped land situated to the west of the study area total was included in the habitat assessment.

The study area is relatively flat, with elevation averaging 13 feet above mean sea level. The soil on site is mapped as Xeropsamments, fill[8], which consists of very sandy material placed on the site to raise the soil surface above high groundwater. This type of sandy fill soil is poorly unconsolidated and does not support large burrows.

### Vegetation and Wildlife Habitat

Approximately 90 % of the proposed project site is covered with sparse herbaceous vegetation, such as annual grasses and weeds, such as slender oats (*Avena barbata*), hairy vetch (*Vicia villosa*), (*Medicago polymorpha*) and iceplant (*Carpobrotus edulis*), among others. Only one native annual herbaceous plant species, telegraph weed (*Heterotheca grandiflora*), was observed. A small portion of the site at the northern fence line is covered by the ornamental trees river redgum (*Eucalyptus camaldulensis*) and blackwood acacia (*Acacia melanoxylon*) , with medium-sized pampas grass (*Cortaderia jubata*) in the understory. The trees were inspected for nests; although no nests were observed (possibly due to relatively high ambient noise and activity levels at the adjacent daycare), these trees could provide nesting sites for songbirds. Several unpaved social trails bisect the parcel and are well-used by pedestrians, runners, and dog walkers (approximately 10 people traversed the site in one hour). The project site is bordered on the west and south by ornamental landscaping associated with the commercial office building and residential neighborhood.

The other undeveloped parcel to the west of the project site also has similar herbaceous vegetation dominated by non-native and ornamental plant species. Developed portions of the study area also support ornamental landscaping plants, and are excluded from consideration as potential burrowing owl habitat.

[8] California Soil Resource Lab, 2008. https://casoilresource.lawr.ucdavis.edu/soilweb-apps/

### Wildlife Observed

Bird species detected during the survey, and including the entire study area, were American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), black phoebe (*Sayornis nigricans*) , mallard (*Anas platyrhynchos*), mourning dove (*Zenaida macroura*), savannah sparrow (*Passerculus sandwichensis*), and white-crowned sparrow (*Zonotrichia leucophrys*). On the proecjt site, scattered burrows of Botta's pocket gopher (*Thomomys bottae*) are present, but are mostly closed at the surface and much too small to be regarded suitable for burrowing owls (see photo). One small, collapsed and unoccupied complex of ground squirrel burrows was observed on the parcel east of the project site, and outside of the study area. Several black-tailed jackrabbits (*Lepus californicus*) also were observed on this parcel.

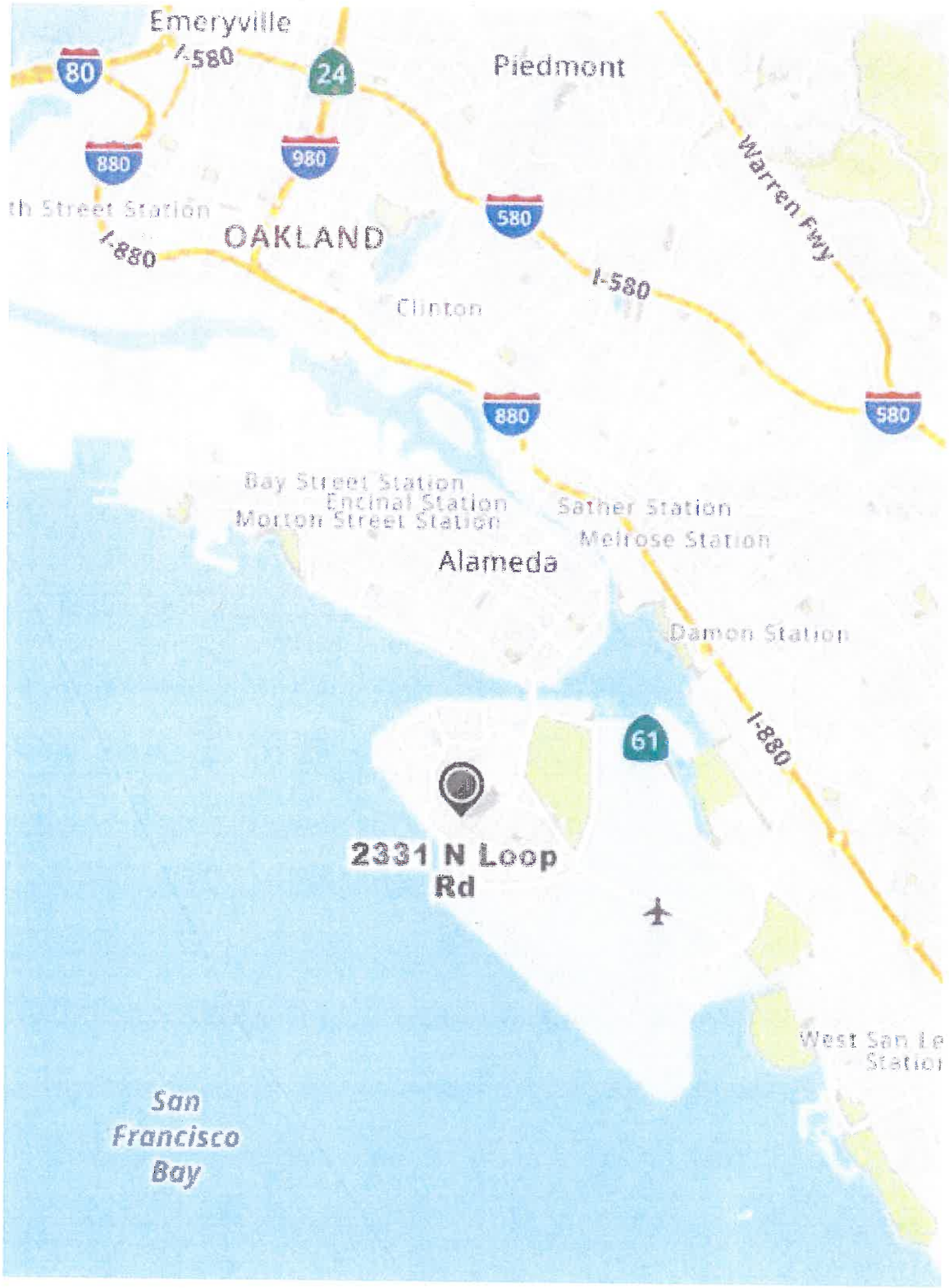
## Results and Recommendations

The study area supports weeds and grasses, and trees at the north fence line. It is periodically disked for weed control, which effectively limits the habitability for large burrowing rodents and burrowing owls. No burrowing owls were observed on the proposed project site or surrounding areas of undeveloped land that support potentially suitable habitat. No ground squirrel burrows or burrow complexes are present, although smaller pocket gopher colonies are present on site. No open or abandoned burrows of sufficient dimensions to accommodate burrowing owl are present.

Burrowing owls have not been observed in this part of Alameda for many years. The study area was subject to a burrowing owl habitat assessment in 2015 prior to the development of the adjacent commercial office building, which yielded negative results.

Based on these results, no further surveys for burrowing owls are warranted.

# Figure 1
## Project Location



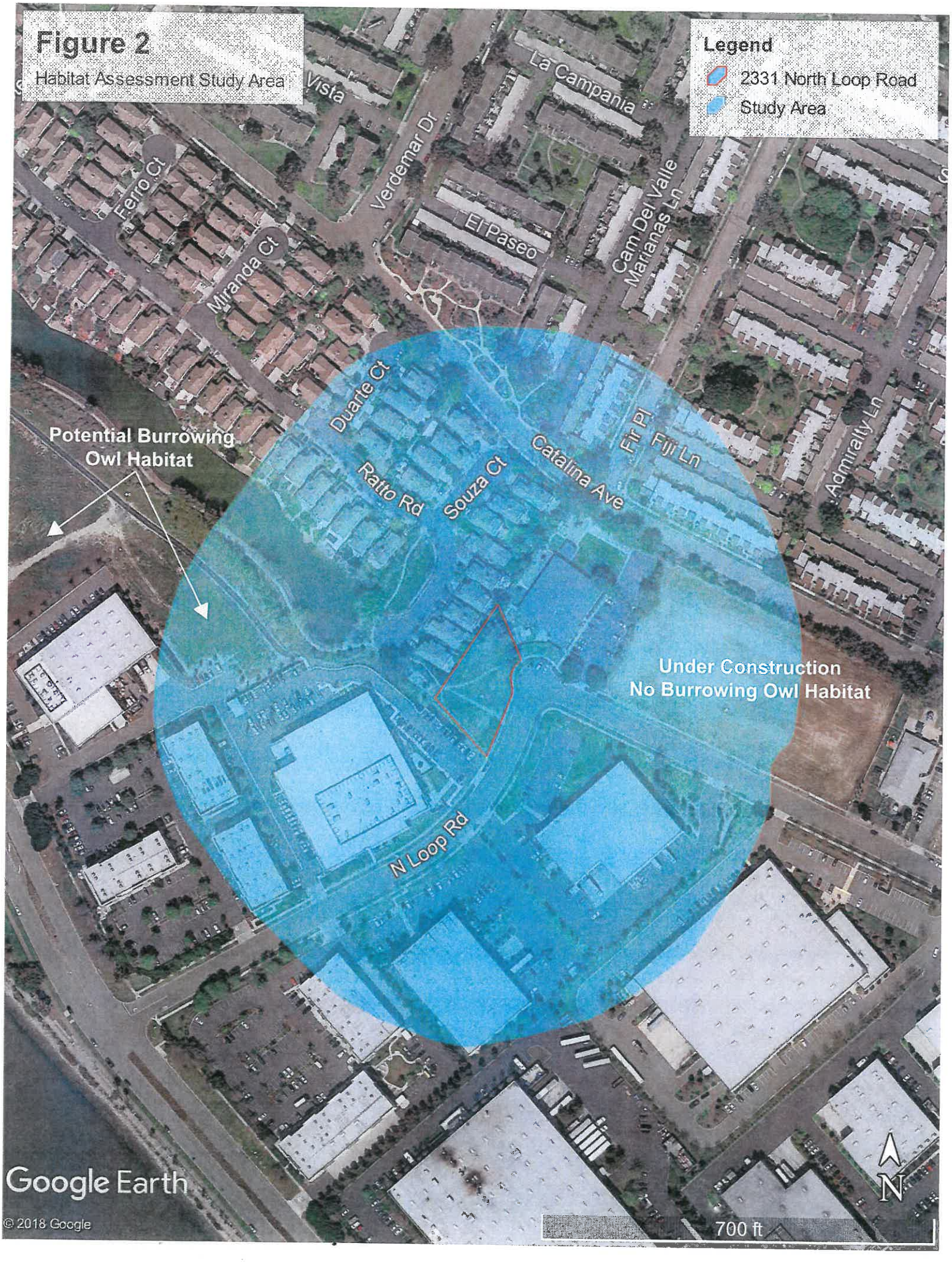


Figure 2
Habitat Assessment Study Area
Legend
2331 North Loop Road
Study Area
Vista
La Campania
Verdemar Dr
Ferro Ct
Miranda Ct
El Paseo
Cam Del Valle
Marianas Ln
Duarte Ct
Ratto Rd
Souza Ct
Catalina Ave
Fir Pl
Fiji Ln
Admiralty Ln
Potential Burrowing
Owl Habitat
Under Construction
No Burrowing Owl Habitat
N Loop Rd
Google Earth
© 2018 Google
700 ft
N

# Attachment A
# Representative Photographs

1. Overview of the project site, looking west.

2. Overview of the project site, looking north.

3. View of the project site looking east showing several social trails.

4. Small complex of pocket gopher burrows, not suitable for burrowing owl.

April 8, 2019

Andrew Thomas, Assistant Community Development Director
City of Alameda Community Development Department
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501-4477

**SUBJ: ALUC Administrative Review: Friends of the Alameda Animal Shelter (FAAS) Alameda, CA; Assessor's Parcel Number: 74-1337-29**

Dear Mr. Thomas,

Thank you for the opportunity to review a proposed Animal Shelter and Community Center located at 2331 North Loop Road in Harbor Bay. I have completed an Administrative Review of the materials provided and have the following comments for your consideration as this project moves through the approval process.

## Airport Land Use Compatibility

The Alameda County Airport Land Use Commission (ALUC) has adopted an updated Airport Land Use Compatibility Plan (ALUCP) for all three public use airports in Alameda County (the Oakland International Airport 2010, Hayward Executive Airport 2012, and Livermore Municipal Airport 2012). These documents and other reference material can be accessed online here:
http://www.acgov.org/cda/planning/generalplans/airportlandplans.htm

The project sites are located within the Airport Influence Area (AIA) for the Oakland International Airport, the nearest airport to the project location, and in other zones as noted below, and includes one parcel on North Loop Road. This review consists of an evaluation of the Project with regard to the four Airport Land Use Compatibility Planning Standards: Noise, Safety, Airspace Protection, and Overflight.

## Noise

Noise compatibility policies are established in order to prevent the development of noise-sensitive land uses in portions of the airport environ that are exposed to significant levels of aircraft noise. The project site appears to be 'straddling' two noise contours: 60 and 65 dB CNEL.

Please refer to Table 3-1 - *Noise Compatibility Criteria* in the Oakland Airport ALUCP, and Section 3.3.1.6 of the ALUCP which establishes Interior Noise Levels for various land uses. That portion of the parcel within both the 60 and 75 dB CNEL list most Commercial and Industrial uses as *Conditionally Acceptable* land uses in these zones. ***The building structures must be capable of attenuating exterior noise to the indoor CNEL of 45dB to be considered Compatible at these locations.** *

## Safety

Land use safety compatibility criteria are developed to minimize the risks to people and property on the ground, as well as those people in an aircraft in the event of an accident or emergency landing occurring outside the airport boundary.

These parcels are located within Safety Zone 6 - the Traffic Pattern Zone. Table 2-3 – *Basic Compatibility Criteria and Supporting Information* defines in general terms allowable and non-allowable land uses within the Safety Zones. Most importantly, this table describes in general terms, the likelihood of accident occurrence within each Safety Zone. ***The proposed project is considered a Compatible non-residential land use in this zone. ***

Table 3-2 – *Safety Compatibility Criteria* is a detailed table that represents specific land use types for all seven Safety Zones within the AIA for the Oakland Airport. The expected project type – low density Animal Shelter and Community Center – is a desirable land-use in this proximity to the OAK Airport North and South Field runways. ***Therefore, this is a compatible land use in this zone. ***

### Airspace Protection

Similar to safety policies, airspace protection criteria is intended to reduce the risk of harm to people and property resulting from an aircraft accident. This is accomplished by the establishment of compatibility policies that seek to prevent the creation of land use features that can be hazards to the airspace used by aircraft in flight and have the potential to cause an aircraft accident to occur. Such hazards may be physical, visual, or electronic. Please refer to Section 3.3.3.7- *Other Flight Hazards* for specific information on various types of potential hazards.

The ALUC conforms to the guidance provided by FAA Part 77 – *Objects Affecting Navigable Airspace,* which is provided in Appendix C of the Oakland Airport ALUCP - *Federal Aviation Regulations Part 77.* According to the site plans provided, the proposed roof height of the buildings is 40' Above Ground Level (AGL). The proposed building height appears to be within Part 77 standards.

While the height of the proposed buildings does not appear to exceed Part 77 surfaces, construction cranes *may* exceed Part 77 surfaces. If so, the applicant will be required to file Form 7460 – 2 *Notice of Actual Airport Construction* with the FAA. Additionally, the applicant should consult FAA Guidance regarding any lighting or features on the roofs that could impair safe navigation of flights.

> ✈ **It is the responsibility of the applicant to determine the need for filing Form 7460-2 with the FAA, and to consult the FAA Guidance regarding lighting, glare, or other building features that could interfere with safe navigation of flights.**

Should they be needed, the FAA forms can be accessed in the link to the ALUC webpage provided earlier in this letter. Please review Section 3.3.3 *Airspace Protection* and subsequent subsections, as well as *Appendix C – Federal Aviation Regulations Part 77* - in the ALUCP for more detailed descriptions of airspace requirements.

### Overflight

Overflight policies address noise from the overhead flight of aircraft, which can be annoying and intrusive in locations beyond the limits of the noise contours. Unlike other compatibility factors such as; noise, safety, or airspace protection, overflight compatibility policies do not restrict how land can be developed or used. The basic intent of overflight policies is to warn people near an airport of the presence of aircraft so that they have the ability to make informed decisions regarding acquisition or lease of property within the influence area of an airport.

This project is located wholly within the Overflight Compatibility Zone for the Oakland Airport as shown in Figure 3-6. As such, the following is required for a finding of compatibility with the Oakland Airport ALUCP:

> ✈ ***The applicant agrees to provide evidence of an executed Avigation Easement for the Oakland International Airport, in a form approved by the Port Attorney, for this project.***

For your convenience, the Port's approved Avigation Easement will be transmitted electronically with this letter.

**Consistency Review Findings**

In summary, the project as currently proposed is found to be Compatible with noise, safety, airspace protection and overflight standards. Once the requirements regarding FAA notification (if necessary during construction), and completion of an Avigation Easement are fulfilled and provided to the ALUC, a follow-up letter can be issued indicating the conditions as listed have been met if so desired.

Thank you for the opportunity to review this project. Please contact me at (510) 670-6511 if you have any questions about this determination or require additional information as this project moves forward.

Sincerely,

Cindy Horvath
Senior Transportation Planner

c: Members, Alameda County Airport Land Use Commission
Albert Lopez, Alameda County Planning Director, ALUC Administrative Officer
J. Lipp, Friends of the Alameda Animal Shelter