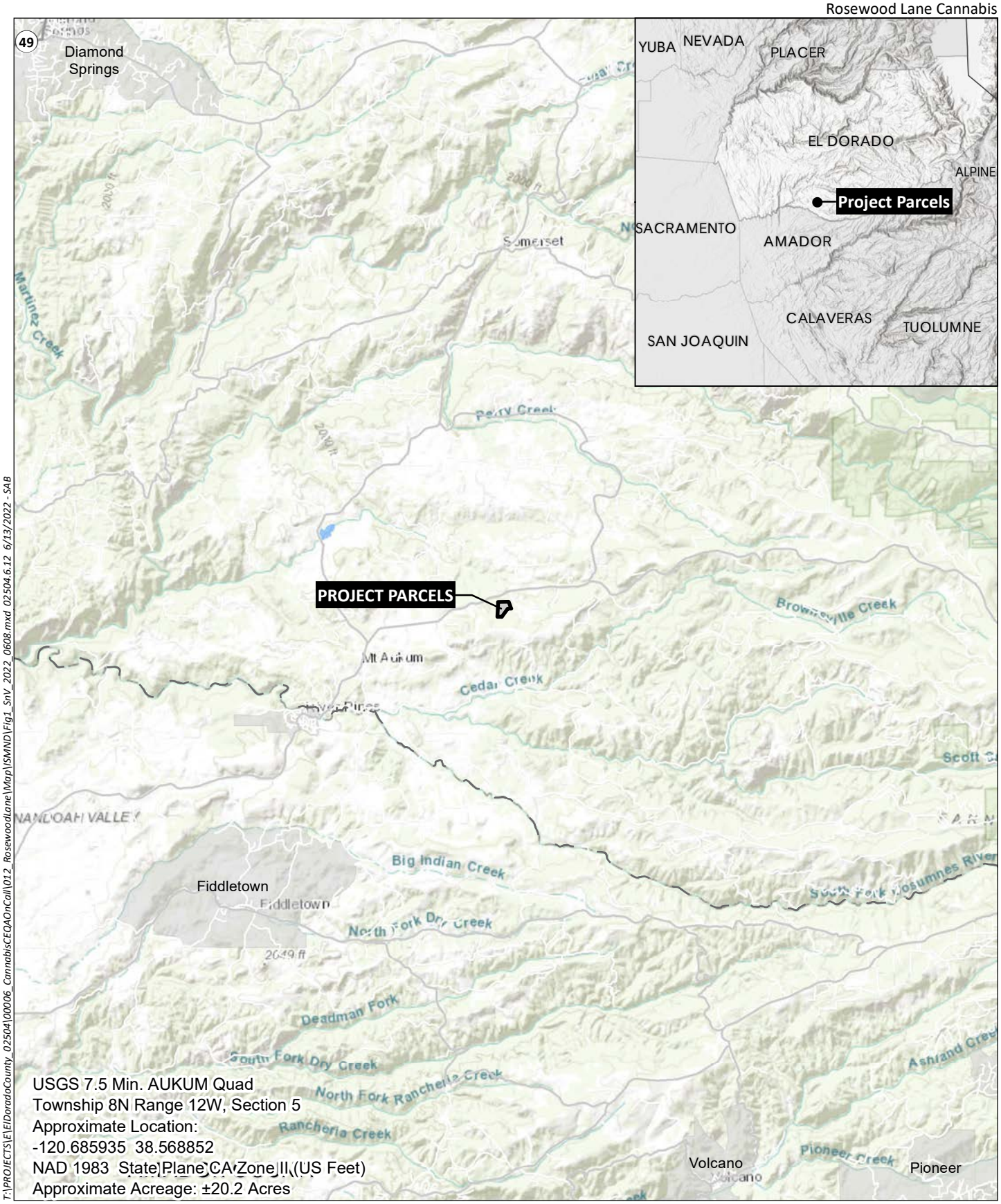
Appendix A

Figures



T:\PROJECTS\E\ElDoradoCounty_02504\00006_CannabisCEQAOnCall\012_RosewoodLane\Map\SMND\Fig1_SnV_2022_0608.mxd 02504.6.12 6/13/2022 - SAB

Source: Base Map Layers (Esri, USGS, NGA, NASA)

HELIX Environmental Planning

Vicinity Map

Figure 1

T:\PROJECTS\E\ElDoradoCounty_02504\00006_CannabisCEQAOnCall\012_RosewoodLane\Map\SMND\Fig2_Aerial_2022_0608.mxd 02504.6.12 6/13/2022 - SAB

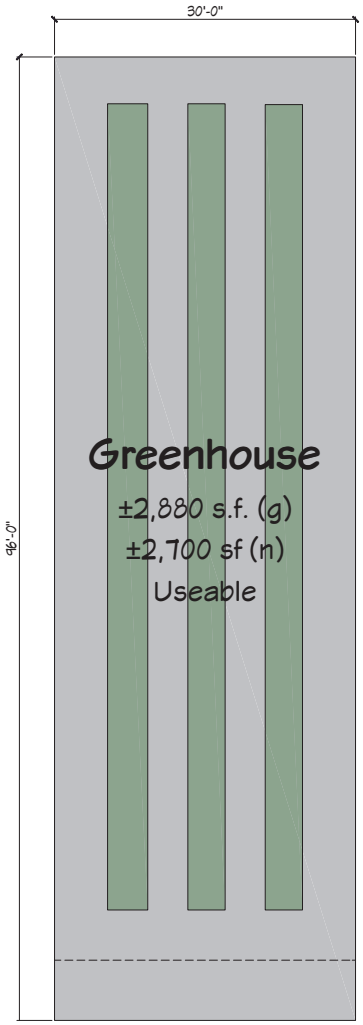
0 400 Feet

Source: Aerial (Maxar, 4/19/2021)

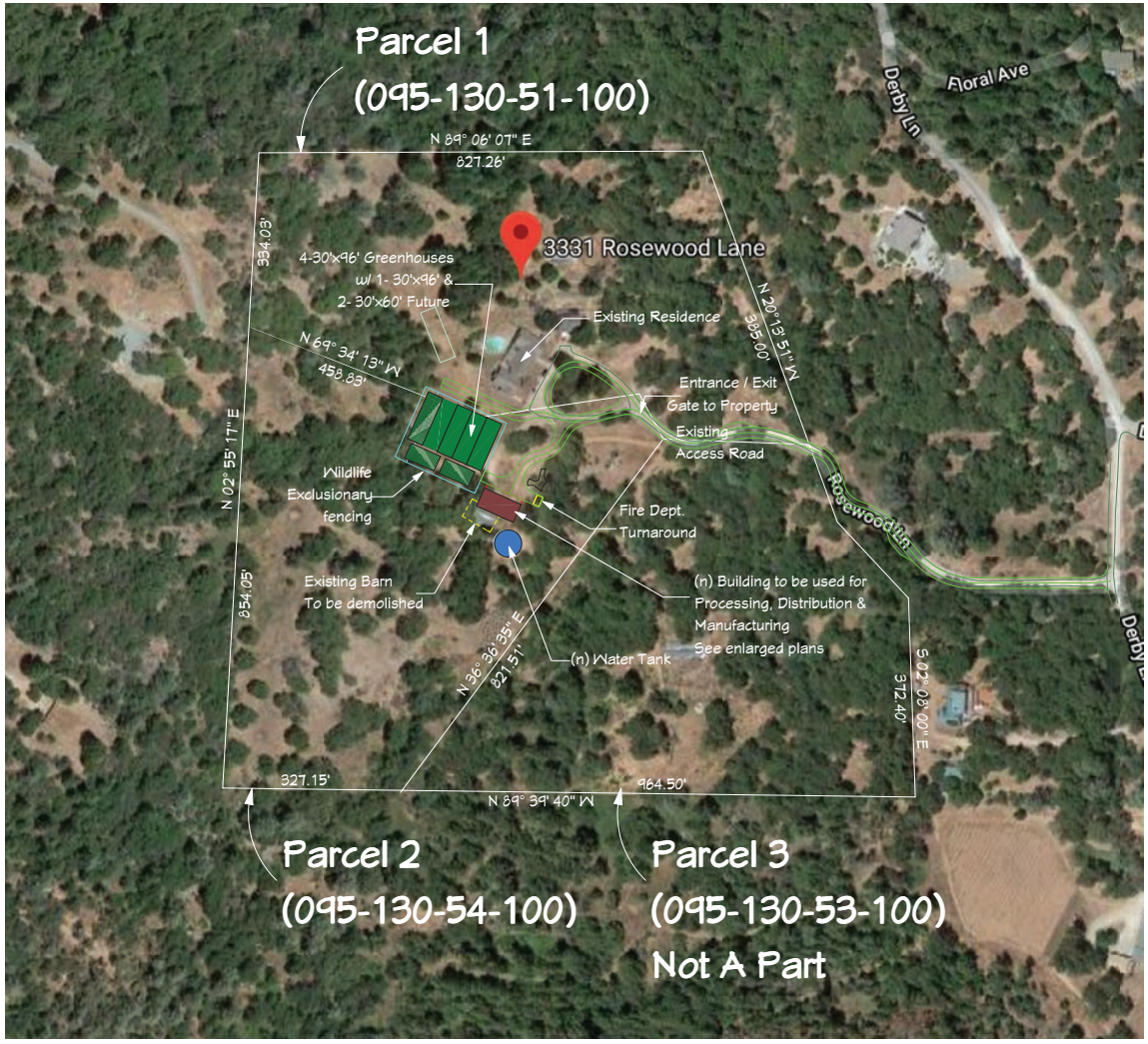
HELIX Environmental Planning

Aerial Map

Figure 2



TYPICAL GREENHOUSE
3/16" = 1'-0"



OVERALL SITE PLAN
1" = 100'-0"

Fig3_SitePlan.indd 02504.6.12 6/8/2022 - SAB

Source: John Westphal, 2021

HELIX Environmental Planning

Site Plan

Figure 3

Appendix B

Odor Report

EPS
ENVIRONMENTAL PERMITTING SPECIALISTS
Air Quality • Permitting • OHSA • RMP/PSM

August 11, 2021

Dale Schafer
Dale Schafer Law
4010 Foothills Blvd
Roseville, CA 95747

Subject: Evaluation of On-Site and Off-Site Cannabis Odors at Proposed Indoor Cannabis Cultivation Project in Somerset (El Dorado County)

Dear Dale:

Environmental Permitting Specialists (EPS) has reviewed the project description and site plans for the proposed indoor cannabis cultivation to be located at 3331 Rosewood Lane, Somerset in El Dorado County.

It is our understanding that the site consists of 3 parcels totaling 30 acres. The site plan (Figure 1) indicates that four greenhouses are proposed with an additional 2 greenhouses in the future. The current total area for indoor cultivation is estimated to equal 32,000 square feet. Harvested cannabis leaves will be dried and processes at an adjacent 2,880 square foot building. The distances from the greenhouses to the nearest property line varies from 300 feet to the West to 600 feet to the South.

It is our understanding that each greenhouse will be equipped with carbon filtration or an equivalent odor control system. In addition, the processing building will be equipped with carbon filtration system. Details of the construction of the greenhouses, processing building and the odor control system have been submitted to the County. The proposed odor control measures will reduce odor intensity to well below 7 DT near the greenhouses and near the processing building.

Modeling completed by EPS at several locations in El Dorado County, including Somerset, found that odor intensity decreases by distance away from the sources of cannabis odors. Specifically, EPS found odor intensity declines by 88% over 100 meters or 26.7% every 100

feet. See Figure 2. As a result, odor intensity at the property lines at this project is estimated to be 3.5 DT or lower assuming odors are reduced to 7 DT adjacent to the greenhouses or the process building.

To confirm that this project will comply with Dorado County's 7 dilution to threshold (D/t) odor standard [Ordinance 5110 (5) D)], EPS relied on odor intensity measurements at other greenhouses in Northern California. Specifically, EPS collaborated with Fulcrum Enterprises, LLC, NCM Odor Control, Inc., and Bosarge Environmental, LLC to conduct multi-day odor intensity measurements adjacent to greenhouses.

Melanie Bosarge conducted the odor measurements using a Nasal Ranger Field Olfactometer and the results are reported in terms of DT. She is a Certified Instructor and has extensive training and experience in the use of the Nasal Ranger. She also completed training at the Odor School at St. Croix Sensory, the manufacturer of Nasal Ranger.

The odor measurements were conducted October 1 to 3, 2019 at a Northern California location (10175 Alberton Ave, Chico) that has seven (7) greenhouses each measuring 200 feet x 42 feet. Each greenhouse had 3 rows of four hundred (400) plants totaling 1,200 plants. The greenhouses were equipped with an odor control misting system. Photographs of the misting system appear in the attached report. At the time odor measurements were taken, the plants were two weeks away from harvesting. See Figures 1 to 5 in the attached report.

Odor intensity was measured at the greenhouse exhaust vents, at the property lines and at nearby off-site locations. A total of 17 on-site readings were taken. The results of the on-site testing were as follows:

Number of Readings	Measured D/t
4	0 (non-detect)
10	Between 2 and less than 2
2	4
1	7

In addition to on-site readings, 144 off-site readings were taken over two days under a variety of weather conditions. A complete copy of the odor monitoring report is attached.

These results indicate that odor intensity from the greenhouses equipped with effective odor control system would not lead to excess odors. Specifically, the odor intensity would remain at or below 7 DT. During majority of the tests (16 out of 17), odor intensity remained at or below 2 DT.

On the basis of odor measurements taken at the Chico greenhouses, and the fact that your greenhouses will have an odor control, we conclude that odors near the proposed greenhouses will also remain well below 7 at the property lines. We expect the odor intensity at the property lines to be less than 2 DT.

To ensure on-going compliance with the County's 7 DT odor standard along the property lines, EPS staff will be available to measure odor intensity after the greenhouses are in operation. In the meantime, the data collected at the Chico greenhouses overwhelmingly demonstrates that odor intensity would not exceed 7 D/t from your greenhouses either at the property lines or off-site beyond your property lines.

Please contact me if you have any questions or require additional information.

Sincerely,

Ray Kapahi

Ray Kapahi
Principal
Environmental Permitting Specialists
Web Site: https://www.epsconsulting.org/

ATTACHMENTS

- Site Map
- Photos from Odor Testing at Greenhouses in Chico
- Copy of Chico Odor Testing Report (November 1, 2019)

Figure 1
Site Map

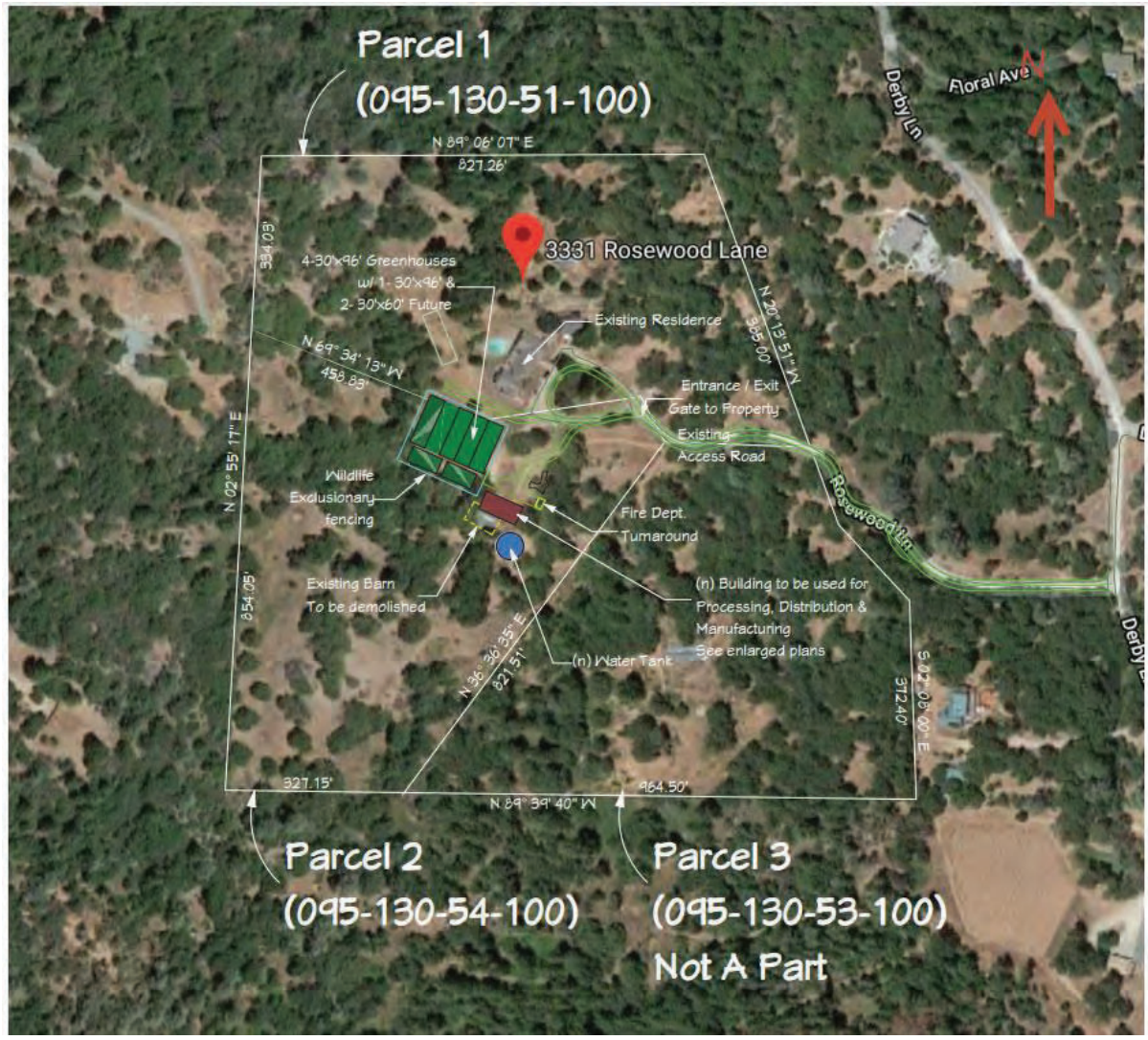
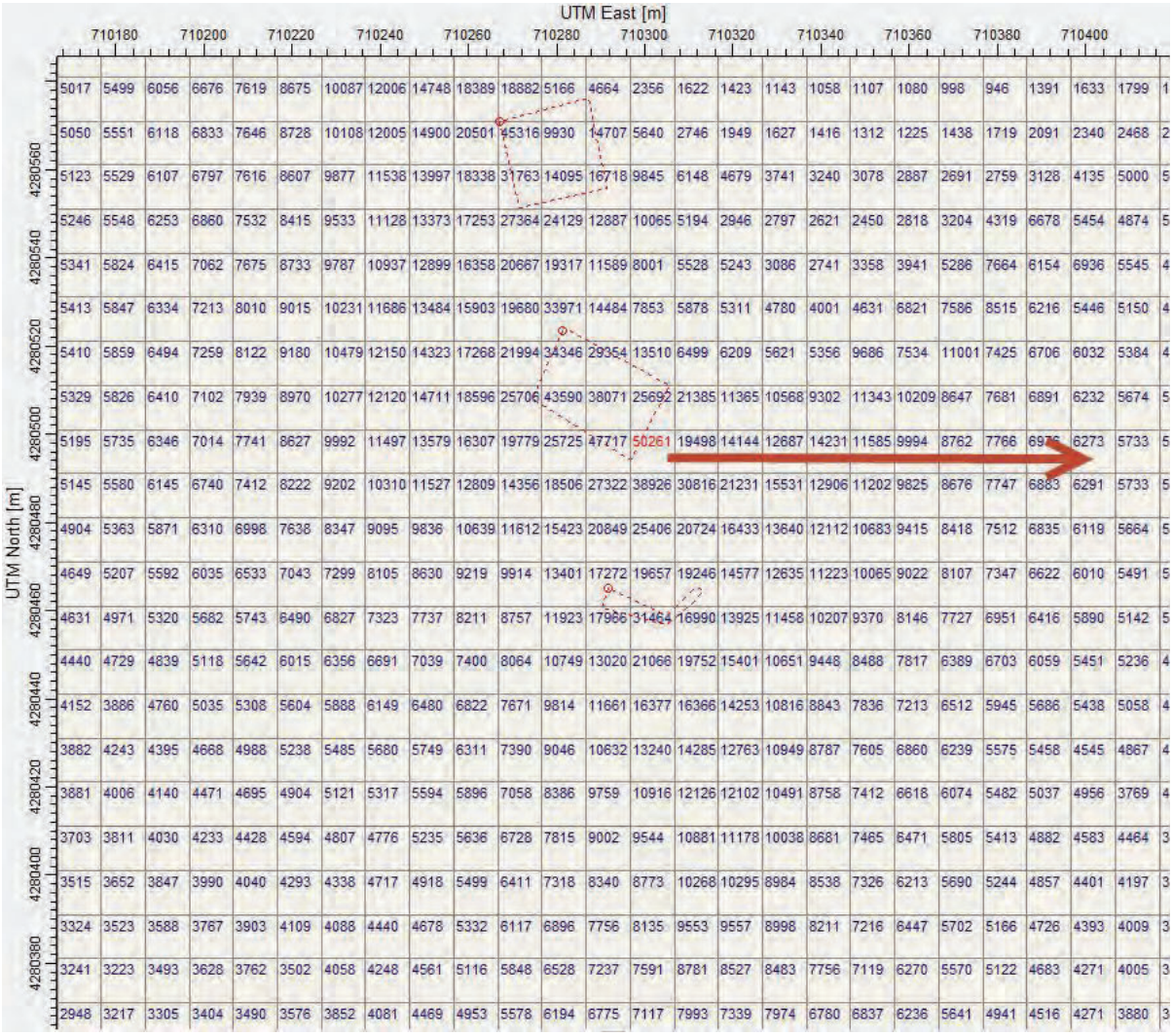


Figure 2
Odor Modeling Results for a Site in Somerset Showing the Decline in Odor Intensity with Distance
(Relative Odor Concentration in ug/m3)



Each Cell is 10 meters (32.8 feet)

ATTACHMENT

Figure 1

Location of Chico Greenhouses

Figure No. 2 - Odor Inspection Locations Full View (Google Earth Map)

Figure No. 3 - Onsite Odor Inspection Locations (Google Earth Map)

Bosarge Environmental, LLC
707 Bienville Blvd.
Ocean Springs, MS 39564
(228) 217-3180

November 1, 2019

Fulcrum Enterprises, LLC
390 Main Street
Great Barrington, MA 01239

RE: Odor Assessment Study

Introduction

Fulcrum Enterprises, LLC, (Fulcrum) retained Bosarge Environmental, LLC, as a third-party Odor Expert, to analyze the cannabis odor impact of a facility in California that is similar to a project Fulcrum is proposing for approval in Great Barrington, MA. The California facility is much older, but very similar in building size and plant production, of the proposed new facility. The Fulcrum design incorporates the same measures for odor control as the California facility. Fulcrum plans to present this odor study of an existing operational facility as a model for permitting the new facility.

Ms. Melanie Bosarge conducted ambient odor surveys the three days of October 1- 3, 2019. This time frame was selected because the operation was in full flowering stage. During this period, the greenhouses would have a crop of fully formed flowering cannabis plants at the stage when terpene odor is the greatest, creating a "worst-case-scenario" of odor for the facility.

Ms. Bosarge is a Chemical Engineer and Owner/Manager of Bosarge Environmental, LLC. She has represented St. Croix Sensory (St. Croix) as a certified instructor and provided client training and odor assessment services, as an independent contractor, since 2002. For more than thirty-five (35) years, St. Croix has been assisting facility owners, consulting engineering firms, and regulatory agencies to quantify odors from a variety of industrial, agricultural, and municipal operations, including wastewater treatment, landfills, composting, and manufacturing in both field and laboratory settings. St. Croix manufactures and markets state-of-the-art odor sampling and measurement equipment, including the Nasal Ranger Olfactometer. St. Croix's "ODOR SCHOOL"® is an internationally recognized program to prepare inspectors to conduct field evaluations of ambient odors.

Ambient Odor Assessment Methodology

Odor surveys were conducted using a newly calibrated Nasal Ranger field olfactometer to quantify odor strength when odor was noticed at each monitoring location. The Calibration Certificate appears in the Appendix as ***Exhibit 1***. Prior to odor observations, an inspector breathes through carbon cartridges for approximately one minute to "zero" nose to 100%. Upon arrival at each separate location, ambient odor is assessed with the "naked nose". If no odor is detected, the current time and "non-detected" (ND) is recorded. If an odor is detected, a reading is then taken with Nasal Ranger Olfactometer.

Using the Nasal Ranger, odor strength is measured as dilution ratios, reported as Dilution-to-Threshold (D/T) values. The Nasal Ranger Dilution-to-Threshold odor measurement is an "instantaneous" measurement, which is a recognition threshold. For example, a 4-D/T is the dilution ratio of 4-volumes of carbon filtered odor free air mixed with one-volume of ambient (odorous) air that makes the ambient odorous air "just-barely-recognizable" as an odor.

The D/T dilution ratio steps of the Nasal Ranger olfactometer used for the odor surveys were 2, 4, 7, 15, 30, and 60. If an odor is detected with the "naked nose" at a location, a measurement is taken with the Nasal Ranger. An odor in the air that is not measured at the 2-D/T dilution ratio is reported as less than 2-D/T (<2). The absence of ambient odor is reported as "non-detected" (ND).

Figure 1 – Nasal Ranger Olfactometer is a photograph taken during an odor survey at a cannabis growing operation in Colorado.

Figure No. 1 – Nasal Ranger Olfactometer

Building and Odor Control Specifications

NCM Environmental Solutions (NCM) constructed the odor neutralizing mist system for the California facility and currently provides the odor neutralizing agent and ongoing maintenance of the system. The California facility is much older, but very similar in building size and plant production, of the proposed new Fulcrum facility. Fulcrum plans to incorporate the same measures for odor control as the California facility. Consequently, one of the objectives of this odor study was to evaluate the efficiency of the exhaust and odor neutralizing system.

The cannabis growing area is made up of seven (7) greenhouses, two hundred (200) feet in length and forty-two (42) feet in width. Each greenhouse has three (3) rows of four hundred (400) plants, totaling twelve hundred (1,200) plants per greenhouse. The greenhouses have multiple holes on the siding and roof, as shown in pictures in ***Exhibit 2.***

NCM system specifications include an electric 1 HP system with a 1.75 GPM high pressure atomizing pump, operating at 800 PSI. During the odor study, the chemical injection pump was not automated. It was adjusted by hand using two knobs, as shown in photographs in ***Exhibit 2.***

The exhaust vents are fifty-five inches, square shaped, and powered by a 1-HP motor. Each exhaust vent has three (3) NCM 1.9 GPH nozzles. The nozzles are located on the exhaust vents, centered and positioned in a straight line. The California facility maintains the odor neutralizer injection pump at their preferred setting of 1000:1 dilution ratio. This set dilution ratio achieves the level of odor control needed and works within operations budget. Growers have determined that the facility has low levels of cannabis odors without the system on; therefore, the 1000:1 dilution ratio is sufficient for that site.

Odor Survey – Introduction and Mapping

Upon arrival at the facility on the afternoon of October 1, 2019, Ms. Bosarge was taken on an extensive tour of the site. Each step of the odor control system was identified and explained. A plan of action was developed and coordinated. The first odor survey was performed to test the efficiency of the odor control system. After concluding the onsite test, Ms. Bosarge investigated the area within the security fence, and along accessible residential, commercial and agricultural areas throughout neighborhood. Meteorological conditions were recorded and several locations were mapped and designated as survey locations. No odors were detected past the perimeter of the property during this initial investigation.

After the initial tour and first round of controlled test measurements of the odor neutralizer, Ms. Bosarge continued independently to develop a monitoring plan and complete several additional surveys during the three-day odor assessment study. Sixteen (16) onsite locations within the fenced area of the property and twelve (12) locations in the surrounding community were designated and mapped by recording latitude and longitude coordinates at each location. Unique identification codes were assigned to each location. The onsite locations were designated as Locations A through P. The offsite locations were designated as Locations 1 through 12. The center point of the cannabis greenhouses was designated as Location X. Latitude and longitude coordinates for each location were entered into Odor Tracker software to produce Google Earth Maps of the areas within the property and the surrounding community.

Table No. 1 Cannabis Facility Odor Monitoring Locations lists the center of the cannabis facility as Location X, along with twenty-eight (28) ambient odor survey locations. The table specifies an identification number, the latitude and longitude coordinates for each location and whether each location is onsite or offsite.

Table 1 - Cannabis Facility Odor Monitoring Locations

Loc #		Name	Latitude	Longitude
1	Offsite			
2	Offsite			
3	Offsite			
4	Offsite			
5	Offsite			
6	Offsite			
7	Offsite			
8	Offsite			
9	Offsite			
10	Offsite			
11	Offsite			
12	Offsite			
A	Onsite	Test Area 6 Ft from Exhaust		
B	Onsite	Test Area 12 FT From Exhaust		
C	Onsite	Test Area 24 Ft From Exhaust		
D	Onsite	West Corner of Greenhouses		
E	Onsite	South Corner of Greenhouses		
F	Onsite	South Midpoint of Greenhouses		
G	Onsite	East Corner of Greenhouses		
H	Onsite	East Corner of Whse		
I	Onsite	East Midpoint of Whse		
J	Onsite	North Corner of Whse		
K	Onsite	North Corner of Greenhouses		
L	Onsite	North Center of Greenhouses		
M	Onsite	Front Gate To Froperty		
N	Onsite	Post by Dumpster		
O	Onsite	Post Behind House		
P	Onsite	On Hill Behind House		
X	Onsite	Reference Center of Facility		

Figure No. 2 - Odor Inspection Locations Full View identifies the center of the cannabis facility as Location X and each of the twenty-eight (28) monitoring locations on a Google Earth map. The offsite Locations 1 through 12 are featured in this figure.

Figure No. 2 - Odor Inspection Locations Full View (Google Earth Map)

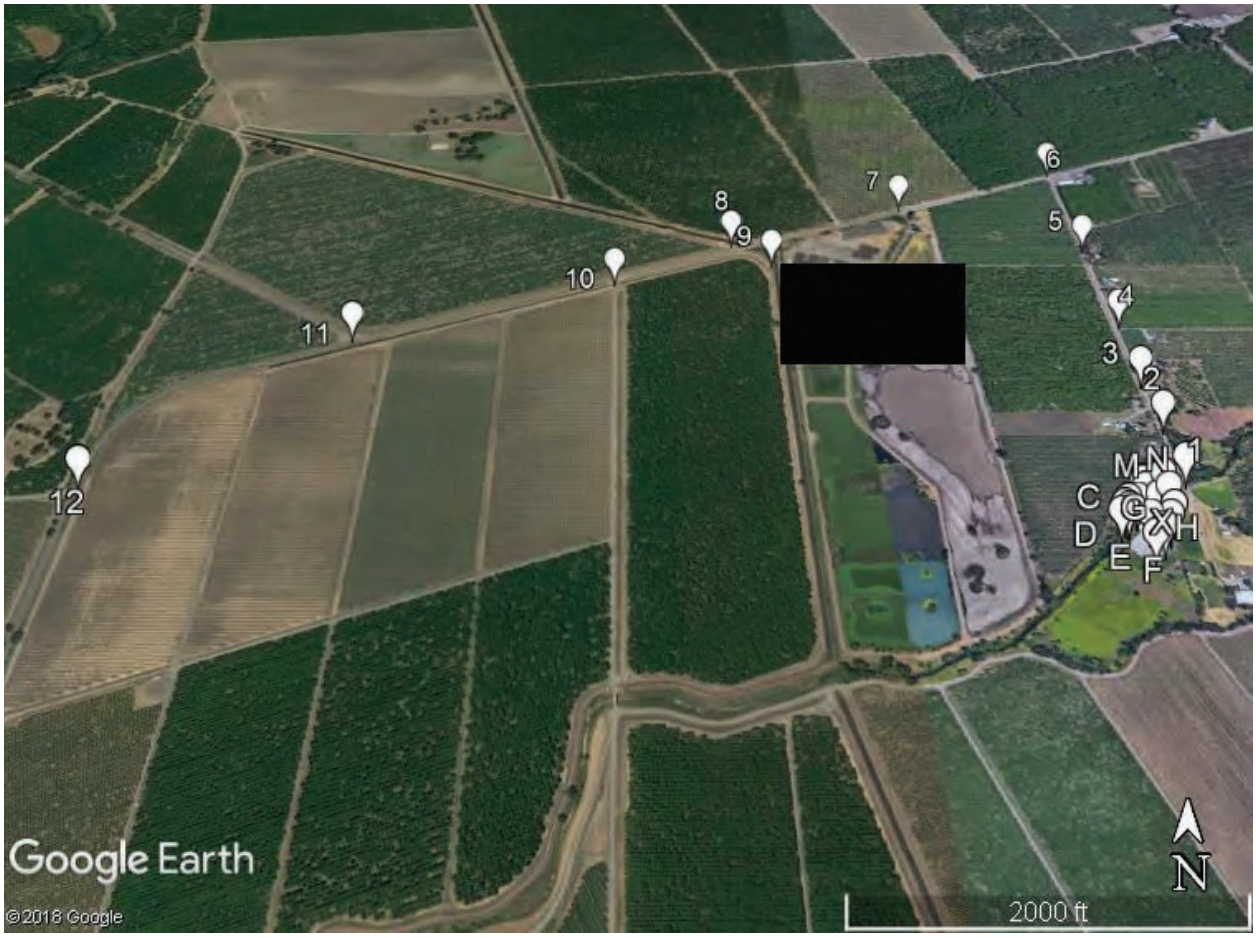


Figure No. 3 - Onsite Odor Inspection Locations identifies the center of the cannabis facility as Location X, and each of the sixteen (16) onsite monitoring Locations A through P on a Google Earth map.

Figure No. 3 - Onsite Odor Inspection Locations (Google Earth Map)

Odor Survey – Discussion

Fourteen (14) ambient odor surveys were conducted during the three-day study. Seven (7) of the rounds were performed offsite, in the surrounding community, and seven (7) rounds were conducted onsite. Two (2) of the onsite rounds, referred to as Test Rounds, included locations on the side of the greenhouses where the odor control system is installed. The objective of these Test Rounds was to evaluate the efficiency of the exhaust and odor neutralizing system.

For the Test Rounds, Locations A, B and C were designated at points six feet, twelve feet and twenty-four feet away from the exhaust fan of the greenhouses with the most mature plants. The exhaust fan, when operational, was blowing from the greenhouses at approximately sixteen MPH. The Test Rounds were performed under different scenarios to test the efficiency of the exhaust and odor neutralizing system.

Five (5) additional odor surveys were conducted onsite, within the facility property over the three-day odor study. During each survey, the date, time, odor reading and meteorological conditions, including temperature, humidity, precipitation, sky conditions, wind speed and wind direction were recorded at each location. Each survey was recorded separately and odor survey data reports appear in the Appendix as ***Exhibit 3***.

Approximately one hundred and sixty-eight (168) odor observations were recorded during the three-day study. During those days, seven offsite odor surveys were completed and seventy-nine (79) offsite observations were recorded. No cannabis odor was detected offsite at the property perimeter or in the community during those three days. The meteorological conditions, time of day and level of odor treatment varied between each offsite survey. Based on the results of the Odor Study, cannabis odor from the cultivation process does not leave the property.

During the same three-day timeframe, seven (7) onsite odor surveys were conducted and eighty-nine (89) onsite observations were recorded. No cannabis odor was detected during fifty-two (52) of those observations. Cannabis odor was detected at <2 D/T during twenty-three (23) observations and 2 D/T during nine (9) observations. Cannabis odor was detected at a level of 4 D/T during three (3) observations and 7 D/T during two (2) observations. During each observation of 4 D/T and 7D/T, the exhaust system had just been activated without odor neutralizer treatment, after cannabis odors had built up over night in the greenhouses. Those values returned to 2 D/T or less, within minutes after the greenhouses were properly vented and/or treated. These levels are extremely low for onsite operations.

Meteorological data and odor observation readings, from each Round, were loaded into the Odor Tracker software. ***Exhibit 3*** displays the results of each of the fourteen (14) Rounds. ***Exhibit 4*** contains several Maps that were created by the Odor Tracker Software, utilizing the entered data.

Odor Rounds Summary

Test Round 1 - Onsite

On the first afternoon, Test Round 1 was conducted from approximately 2:45 PM until 3:30 PM. In ***Exhibit 3,*** the Round 1 Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30%, and the temperature was 74 degrees F. The wind was moderate and blowing from the west northwest. Prior to the odor observations, the exhaust and odor neutralizer systems were turned off. Cannabis odors were allowed to accumulate within the greenhouses. At 2:45 PM, the ventilation and exhaust system was turned on, without engaging the mist system. Measurements were taken at the three locations A, B and C, as the exhaust fans were turned on, but with no water mist or odor neutralizer. A reading of 7 D/T was taken at Location A with the Nasal Ranger. Within two minutes, a reading of 4 D/T was taken at Location B. Within two more minutes, a reading of 2 D/T was taken at Location C. These readings are higher than normal, because of the accumulation of cannabis odors, with an outdoor temperature of 74 degrees F and without any consistent ventilation in the greenhouses.

The next test was performed with the exhaust fans on and water mist only. After the system was on for approximately five minutes, a reading of 4 D/T was taken at Location A. Within two minutes, a reading of 2 D/T was taken at Location B. Within two more minutes, a reading of <2 D/T was taken at Location C. The lower readings were due to a combination of additional venting time and the water mist.

The odor control system was fully operational for the third and fourth set of readings. Each survey was within five to eight minutes of each other and results were identical at Locations A, B and C. A reading of <2 D/T was taken at Locations A and B. At Location C, no odor was detected. From these test results, it appears that a fully operational odor control system lowers the odor intensity readings from 7 D/T to <2 D/T, at six to twelve feet from the greenhouse ventilation fan. At twenty-four feet, the odor intensity goes from 2 D/T to non-detected.

Round 2 - Onsite

Several more onsite locations were designated and observed that afternoon, during Round 2, from 3:36 PM until 4:11 PM. The sky was sunny with no precipitation. The humidity was 20%, and the temperature was 74 degrees F. The wind was moderate and blowing from the northwest. The odor control system was fully operational. Odor was observed at <2 D/T at Locations D, E and G. No odors were detected at Locations M or K.

Round 3 - Offsite

After the initial onsite investigation, several offsite locations were designated and observed during Round 3, from approximately 4:13 PM until 5:06 PM. In ***Exhibit 3,*** the Round 3 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 19%, and the temperature was 74 degrees F. The wind was moderate and blowing from the west northwest. The odor control system was fully operational. No odors were detected.

Round 4 - Offsite

On the second day of the odor study, a few more offsite locations were designated and observed during Round 4, from approximately 9:56 PM until 10:30 PM. In ***Exhibit 3,*** the Round 4 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 51%, and the temperature was 55 degrees F. The wind was calm and blowing from the north. The odor control system was not operational yet. No odors were detected.

Test Round 5 - Onsite

Several more onsite locations were designated and observed during Round 5, from approximately 11:00 AM until 11:45 AM. In ***Exhibit 3,*** the Round 5 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30 - 36%, and the temperature was 63 - 64 degrees F. The wind was light and variable. The odor control system had been during the night and had not been turned on yet. Odor was detected at a level of 2 D/T at Location O. At that moment, this location was downwind of greenhouses. Odor was detected at a level of <2 D/T at Locations A, B and F. No odors were detected at the other onsite locations.

Test Round 6 - Onsite

On the second day, Test Round 6 was conducted from approximately 11:40 AM until 12:24 PM. Additional onsite Locations L & K were incorporated into Test Round 6. In ***Exhibit 3,*** the Round 6 Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 30%, and the temperature was 64 degrees F. The wind was light and blowing from the north. Prior to the odor observations, the exhaust and odor neutralizer systems were still turned off. Cannabis odors were accumulating within the greenhouses, but appeared to be staying within the greenhouses. Readings were taken at Locations A and B at a level of <2 D/T. No odor was detected at Locations C or L. At approximately 11:45 PM, the ventilation and exhaust system was turned on, without engaging the mist system and allowed to vent for ten minutes. A reading of 2 D/T was taken at Locations A, B and C, within two minutes of each other. Within five to six more minutes, a reading of <2 D/T was taken at Locations L and K. These readings are higher than the first set of readings, because of the discharge of accumulated cannabis odors in the greenhouses.

The odor control system was fully operational during the next set of readings. The system was allowed to operate for fifteen minutes before odor was measured. A reading of <2 D/T was taken at Locations A, B and C. At Locations L and K, no odor was detected. From these test results, it appears that a fully operational odor control system, operated for fifteen to twenty minutes, lowers the odor intensity readings to non-detectable up to <2 D/T, at six to twenty-four feet from the greenhouse perimeter.

Round 7 – Onsite

After Test Round 6, one more set of observations were taken onsite, from approximately 12:26 PM until 12:51 PM. In ***Exhibit 3,*** the Round ***7*** Onsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 25%, and the temperature was 70 degrees F. The wind was light and blowing from the north. The odor control system was fully operational for approximately twenty to forty-five minutes. No odors were detected. This onsite round indicates that under the circumstances stated above, the odor control system, when operated consistently for less than one hour, reduces all onsite cannabis odor to zero.

Round 8 – Offsite

Offsite locations were observed during Round 4, from approximately 12:58 PM until 1:28 PM. In ***Exhibit 3,*** the Round 8 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 24%, and the temperature was 72 degrees F. The wind was light and blowing from the north. The odor control system was fully operational. No odors were detected.

Round 9 – Offsite

Offsite locations were observed during Round 9, from approximately 6:09 PM until 6:34 PM. In ***Exhibit 3,*** the Round 9 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 21%, and the temperature was 72 degrees F. The wind was moderate and blowing from the south southwest. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Round 10 – Offsite

On the third day of the odor study, offsite locations were observed during Round 10, from approximately 9:42 AM until 10:09 AM. In ***Exhibit 3,*** the Round 10 Offsite Data Sheet displays the test data. The sky was mostly cloudy and foggy. The humidity was 51%, and the temperature was 59 degrees F. The wind was moderate and blowing from the south. The ventilation exhaust and odor control system were not in operation. No odors were detected.

Round 11 – Onsite

The next round was conducted from approximately 10:11 AM until 10:35 AM. In ***Exhibit 3,*** the Round 11 Onsite Data Sheet displays the test data. The sky was partly cloudy with no precipitation. The humidity was 37%, and the temperature was 60 degrees F. The wind was light and blowing from the north. Prior to the odor observations, the exhaust and odor neutralizer systems were still turned off. Cannabis odors had been accumulating within the greenhouses overnight.

At approximately 10:29 AM, the ventilation and exhaust system turned on automatically, because it was set to activate based on temperature in the greenhouses. The readings prior to the system coming on were relatively low. Readings at Locations J, O and K were <2 D/T. No odor was detected at any other locations before the system engaged. Once the ventilation and exhaust system turned on, a reading of 7 D/T was taken at Location A. A reading of 4 D/T was taken at Location B. A reading of 2 D/T was taken at Locations C and L. These readings are high and consistent with values obtained in Test Round 1, on the first day of the odor study, when the exhaust system was turned on, without the odor neutralizer. The elevated values are because of the discharge of accumulated cannabis odors in the greenhouses.

Round 12 – Onsite

After Round 11, one more set of observations were taken onsite, from approximately 11:20 AM until 11:50 AM. In ***Exhibit 3,*** the Round 12 Onsite Data Sheet displays the test data. The sky was partly cloudy with no precipitation. The humidity was 28%, and the temperature was 67 degrees F. The wind was light and blowing from the north. The ventilation and exhaust system had been operational for approximately fifty minutes to one hour and twenty minutes. The odor neutralizing system was still down because of the pump malfunction. Odors were detected at a level of 2 D/T at Location A. Odor was detected at a level of <2 D/T at Locations B, C, L and K. No odors were detected at any other locations. This onsite round indicates that under the circumstances stated above, the ventilation and exhaust system operating alone reduces the odor level onsite to a level of 2 D/T or less, when operated consistently.

Round 13 – Offsite

Offsite locations were observed during Round 13, from approximately 12:00 PM until 12:20 PM. In ***Exhibit 3,*** the Round 13 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 26%, and the temperature was 68 degrees F. The wind was light and blowing from the north. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Round 14 - Offsite

Offsite locations were observed during Round 14, from approximately 3:40 PM until 4:10 PM. In ***Exhibit 3,*** the Round 14 Offsite Data Sheet displays the test data. The sky was mostly sunny with no precipitation. The humidity was 16%, and the temperature was 77 degrees F. The wind was moderate and blowing from the south southeast. The odor control system was not fully operational. The ventilation and exhaust system were operating; however, due to an issue with a pump, the odor neutralizer was not being used. No odors were detected.

Odor Survey Conclusions

No odors were detected at any of the designated locations throughout the California Community, during the three-day Odor Study. Seven (7) offsite surveys were conducted under three different operational conditions including 1) ventilation fan exhaust and odor neutralizer treatment 2) ventilation fan exhaust and no odor neutralizer treatment and 3) no ventilation fan exhaust and no odor neutralizer treatment. Based on these findings, this facility or one similar in size, construction, cultivation and basic odor control measures, should not adversely affect the surrounding community, even in times when odor control equipment is out-of-service for maintenance or not working properly.

In each case of onsite odor detection, where proper ventilation, exhaust and odor neutralizer treatment was in place, the odor was faint and intermittent at each location where <2 D/T was recorded. These locations were along the exhaust side of the greenhouses and either next to the greenhouses or directly downwind of the exhaust fans. This value indicates a barely discernible odor with the "naked nose", but under the threshold to be considered a recognizable odor with the Nasal Ranger Olfactometer on the lowest setting of 2-D/T.

Based on the findings in this Odor Study, Bosarge Environmental, LLC, concludes that "no discernible cannabis odor" was detected outside of this facility and is barely recognizable within 25 to 100 feet of the greenhouses. Consequently, this cannabis operation or one similar in size, construction, cultivation and odor control measures, should not adversely affect the surrounding community.

Submitted by,

Melanie Bosarge

Melanie Bosarge
Bosarge Environmental, LLC

APPENDIX

EXHIBIT 1

Nasal Ranger Olfactometer Calibration Certificate

CERTIFICATE OF CALIBRATION

for the Nasal Ranger® Field Olfactometer

Serial Number : 90201429 **Calibration Date :** 7/15/2019

Dial D/T	Actual D/T	% Variance
60	60.02	0.0%
30	30.03	0.1%
15	15.07	0.5%
7	7.00	0.0%
4	4.00	0.0%
2	2.00	0.0%

This document certifies this Nasal Ranger® Field Olfactometer, specified by unique Serial Number, was calibrated using a NIST traceable primary gas flow standard by St. Croix Sensory, Inc.

St. Croix Sensory, Inc.
1150 Stillwater Blvd. N.
Stillwater, MN 55082 USA
+1-651-439-0177
info@nasalranger.com

NASAL RANGER®

Calibration Technician

Exhibit 2

Photographs from the California Property


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Exhibit 3

Onsite and Offsite Odor Survey Data Sheets

ROUND 1 - ONSITE
10/1/19 2:50 PM - 3:26 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 15:26	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:24	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:22	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:20	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:17	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:14	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:06	C	Test Area 24 Ft From Exhaust	<2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:04	B	Test Area 12 FT From Exhaust	2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 15:02	A	Test Area 6 Ft from Exhaust	4	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:54	C	Test Area 24 Ft From Exhaust	2	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:52	B	Test Area 12 FT From Exhaust	4	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92
10/1/2019 14:50	A	Test Area 6 Ft from Exhaust	7	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	30	29.92

ROUND 2 - ONSITE
10/1/19 3:36 PM - 4:11 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 16:11	M	Front Gate To Property	ND	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:53	E	South Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:49	G	East Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:44	K	North Corner of Greenhouses	ND	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95
10/1/2019 15:36	D	West Corner of Greenhouses	<2	Mostly Sunny	None	NW	Moderate Wind (5-15 mph)	74	20	29.95

ROUND 3 - OFFSITE
10/1/19 4:13 PM - 5:06 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/1/2019 17:06	6		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 17:02	10		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:59	11		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:56	12		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:24	9		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:20	8		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94
10/1/2019 16:13	1		ND	Mostly Sunny	None	WNW	Moderate Wind (5-15 mph)	74	19	29.94

ROUND 4 - OFFSITE
10/2/19 9:56 AM - 10:30 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 10:30	1		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:28	2		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:24	3		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:21	6		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:19	4		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:17	5		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:15	7		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:12	8		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:08	9		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:04	10		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 10:00	11		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07
10/2/2019 9:56	12		ND	Mostly Sunny	None	N	Calm (<1 mph)	55	51	30.07

ROUND 5 - ONSITE
10/2/19 11:00 AM - 11:45 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/2/2019 11:45	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:43	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:42	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:40	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:38	D	West Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:36	O	Post Behind House	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:33	P	On Hill Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:31	N	Post by Dumpster	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:27	E	South Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:26	F	South Midpoint of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:24	G	East Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:22	H	East Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:20	I	East Midpoint of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:18	J	North Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:15	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:00	M	Front Gate To Property	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05

ROUND 6 - ONSITE
10/2/19 11:40 AM - 12:24 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 12:24	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:23	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:22	C	Test Area 24 Ft From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:21	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:19	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:05	K	North Corner of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:05	K	North Corner of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 12:04	L	North Center of Greenhouses	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:59	C	Test Area 24 Ft From Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:57	B	Test Area 12 FT From Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:55	A	Test Area 6 Ft from Exhaust	2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:45	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	63	36	30.05
10/2/2019 11:43	C	Test Area 24 Ft From Exhaust	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:42	B	Test Area 12 FT From Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05
10/2/2019 11:40	A	Test Area 6 Ft from Exhaust	<2	Mostly Sunny	None	N	Light Breeze (1-5 mph)	64	30	30.05

ROUND 7 - ONSITE
10/2/19 12:26 PM - 12:51 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 12:51	E	South Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:50	F	South Midpoint of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:48	G	East Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:47	H	East Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:46	I	East Midpoint of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:44	N	Post by Dumpster	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:43	M	Front Gate To Property	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:42	P	On Hill Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:41	O	Post Behind House	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:40	J	North Corner of Whse	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:33	K	North Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:30	L	North Center of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03
10/2/2019 12:26	D	West Corner of Greenhouses	ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	70	25	30.03

ROUND 8 - OFFSITE
10/2/19 12:58 PM - 1:28 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 13:28	11		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:25	12		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:21	10		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:19	8		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:18	9		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:16	7		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:14	6		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:12	5		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:10	4		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:06	3		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 13:04	2		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02
10/2/2019 12:58	1		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	72	24	30.02

ROUND 9 - OFFSITE
10/2/19 6:09 PM - 6:34 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/2/2019 18:34	12		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:31	11		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:29	10		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:27	9		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:25	8		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:22	7		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:20	6		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:18	5		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:16	4		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:14	3		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:12	2		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95
10/2/2019 18:09	1		ND	Mostly Sunny	None	SSW	Moderate Wind (5-15 mph)	72	21	29.95

ROUND 10 - OFFSITE
10/3/19 9:42 AM - 10:09 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	InHg
10/3/2019 10:09	1	[redacted]	ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:08	2		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.30
10/3/2019 10:07	3		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:06	4		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:05	5		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 10:04	6		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:56	12		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:54	11		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:50	10		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:46	9		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:44	8		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00
10/3/2019 9:42	7		ND	Mostly Cloudy	Fog	S	Moderate Wind (5-15 mph)	59	51	30.00

ROUND 11 - ONSITE
10/3/19 10:11 AM - 10:35 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 10:35	C	Test Area 24 Ft From Exhaust	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:34	B	Test Area 12 FT From Exhaust	4	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:33	A	Test Area 6 Ft from Exhaust	7	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:31	D	West Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:29	L	North Center of Greenhouses	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:27	K	North Corner of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:25	O	Post Behind House	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:23	P	On Hill Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:21	J	North Corner of Whse	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:19	I	East Midpoint of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:17	E	South Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:16	F	South Midpoint of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:15	G	East Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:14	H	East Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:13	N	Post by Dumpster	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00
10/3/2019 10:11	M	Front Gate To Property	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	60	37	30.00

ROUND 12 - ONSITE
10/3/19 11:20 AM - 11:50 AM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 11:50	M	Front Gate To Property	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:45	A	Test Area 6 Ft from Exhaust	2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:44	B	Test Area 12 FT From Exhaust	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:43	C	Test Area 24 Ft From Exhaust	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:41	D	West Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:39	L	North Center of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:38	K	North Corner of Greenhouses	<2	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:35	P	On Hill Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:34	O	Post Behind House	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:32	J	North Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:29	N	Post by Dumpster	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:27	I	East Midpoint of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:25	H	East Corner of Whse	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:23	G	East Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:21	F	South Midpoint of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99
10/3/2019 11:20	E	South Corner of Greenhouses	ND	Partly Cloudy	None	N	Light Breeze (1-5 mph)	67	28	29.99

ROUND 13 - OFFSITE
10/3/19 12:00 PM - 12:20 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 12:20	12		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:18	11		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:15	10		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:12	9		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:10	8		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:08	7		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:06	6		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:05	5		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:04	4		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:03	3		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:02	2		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98
10/3/2019 12:00	1		ND	Mostly Sunny	None	N	Light Breeze (1-5 mph)	68	26	29.98

ROUND 14 - OFFSITE
10/3/19 3:40 PM - 4:10 PM

Date	Loc #	Location	D/T	Weather Condition	Precip	Wind Direction	Wind Speed	Temp	Humidity	Pressure
							mph	F	%	inHg
10/3/2019 16:10	1	[redacted]	ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:08	2		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:06	3		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:04	4		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:02	5		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 16:00	6		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:52	12		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:50	11		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:48	10		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:44	9		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:42	8		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90
10/3/2019 15:40	7		ND	Mostly Sunny	None	SSE	Moderate Wind (5-15 mph)	77	16	29.90

Exhibit 4

Onsite and Offsite Odor Data Maps


M
P
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F
Google
Report a map error


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X
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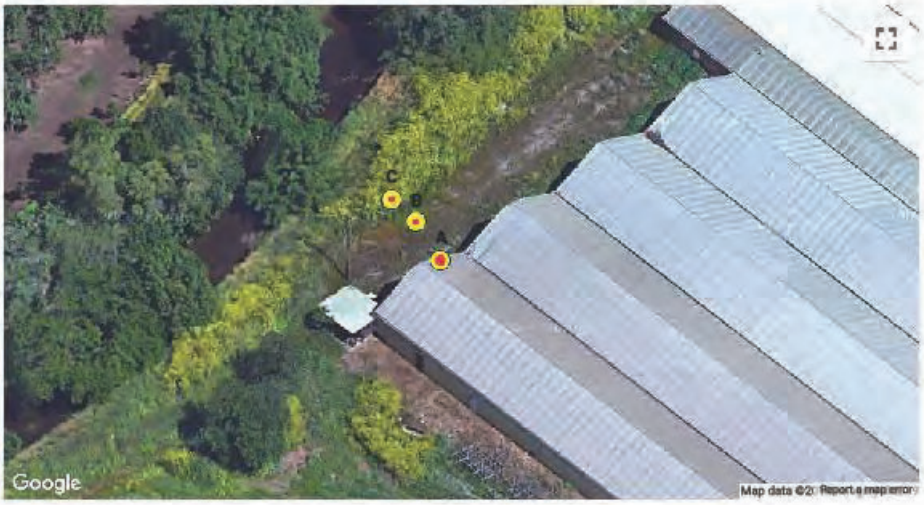
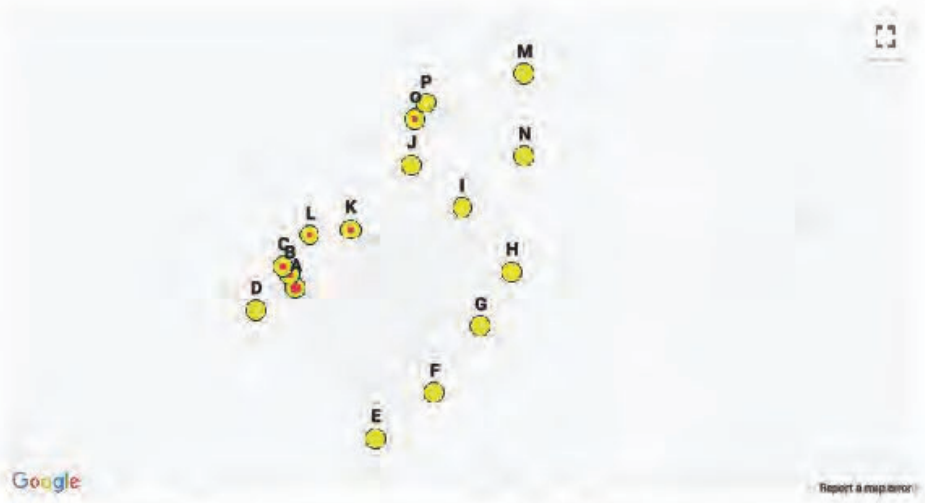
E
Google
Map data ©2019 Imagery ©2019 , Maxar Technologies, U.S. Report a map error



Odor DT Criteria (Eclipse Key)			
Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection
(DT)
Include Non-Detect



Odor DT Criteria (Eclipse Key)

Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection (DT)
Include Non-Detect

Odor DT Criteria (Eclipse Key)			
Avg. Log	Avg.	Eclipse Symbol	Description
0.000	= ND		Full Sun
0.001-0.301	< 2		1/4 Eclipse
0.301-0.845	>= 2		1/2 Eclipse
0.846-	>= 7		Full Eclipse

Date Range: 10/1/2019 thru 10/3/2019
Any Time of Day
Assessment Type: Inspection
(DT)
Include Non-Detect

Rosewood Odor Abatement Plan

Purpose:

Applicant states that the purpose of this Odor Abatement Plan is to mitigate odors created by cultivating, drying, curing, processing, and storing of cannabis so as to not adversely affect the health, safety, or enjoyment of property of persons residing near the property on which cannabis is cultivated or processed due to odor that is disturbing to people of normal sensitivity.

The Rosewood project team is working with construction and air quality professionals to design a distribution space with odor control technology built-in through the HVAC system. This includes carbon scrubbing technology to separate and eliminate odor before it has the opportunity to leave the building. In addition Applicant has chosen to use NextG3N greenhouses which are custom designed for cannabis cultivation. (Please refer to the Site Plan for detailed information).

On August 11, 2021, Environmental Permitting Specialists, Ray Kapahi, drafted a memo entitled “Evaluation of On-Site and Off-Site Cannabis Odors at Proposed Indoor Cannabis Cultivation Project in Somerset (El Dorado County)”. This memo recognizes the utilization of carbon filtration in each greenhouse as well as the processing building. The following seeks to further advise of the plan for implementing the carbon filtration and methods for maintaining the carbon filtration systems. Additionally, to advise of the recommendations made by Mr. Kapahi for ongoing surveys to ensure that the carbon filtration system is fulfilling the requirements made by El Dorado County.

Definitions:

Cannabis means all parts of the plant Cannabis sativa Linnaeus, Cannabis indica, or Cannabis ruderalis, whether growing or not; the seeds thereof; the resin, whether crude or purified, extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin. "Cannabis" also means the separated resin, whether crude or purified, obtained from cannabis. "Cannabis" does not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stalks (except the resin extracted therefrom), fiber, oil, or cake, the sterilized seed of the plant which is incapable of germination, or "industrial hemp" as defined by Section 11018.5 of the Health and Safety Code. (Business and Professions Code Section 26001.)

Cannabis business means any person engaged in any commercial cannabis activity.

Cannabis products means cannabis that has undergone a process whereby the plant material has been transformed into a concentrate, including, but not limited to, concentrated cannabis or an edible or topical product containing cannabis or concentrated cannabis and other ingredients. (Health and Safety Code Section 11018.1; Revenue and Taxation Code Section 34010.)

Canopy means the designated area(s) at a licensed premises, calculated in square feet, that will contain mature plants at any point in time, as follows:

For indoor and mixed-light cultivation and nurseries, canopy shall be calculated in square feet and measured using the room boundaries, walls, or ceiling-to-floor partitions of each enclosed area that will contain mature plants at any point in time, including all of the space(s) within the boundaries. If mature plants are being cultivated using a shelving system, the surface area of each level shall be included in the total canopy calculation.

For outdoor cultivation and nurseries, canopy shall be calculated in square feet and measured using physical boundaries of all area(s) that will contain mature plants at any point in time, including the space within the boundaries. Canopy may be noncontiguous, but each unique area included in the total canopy calculation shall be separated by a physical boundary, such as a fence, hedgerow, garden plot, or other stable, semi permanent structure that clearly demarcates the canopy edge.

Child care center means any licensed child care center, daycare center, childcare home, or preschool.

Place of worship means a structure or leased portion of a structure that is used primarily for religious worship and related religious activities.

Commercial cannabis activity includes any activity involving the propagating, cultivating, harvesting, processing, drying, curing, storing, trimming, manufacturing, packaging, labeling, transporting, delivering, possessing, distributing, or laboratory testing of cannabis or cannabis products for the sale, distribution, gifting, or donating to any other person regardless of whether the activity involves medicinal or adult recreational cannabis or cannabis products, is operated for profit, or is in compliance with State laws and regulations. "Commercial cannabis activity" does not include any activity expressly allowed under Business and Professions Code Section 26033, Health and Safety Code Section 11362.1, and County Code Title 130, Article 9, Section 130.14.260 (Outdoor Medical Cannabis Cultivation for Personal Use) or the transportation of cannabis or cannabis products through the County without delivery within the County on public roads by a transporter licensed under State law.

Commercial Cannabis Activities Tax means the tax due under this article for engaging in the commercial cannabis activities in the unincorporated area of the County.

Commercial cannabis operation includes all of the commercial cannabis activities performed at a premises by one person as a single operation regardless of the number of individual permits or State licenses required and regardless of whether the activity involves medicinal or adult recreational cannabis or cannabis products.

Cultivation **or** ***cultivating*** means the propagation, planting, growing, harvesting, drying, curing, grading, or trimming of one or more cannabis plants or any part thereof.

Delivery means the commercial transfer of cannabis or cannabis products to a customer and includes the use by a retailer of any technology platform. (California Business and Professions Code Section 26001.)

Distribution means the procurement, sale, and transport of cannabis and cannabis products between licensed cannabis businesses, but not the direct sale or transport to the general public.

Distributor means a person engaged in the distribution of cannabis and/or cannabis products between cannabis businesses.

Dried flower means all dead cannabis that has been harvested, dried, cured, or otherwise processed, excluding leaves and stems.

Flowering means that a cannabis plant has formed a mass of pistils measuring greater than one half inch wide at its widest point.

Gross receipts shall have the same meaning as set forth in California Revenue and Taxation Code Section 6012.

Immature plant* or *immature means a cannabis plant that has a first true leaf measuring greater than one half inch long from base to tip (if started from seed) or a mass of roots measuring greater than one half inch wide at its widest point (if vegetatively propagated), but which is not flowering.

Indoor cultivation means the cultivation of cannabis within a permanent structure using exclusively artificial light or within any type of structure using artificial light at a rate above 25 watts per square foot.

Infusion means a process by which cannabis, cannabinoids, or cannabis concentrations are directly incorporated into a product formulation to produce a cannabis product.

Legal parcel means any parcel of real property that may be separately sold in compliance with the Subdivision Map Act (Division 2 (commencing with Government Code Section 66410) of Title 7 of the Government Code).

Manufacture means all aspects of the extraction and/or infusion processes, including processing, preparing, holding, storing, packaging, or labeling of cannabis, cannabis products, or other components and ingredients that is performed pursuant to a license issued by the California Department of Public Health's Manufactured Cannabis Safety Branch.

Mature plant means a cannabis plant that is flowering.

Medical* or *medicinal cannabis means cannabis grown for personal medicinal use by a qualified patient as defined in Health and Safety Code Section 11362.7 or a person with a valid cannabis identification card issued under Health and Safety Code Section 11362.71.

Mixed-light cultivation means the cultivation of mature cannabis in a greenhouse, hoop-house, glass house, conservatory, hothouse, or other similar structure using a combination of natural light or light deprivation and artificial lighting at a rate of six watts per square foot or less.

Nursery means all activities associated with producing clones, immature plants, seeds, and other agricultural products used specifically for the propagation and cultivation of cannabis.

Organic certification standards means the organic certification adopted by the California Department of Food and Agriculture for cannabis pursuant to Business and Professions Code Section 26062.

Outdoor cultivation means cultivation activities that are not conducted within a fully enclosed, permitted building, constructed of solid materials, accessible only through one or more locking doors.

Owner means any person that constitute an "owner" under the regulations promulgated by the Bureau of Cannabis Control and (1) a person with any ownership interest, however small, in the person applying for a permit, unless the interest is solely a security, lien, or encumbrance; (2) the chief executive officer of a nonprofit or other entity; (3) a member of the board of directors of a nonprofit entity; (4) a person who will be participating in the direction, control, or management of the person applying for a permit, including but not limited to a general partner of a partnership, a non-member manager or managing member of a limited liability company, and an officer or director of a corporation; or (5) a person who will share in any amount of the profits of the person applying for a permit or has a financial interest, as defined by the regulations promulgated by the Bureau of Cannabis Control, in the person applying for the permit.

Person means any individual, firm, partnership, joint venture, association, corporation, limited liability company, cooperative, collective, organization, entity, estate, trust, business trust, receiver, syndicate, or any other group or combination acting as a unit, whether as principal, agent, employee, or otherwise, and the plural as well as the singular.

Premises means a single, legal parcel of property. Where contiguous legal parcels are under common ownership or control, such contiguous legal parcels may be counted as a single "premises."

Process **or** ***processing*** means all cannabis business activities associated with drying, curing, grading, trimming, storing, packaging, and labeling of raw cannabis, or any part thereof, for transport.

Processor means a cultivation site that conducts only trimming, drying, curing, grading, packaging, or labeling of cannabis and non manufactured cannabis products.

Propagate **or propagation** means to cultivate immature plants from cannabis plant cuttings or seeds.

Retail sale, sell, **and** ***to sell*** means any transaction whereby, for any consideration, title to cannabis or cannabis products is transferred from one person to another, and includes the delivery of cannabis or cannabis products pursuant to an order placed for the purchase of the same and soliciting or receiving an order for the same, but does not include the return of cannabis or cannabis products by a cannabis permittee to the cannabis permittee from whom the cannabis or cannabis product was purchased.

School means an institution of learning for minors, whether public or private, offering a regular course of instruction required by the California Education Code. This definition includes a nursery

school, kindergarten, elementary school, middle or junior high school, senior high school, or any special institution of education, but does not include a home school or vocational or professional institution of higher education, including a community or junior college, college, or university.

School bus stop means any location designated in accordance with California Code of Regulations, Title 13, Section 1238, to receive school buses, as defined in Vehicle Code Section 233, or school pupil activity buses, as defined in Vehicle Code Section 546. *Testing laboratory* or *laboratory* means a laboratory, facility, or entity in California that offers or performs tests of cannabis or cannabis products and that is accredited by an accrediting body that is independent from all other persons involved in commercial cannabis activity in the state.

Transport* or *transportation means the transfer of cannabis from the licensed cannabis business site of one State commercial cannabis licensee to the State licensed cannabis business site of another State commercial cannabis licensee for the purposes of conducting cannabis business activities as authorized pursuant to California Business and Professions Code Section 26000 et seq.

Treasurer-Tax Collector means the Treasurer-Tax Collector of the County of El Dorado, his or her deputies, unless another County officer or employee is assigned by resolution of the Board of Supervisors, to perform all or a portion of the duties as listed herein, in which case, the Treasurer-Tax Collector shall interpreted as the person defined in the resolution.

***Watts** per square foot* means the sum of the maximum wattage of all lights identified in the designated canopy area(s) in the cultivation plan divided by the square feet of designated canopy area(s) identified in the cultivation plan.

Youth-oriented facility means any facility that caters to or provides services primarily intended for minors.

Plan:

Cultivation Premises:

The Rosewood project team is committed to being a good neighbor and corporate citizen and implementing good security measures and both, start with odor control. Aside from all odorous inventory being stored in a secure and temperature-controlled space with carbon scrubbing technology, Applicant has seeked the advice of Ray Kapahi of Environmental Permitting Specialists, an odor control specialist to ensure that we are doing our part to prevent the odors associated with cannabis from exiting our cultivation space. (Please see attached Evaluation Studies).

In addition to the aforementioned odor mitigations practicers Applicant intends to use the NextG3N gabled greenhouses which have been custom designed for cannabis cultivation including a built-in odor mitigation system. (Please refer to Site Plan for detailed information). This includes a mixture of natural and biodegradable ingredients injected into a high pressure fog system eliminate the molecules that contain odor rather than masking it. A cost effective solution to neutralizing and eliminating odors with no contamination impact.

Odor Control Devices:

The activated carbon filtration is installed to control odors being emitted from cannabis operations. Activated carbon filtration technique involves forcing the air circulating within the HVAC system through an activated carbon filter in order to filter out odors and pathogens that may pose a public health risk. Exhaust air is pushed through active carbon to scrub the smells associated with cannabis operations. The system is the easiest to install, as the filters are designed as pipes or “cans” that are connected to the inline fans and exhaust fans that can circulate the contaminated air with filtered air and outside air, respectively. This method is highly effective and can be used in combination with other technologies such as an electrostatic precipitator. Finished product will be stored in a sealed area containing one (1) 1700 cfm carbon scrubber. At the entrance of the building, we will have two (2) 2500 cfm carbon scrubbers. This will allow for the opening and closing of the main entrance door without allowing odor to leak outside the building. (Please refer to the attached evaluation studies).

Staff Training & System Maintenance Plans:

As filters age and the activated carbon becomes clogged with impurities, it will be necessary to replace the carbon filters. Applicant will replace them per the manufacturer's recommendation. In addition, the dust collector “sock” associated with the carbon filter will be changed out every 6-8 months for proper airflow. Carbon filtration is the least energy-intensive. In most cases, the energy required to run the filtration system is already accounted for in the air handling and exchange system. The excess energy necessary to force air through the filter is negligible and, depending on the size of the discharge and intake, often only slightly alters the speed of the exchange. The use and disposal of the filters create the most physical waste; however, the carbon can typically be regenerated for reuse.

Staff will be trained and calendared to replace the carbon filter, every 4-6 weeks, as per the recommendations of the manufacturer. Additionally, the “dust collector sock” will be replaced every 6-8 months. Training, for maintenance of the odor control system, will be done with every newly hired employee and every 6 months to refresh and update knowledge.

Conclusion:

Applicant has completed an onsite odor evaluation review by Ray Kapahi of Environmental Permitting Specialists. He states in his review that,... “the proposed odor control measures will reduce odor intensity to well below 7 DT (El Dorado County threshold) near the greenhouses and near the processing building. Modeling completed by EPS at several locations in El Dorado County, including Somerset, found that odor intensity decreases by distance away from the sources of cannabis odors. Specifically, EPS found odor intensity declines by 88% over 100 meters or 26.7% every 100 feet. As a result, odor intensity at the property lines at this project is estimated to be 3.5

DT or lower assuming odors are reduced to 7 DT adjacent to the greenhouses or the process building.

Further, it is the intention of the Applicant to continue to monitor thresholds throughout cultivation cycles and processing so as to, not only, adversely affect the health, safety, or enjoyment of property of persons residing near the property due to odor that is disturbing to people of normal sensitivity but to maintain but to stay within and well below the guidelines set by El Dorado County.

Appendix C

Overall Cultivation Standard Operating Procedure Summary

JSJ Enterprises
Overall Cultivation Standard Operating Procedure Summary

(This document is a summary of the policies and procedures that JSJ Enterprises will implement once licensed. Specific procedures will be drafted once the design and buildout of our site is complete)

Index

Purpose

The purpose of these Standard Operating Procedures is to outline the responsibilities of JSJ Enterprises, JSJ Enterprises's management team and Agents to ensure specific, methodical, and consistent compliance of all regulations. JSJ Enterprises will ensure the cultivation processes are compliant with all regulations defined in the California Code of Regulations Title 3 Division 8 Food and Agriculture section 8000 et al.

Definitions

"Batch" or "harvest batch" means a specifically identified quantity of dried flower or trim, leaves, and other cannabis plant matter that is uniform in strain or cultivar, harvested in whole, or in part, at the same time, and, if applicable, cultivated using the same pesticides and other agricultural chemicals.

"Canopy" means the designated area(s) at a licensed premises, except nurseries and CULTIVATORs, that will contain mature plants at any point in time, as follows:

1. Canopy shall be calculated in square feet and measured using clearly identifiable boundaries of all area(s) that will contain mature plants at any point in time, including all of the space(s) within the boundaries;
2. Canopy may be non-contiguous but each unique area included in the total canopy calculation shall be separated by an identifiable boundary that includes, but is not limited to, interior walls, shelves, greenhouse walls, hoop house walls, garden benches, hedgerows, fencing, garden beds, or garden plots; and
3. If mature plants are being cultivated using a shelving system, the surface area of each level shall be included in the total canopy calculation.

"Commercial cannabis activity" includes the cultivation, possession, manufacture, distribution, processing, storing, laboratory testing, packaging, labeling, transportation, delivery, or sale of cannabis and cannabis products

"Cultivation" means any activity involving the planting, growing, harvesting, drying, curing, grading, or trimming of cannabis.

"Cultivation site" means a location where commercial cannabis is planted, grown, harvested, dried, cured, graded, or trimmed, or a location where any combination of those

activities occurs.

"Dried flower" means all dead cannabis that has been harvested, dried, cured, or otherwise processed, excluding leaves and stems.

"Flowering" means that a cannabis plant has formed a mass of pistils measuring greater than one half inch wide at its widest point.

"Immature plant" or "immature" means a cannabis plant that has a first true leaf measuring greater than one half inch long from base to tip (if started from seed) or a mass of roots measuring greater than one half inch wide at its widest point (if vegetatively propagated), but which is not flowering.

"Indoor cultivation" means the cultivation of cannabis within a permanent structure using exclusively artificial light or within any type of structure using artificial light at a rate above twenty-five watts per square foot.

"Kief" means the resinous trichomes of cannabis that have been separated from the cannabis plant.

"Licensee" means any person holding a license

"Light deprivation" means the use of any technique to eliminate natural light in order to induce flowering.

"Lot" means a batch, or a specifically identified portion of a batch.

"Mature plant" or "mature" means a cannabis plant that is flowering.

"Mixed-light cultivation" means the cultivation of mature cannabis in a greenhouse, hoop-house, glasshouse, conservatory, hothouse, or other similar structure using a combination of:

1. Natural light and light deprivation and one of the artificial lighting models listed below:
    a. Mixed-light Tier 1" without the use of artificial light or the use of artificial light at a rate above zero, but no more than six watts per square foot;
    b. "Mixed-light Tier 2" the use of artificial light at a rate above six and below or equal to twenty-five watts per square foot; or
2. Natural light and one of the artificial lighting models listed below:
    a. "Mixed-light Tier 1" the use of artificial light at a rate above zero, but no more than six watts per square foot;

b. “Mixed-light Tier 2” the use of artificial light at a rate above six and below or equal to twenty-five watts per square foot.

“Net weight” means the weight of harvested cannabis and cannabis products, exclusive of all materials, substances, or items not part of the commodity itself, including but not limited to containers, conveyances, bags, wrappers, packaging materials, labels, and individual piece coverings, and that meet the requirements in section 8406(b).

“Non-manufactured cannabis product” means flower, shake, leaf, pre-rolls, and kief that is obtained from accumulation in containers or sifted from loose, dry cannabis flower or leaf with a mesh screen or sieve.

“Nursery” means all activities associated with producing clones, immature plants, seeds, and other agricultural products used specifically for the propagation and cultivation of cannabis.

“Outdoor cultivation” means the cultivation of mature cannabis without the use of artificial lighting or light deprivation in the canopy area at any point in time. Artificial lighting is permissible only to maintain immature plants outside the canopy area.

“Pest” means any of the following that is, or is liable to become, dangerous or detrimental to the agricultural or non-agricultural environment of the state:

1. Any insect, predatory animal, rodent, nematode, or weed; and
2. Any form of terrestrial, aquatic, or aerial plant or animal virus, fungus, bacteria, or other microorganism (except viruses, fungi, bacteria, or other microorganisms on or in living man or other living animals).

“Premises” means the designated structure or structures and land specified in the application that is owned, leased, or otherwise held under the control of the applicant or licensee where the commercial cannabis activity will be or is conducted. The premises shall be a contiguous area and shall only be occupied by one licensee.

“Pre-roll” means any combination of the following rolled in paper: flower, shake, leaf, or kief that is obtained from accumulation in containers or sifted from loose, dry cannabis flower or leaf with a mesh screen or sieve.

“Process,” “Processing,” and “Processes” mean all activities associated with the drying, curing, grading, trimming, rolling, storing, packaging, and labeling of cannabis or non

manufactured cannabis products.

“Track-and-trace system” means the state-approved system used to track commercial cannabis activity and movement. (ad) “Unique identifier” or “UID” means an alphanumeric code or designation used for reference to a specific plant on a licensed premises and any cannabis or cannabis product derived or manufactured from that plant.

“Unique identifier” or “UID” means an alphanumeric code or designation used for reference to a specific plant on a licensed premises and any cannabis or cannabis product derived or manufactured from that plant.

“Watts per square foot” means the sum of the maximum wattage of all lights identified in the designated canopy area(s) in the cultivation plan divided by the sum of the dimensions in square feet of designated canopy area(s) identified in the cultivation plan.

“Wet weight” means the weight of harvested, non-dried cannabis, on the licensed premises or being transported between licensees that does not meet the net weight requirements in section 8406(b).

Premise (Property) Diagram

Attached please find a detailed premise diagram showing all boundaries and dimensions in feet of the following proposed areas to scale:

(A) Canopy area(s), including aggregate square footage if the canopy areas are noncontiguous. All unique areas separated by identifiable boundaries pursuant to section 8000(f)
(B) Area(s) outside of the canopy where only immature plants shall be maintained
(C) Designated pesticide and other agricultural chemical storage area(s);
(D) Designated processing area(s) if the licensee will process on site.
(E) Designated packaging area(s) if the licensee will package products on site.
(F) Designated composting area(s) if the licensee will compost cannabis waste on site;
(G) Designated secured area(s) for cannabis waste if different from subsection (F) above;
(H) Designated area(s) for harvested cannabis storage;

(I) Designated area(s) for physically segregating cannabis or non manufactured cannabis products subject to an administrative hold pursuant to section 8604.
(J) Designated area(s) that are shared between licenses held by one licensee.
(K) Common use area(s), such as hallways, bathrooms, or break rooms.

General Procedures

Employee Hiring

All JSJ Enterprises employees will be hired and trained according to California state law.

Employee Badges

All JSJ Enterprises personnel will be provided an employee badge as per state regulations.

Permit Renewal Procedures

The El Dorado County Permit will be renewed as per the timeline indicated in the EDC ordinance.

Cultivation License Renewal

The state license will be renewed as per the timeline indicated in the state regulations.

CULTIVATOR understands that, per CDFA, cultivation licenses shall be valid for twelve (12) months from the date of issuance.

CULTIVATOR understands that, per CDFA, cultivation licenses are not transferable or assignable to any other person or property.

CULTIVATOR understands that, per CDFA, an application for renewal of a cultivation license shall be submitted to the department no earlier than sixty (60) calendar days before the expiration of the license and no later than 5:00 p.m. Pacific Time on the last business day before the expiration of the license if the renewal form is submitted to the department at its office(s), or no later than 11:59 p.m. on the last business day before the expiration of the license if the renewal form is submitted to the department through its electronic licensing system. Failure to receive a notice for license renewal does not relieve a licensee of the obligation to renew all licenses as

required.

CULTIVATOR understands and agrees to notify the CDFA in writing within ten (10) calendar days of any change to any item listed in the application and any of the following events:

1. Disciplinary proceeding initiated by any state or local government agency;
2. Bankruptcy filing, including any proceeding for the assignment for the benefit of creditors, by the licensee or any owner listed on the application for licensure;
3. Temporary closure longer than thirty (30) calendar days. Include in the notification the reason for temporary closure and expected duration of closure;
4. Modifications to the cultivation plan pursuant to section 8106 of this chapter that do not require pre approval pursuant to section 8205 of this chapter; and
5. Any change in ownership that does not affect the business entity type. New owners shall submit all information pursuant to section 8102(i) of this chapter.

CULTIVATOR agrees to notify CDFA in writing of the following within forty-eight (48) hours of:

1. Receiving a criminal conviction or civil judgment rendered against the licensee or any owner;
2. Receiving notification of the revocation of a local license, permit, or other authorization;
3. Receiving an administrative order for violations of labor standards against the licensee or any owner in his or her individual capacity. The written notification shall include the date of the order, the name of the agency issuing the order, and a description of the administrative penalty or judgement rendered against the licensee; and
4. Any change in the licensee's designated track-and-trace system account manager identified pursuant to section 8109

CULTIVATOR agrees, per CDFA, not to make a physical modification of the licensed premises that materially or substantially alters the licensed premises or the use of the licensed premises as specified in the premises diagram originally filed with the license application without the prior written approval of the department.

CULTIVATOR understands that, per CDFA, in the event of the death, incapacity, receivership, assignment for the benefit of creditors of an owner, or other event rendering an owner incapable of performing the duties associated with the license, the owner's successor in interest (e.g., appointed guardian, executor, administrator, receiver, trustee, or assignee) shall notify the department within ten (10) calendar days.

CULTIVATOR understands that, per CDFA, Weighing devices used by shall be approved, registered, tested, and sealed pursuant to chapter 5 (commencing with section 12500) of division 5 of the Business and Professions Code and its implementing regulations and registered with the

county sealer consistent with chapter 2 (commencing with section 12240) of division 5 of the Business and Professions Code and its implementing regulations. Approved, registered, tested, and sealed devices shall be used whenever any one or more of the following apply:

1. Cannabis and non manufactured cannabis products are bought or sold by weight or count;
2. Cannabis and non manufactured cannabis products are packaged for sale by weight or count;
3. Cannabis and non manufactured cannabis products are weighed or counted for entry into the track-and-trace system; or
4. The weighing device is used for commercial purposes as defined in section 12500 of the Business and Professions Code.

CULTIVATOR understands that, per CDFA, in any county in which a sealer is unable or not required to approve, register, test, and seal weighing devices used by a licensee, the department may perform the duties of the county sealer in the same manner, to the same extent, and with the same authority as if it had been the duly appointed sealer in such county. In those instances, the department shall charge a licensee for its services using the schedule of fees established in Business and Professions Code section 12240.

CULTIVATOR understands that, per CDFA, a licensee must use wet weight or net weight. Wet weight and net weight shall be measured, recorded, and reported in U.S. customary units (e.g., ounce or pound); or International System of Units (e.g., kilograms, grams, or milligrams).

CULTIVATOR understands that, per CDFA, “count” means the numerical count of the individual cannabis plants, seeds, or non manufactured cannabis product units.

CULTIVATOR understands that, per CDFA, any licensee weighing or measuring cannabis or non manufactured cannabis product in accordance with subsection (a) shall be licensed as a weighmaster

CULTIVATOR agrees, per CDFA, to comply with all of the following requirements:

1. All aggregation of product shall adhere to track-and-trace requirements pursuant to sections 8405 and 8406 of this chapter;
2. Licensees may produce non manufactured cannabis products without a manufacturing license, provided packaging and labeling requirements are met pursuant to section 8212 of this chapter; and
3. Cultivation of cannabis plants is prohibited at a licensed CULTIVATOR premises.

CULTIVATOR understands that, per CDFA, the cultivation plan for each Specialty Cottage, Specialty, Small, and Medium licenses shall include all of the following:

1. A detailed premises diagram showing all boundaries and dimensions in feet of the following proposed areas to scale:
    a. Canopy area(s), including aggregate square footage if the canopy areas are noncontiguous. All unique areas separated by identifiable boundaries pursuant to section 8000(f) shall be clearly described and labeled in the premises diagram;
    b. Area(s) outside of the canopy where only immature plants shall be maintained, if applicable. This area may not be shared among multiple licenses held by one licensee;
    c. Designated pesticide and other agricultural chemical storage area(s);
    d. Designated processing area(s) if the licensee will process on site. This area may not be shared among multiple licenses held by one licensee;
    e. Designated packaging area(s) if the licensee will package products on site. This area may not be shared among multiple licenses held by one licensee;
    f. Designated composting area(s) if the licensee will compost cannabis waste on site;
    g. Designated secured area(s) for cannabis waste if different from subsection (F) above;
    h. Designated area(s) for harvested cannabis storage;
    i. Designated area(s) for physically segregating cannabis or non manufactured cannabis products subject to an administrative hold pursuant to section 8604 of this chapter. This area may not be shared among multiple licenses held by one licensee;
    j. Designated area(s) that are shared between licenses held by one licensee. The shared area(s) must be contiguous, be indicated on the property diagram for each application, and be one or more of the following designated area(s) shared between licenses held by one licensee: pesticide and other agricultural chemical storage area(s), composting area(s), and secured area(s) for cannabis waste;
    k. Common use area(s), such as hallways, bathrooms, or break rooms. This area may be shared by multiple licensees.
2. For indoor and mixed-light license type applications, a lighting diagram with the following information shall be included:
    a. Location of all lights in the canopy area(s); and
    b. Maximum wattage, or wattage equivalent, of each light.
3. A pest management plan which shall include, but not be limited to, the following:
    a. Product name and active ingredient(s) of all pesticides to be applied to cannabis during any stage of plant growth;
    b. Integrated pest management protocols, including chemical, biological, and cultural methods the applicant anticipates using to control or prevent the introduction of pests on the cultivation site;

c. A signed attestation that states the applicant shall contact the appropriate County Agricultural Commissioner regarding requirements for legal use of pesticides on cannabis prior to using any of the active ingredients or products included in the pest management plan and shall comply with all pesticide laws.

4. A cannabis waste management plan meeting the requirements of section 8108.

CULTIVATOR understands that. Per CDFA, the following information shall be provided for each water source identified by the applicant:

1. Retail water supply sources:
    a. If the water source is a retail water supplier, as defined in section 13575 of the Water Code, such as a municipal provider, provide the following:
        i. Name of the retail water supplier; and
        ii. A copy of the most recent water service bill.
    b. If the water source is a small retail water supplier, such as a delivery service, and is subject to subsection (a)(1)(B) of section 26060.1 of the Business and Professions Code and either:
        i. The retail water supplier contract is for delivery or pickup of water from a surface water body or an underground stream flowing in a known and definite channel, provide all of the following:
            1. The name of the retail water supplier under the contract;
            2. The water source and geographic location coordinates in either latitude and longitude or the California Coordinate System of any point of diversion used by the retail water supplier to divert water delivered to the applicant under the contract;
            3. The authorized place of use of any water right used by the retail water supplier to divert water delivered to the applicant under the contract;
            4. The maximum amount of water delivered to the applicant for cannabis cultivation in any year; and
            5. A copy of the most recent water service bill; or
        ii. The retail water supplier contract is for delivery or pickup of water from a groundwater well, provide all of the following:
            1. The name of the retail water supplier under the contract;
            2. The geographic location coordinates for any groundwater well used to supply water delivered to the applicant, in either latitude and longitude or the California Coordinate System;
            3. The maximum amount of water delivered to the applicant for cannabis cultivation in any year;
            4. A copy of the well completion report filed with the Department of Water Resources pursuant to section 13751 of the Water Code for each percolating groundwater well used to divert water delivered

to the applicant. If no well completion report is available, the applicant shall provide evidence from the Department of Water Resources indicating that the Department does not have a record of the well completion report. When no well completion report is available, the State Water Resources Control Board may request additional information about the well; and

5. A copy of the most recent water service bill.

c. If the water source is a groundwater well:
    i. The groundwater well's geographic location coordinates in either latitude and longitude or the California Coordinate System; and
    ii. A copy of the well completion report filed with the Department of Water Resources pursuant to section 13751 of the Water Code. If no well completion report is available, the applicant shall provide evidence from the Department of Water Resources indicating that the Department of Water Resources does not have a record of the well completion report. If no well completion report is available, the State Water Resources Control Board may request additional information about the well.
d. If the water source is a rainwater catchment system:
    i. The total square footage of the catchment footprint area(s);
    ii. The total storage capacity, in gallons, of the catchment system(s); and
    iii. A detailed description and photographs of the rainwater catchment system infrastructure, including the location, size, and type of all surface areas that collect rainwater. Examples of rainwater collection surface areas include a rooftop and greenhouse.
e. If the water source is a diversion from a waterbody (such as a river, stream, creek, pond, lake, etc.), provide any applicable water right statement, application, permit, license, or small irrigation use registration identification number(s), and either:
    i. A copy of any applicable statement, registration certificate, permits, licenses, or proof of a pending application issued under part 2 (commencing with section 1200) of division 2 of the California Water Code as evidence of approval of a water diversion by the State Water Resources Control Board;
    ii. If the applicant has claimed an exception from the requirement to file a statement of diversion and use pursuant to section 5101 of the Water Code, the applicant shall provide a copy of the documentation submitted to the State Water Resources Control Board before January 1, 2019 demonstrating that the diversion is subject to subsection (a), (c), (d), or (e) of section 5101 of the Water Code.

CULTIVATOR understands that, per CDFA, a person shall be limited to one (1) Medium Outdoor, or one (1) Medium Indoor, or one (1) Medium Mixed-Light A-License or M-License. This shall remain in effect until January 1, 2023.

CULTIVATOR understands that, per CDFA, licensees are prohibited from accepting returns of cannabis plants or non manufactured cannabis products after transferring possession of cannabis plants or non manufactured cannabis products to another licensee after testing is performed pursuant to section 26110 of the Business and Professions Code.

CULTIVATOR understands that, per CDFA, all licensees shall comply with all of the following environmental protection measures:

1. Compliance with section 13149 of the Water Code as implemented by the State Water Resources Control Board, Regional Water Quality Control Boards, or California Department of Fish and Wildlife;
2. Compliance with any conditions requested by the California Department of Fish and Wildlife or the State Water Resources Control Board under section 26060.1(b)(1) of the Business and Professions Code;
3. All outdoor lighting used for security purposes shall be shielded and downward facing;
4. Immediately halt cultivation activities and implement section 7050.5 of the Health and Safety Code if human remains are discovered;
5. Requirements for generators pursuant to section 8306.
6. Compliance with pesticide laws and regulations pursuant to section 8307
7. Mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare.

CULTIVATOR understands that, per CDFA, Beginning January 1, 2023, all indoor, tier 2 mixed-light license types of all sizes, and nurseries using indoor or tier 2 mixed- light techniques, shall ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program, division 1, part 1, chapter 2.3, article 16 (commencing with section 399.11) of the Public Utilities Code. As evidence of meeting the standard, licensees shall comply with the following:

1. If a licensee's average weighted greenhouse gas emission intensity as provided in section 8203(g)(4) is greater than the local utility provider's greenhouse gas emission intensity, the licensee shall provide evidence of carbon offsets from any of the following sources to cover the excess in carbon emissions from the previous annual licensed period:
    a. Voluntary greenhouse gas offset credits purchased from any of the following recognized and reputable voluntary carbon registries:
        i. American Carbon Registry;
        ii. Climate Action Reserve;

iii. Verified Carbon Standard.

b. Offsets purchased from any other source are subject to verification and approval by the Department.

2. New licensees, without a record of weighted greenhouse gas emissions intensity from the previous calendar year, shall report the average weighted greenhouse gas emissions intensity, as provided in section 8203(g)(4), used during their licensed period at the time of license renewal. If a licensee's average weighted greenhouse gas emissions intensity is greater than the local utility provider's greenhouse gas emissions intensity for the most recent calendar year, the licensee shall provide evidence of carbon offsets or allowances to cover the excess in carbon emissions from any of the sources provided in subsection (a).

CULTIVATOR understands that, per CDFA, Licensees using generators rated at fifty (50) horsepower and greater shall demonstrate compliance with either, as applicable, the Airborne Toxic Control Measure for stationary engines pursuant to title 17, division 3, chapter 1, subchapter 7.5, sections 93115 through 93115.15 of the California Code of Regulations, or the Airborne Toxic Control Measure for portable engines pursuant to title 17, division 3, chapter 1, subchapter 7.5, sections 93116 through 93116.5 of the California Code of Regulations. Compliance shall be demonstrated by providing a copy of one of the following to the department upon request:

1. For portable engines, a Portable Equipment Registration Certificate provided by the California Air Resources Board; or
2. For portable or stationary engines, a Permit to Operate, or other proof of engine registration, obtained from the Local Air District with jurisdiction over the licensed premises.

CULTIVATOR understands that, per CDFA, Licensees using generators rated below fifty (50) horsepower shall comply with the following by 2023:

1. Either (A) or (B):
    a. Meet the "emergency" definition for portable engines in title 17, division 3, chapter 1, subchapter 7.5, sections 93116.2(a)(12) of the California Code of Regulations, or the "emergency use" definition for stationary engines in title 17, division 3, chapter 1, subchapter 7.5, section 93115.4(a)(30); or
    b. Operate eighty (80) hours or less in a calendar year; and
2. Either (A) or (B):
    a. Meet Tier 3 with Level 3 diesel particulate filter requirements pursuant to title 13, division 3, chapter 14, sections 2700 through 2711 of the California Code of Regulations;

b. Meet Tier 4, or current engine requirements if more stringent, pursuant to title 40, chapter I, subchapter U, part 1039, subpart B, section 1039.101 of the Code of Federal Regulations.

CULTIVATOR understands that, per CDFA, all generators shall be equipped with non-resettable hour-meters. If a generator does not come equipped with a non- resettable hour-meter an after-market non-resettable hour-meter shall be installed.

Disaster Plan

CULTIVATOR understands that, per CDFA, If a licensee is unable to comply with any licensing requirement(s) due to a disaster, the licensee may notify the department of this inability to comply and request relief from the specific licensing requirement(s).

CULTIVATOR understands that, per CDFA, The department may exercise its discretion to provide temporary relief from specific licensing requirements for licensees whose operations have been impacted by a disaster.

CULTIVATOR understands that, per CDFA, Temporary relief from specific licensing requirements shall be issued for a reasonable amount of time as determined by the department in order to allow the licensee to recover from the disaster.

CULTIVATOR understands that, per CDFA, The department may require that certain conditions be followed in order for a licensee to receive temporary relief from specific licensing requirements.

CULTIVATOR understands that, per CDFA, A licensee shall not be subject to enforcement action for a violation of a licensing requirement from which the licensee has received temporary relief.

CULTIVATOR understands that, per CDFA, For the purposes of this section, “disaster” means condition of extreme peril to the safety of persons and property within the state or a county, city and county, or city caused by such conditions such as air pollution, fire, flood, storm, tidal wave, epidemic, riot, drought, terrorism, sudden and severe energy shortage, plant or animal infestation or disease, Governor’s warning of an earthquake or volcanic prediction, or an earthquake, or similar public calamity, other than conditions resulting from a labor controversy, for which the

Governor has proclaimed a state of emergency in accordance with Government Code sections 8558 and 8625, or for which a local governing body has proclaimed a local emergency in accordance with Government Code sections 8558 and 8630.

CULTIVATOR understands that, per CDFA, A licensed premises that has been vacated by a licensee due to a disaster shall not be deemed to have been surrendered, abandoned, or quit pursuant to section 8208 of this chapter.

CULTIVATOR understands that, per CDFA, if a licensee needs to move cannabis and non manufactured cannabis products stored on the premises to another location immediately to prevent loss, theft, or degradation of the cannabis and non manufactured cannabis products from the disaster, the licensee may move the cannabis without obtaining prior approval from the department if the following conditions are met:

1. The cannabis and non manufactured cannabis products are moved to a secure location where access to the cannabis is restricted to the licensee, its employees, and contractors;
2. The licensee notifies the department in writing that the cannabis and non manufactured cannabis products have been moved and that the licensee is requesting relief from complying with specific licensing requirements pursuant to subsection (a) of this section within twenty-four (24) hours of moving the cannabis;
3. The licensee provides the department access to the location where the cannabis and non manufactured cannabis products have been moved to for inspection; and
4. The licensee submits in writing to the department within ten (10) calendar days of moving the cannabis and non manufactured cannabis products a request for temporary relief that clearly indicates the statutory and regulatory sections from which relief is requested, the time period for which the relief is requested, and the reasons relief is needed for the specified amount of time.

Inventory Plan

Processed Inventory Receiving Procedures

All harvested inventory will be dried and cured in our limited access processing space to ensure the security of the product.

Inventory Audit Procedures

All cultivation inventory will be audited every 30 days as per state regulation. This audit procedure will involve a physical audit of all product present in the processing and inventory space as well as an audit of the METRC system. The METRC records will be compared to the physical audit records and any discrepancies will be reported immediately as prescribed by state regulation.

CULTIVATOR understands that CDFA may perform an audit of the physical inventory and inventory as reported in the track-and-trace system of any licensee at the department's discretion. Inventory audits of the licensee shall be conducted during standard business hours or at other reasonable times as mutually agreed to by the department and the licensee. For the purposes of this section, standard business hours are 8:00am – 5:00pm (Pacific Time). Prior notice of an inventory audit is not required.

Cultivation Plan

CULTIVATOR understands that, per CDFA, cannabis plants maintained outside of the designated canopy area(s) for specialty cottage, specialty, small, and medium licenses are prohibited from flowering. Should plants outside of the canopy area(s) begin to flower, a UID shall be applied, the plant(s) shall be moved to the designated canopy area without delay, and reported in the track-and-trace system.

CULTIVATOR understands that, per CDFA, all plants or portions of a plant used for seed production shall be tagged with a UID

CULTIVATOR understands that, per CDFA, licensees propagating immature plants for distribution or seed for distribution to another licensee shall obtain a nursery license.

CULTIVATOR understands that, per CDFA, licensees shall process their harvested cannabis only in area(s) designated for processing in their cultivation plan provided they are compliant with packaging and labeling requirements pursuant to section 8212 of this chapter, or transfer their harvested cannabis to a licensed processor, manufacturer, or distributor via a licensed distributor.

Nursery Plan

JSJ Enterprises intends to cultivate mother plants for the purpose of cloning cuttings for full cultivation. All mother plants will be stored in the designated nursery location. All cuttings will be cloned in batches of 100 and placed into the METRC system. Once cuttings are deemed ready, they will be transferred to vegetation and entered into METRC.

CULTIVATOR understands that, per CDFA, nursery licensees producing seed for distribution shall tag all mature plants with a UID pursuant to section 8403(b)(4) of this chapter. All products, except seed, derived from these plants are prohibited from entering the commercial distribution chain.

CULTIVATOR understands that, per CDFA, nursery licensees may maintain a research and development area, as identified in their cultivation plan, for the cultivation of mature plants. All mature plants shall be tagged with a UID pursuant to section 8403 of this chapter. All products derived from these plants are prohibited from entering the commercial distribution chain.

Vegetation Plan

All cuttings, transferred to vegetation will be entered into METRC and placed under lights for up to 8 weeks of the vegetative cycle. During this time, the plants will be observed, watered and given nutrients to ensure that they stay in a healthy vegetative state.

Flowering Plan

Prior to transfer to the flowering area, all plants will be entered into METRC to reflect the transfer to the flowering space. Plants will be placed under lights, appropriate for flowering canopy, for up to 8 weeks of the flowering cycle. During this time, the plants will be observed, watered and given nutrients to ensure that they stay in a healthy flowering state.

Harvest Plan

Once plants are deemed ready for harvest, the SJS Enterprises management team will contact a designated staffing agency and up to 5 additional temporary staff members will be coordinated to assist with the harvesting process.

Each plant will be entered into METRC, cut at the base of the plant, taken to the designated processing space and hung in the temperature and humidity controlled limited access room.

Processing Plan

All harvested plants will spend between 2-4 weeks in the drying and curing state in the processing area. Plant material will be bucked from the stalks and separated for usage as manicured flower and manufactured product.

All plant material, destined for packaged flower, will be hand trimmed to ensure the best possible product for packaging. All trimmed material will then be transferred to manufacturing for the purpose of usage in a manufactured product.

CULTIVATOR understands that, per CDFA, the definition of processing includes all activities associated with the drying, curing, grading, trimming, rolling, storing, packaging, and labeling of cannabis or non manufactured cannabis products.

Packaging and Labeling Plan

JSJ Enterprises does not forsee the need for packaging and labeling of packaged flower within the cultivation premise. All processed flower will be transferred to Manufacturing for the purpose of packaging. Should this change, JSJ Enterprises will notify El Dorado County and CDFA of the change.

All cannabis products will be packaged and labeled in the designated packaging and labeling area on the Premise Diagram.

All packaging will be sampled and reviewed for local and state regulatory compliance upon receipt of each shipment. Additionally, prior to transport to full distribution, all packaged cannabis flower products will be sampled to assure that it meets local and regulatory compliance.

Once trimmed, flower is ready for packaging, it will be moved to the designated packaging area for packaging by batch number. Each batch of flower will be weighed on a certified scale, by a certified weighmaster, and then placed into containers based upon weight. All required labels will be placed on the trimmed flower packaging and sealed in a child-resistant manner. Once completed, all packages will be boxed in cases for return to inventory and transport to full distribution.

All cannabis and non manufactured cannabis products, per CDFA, packaged and/or labeled by CULTIVATOR will meet all of the following:

1. All applicable requirements including implementing regulations pursuant to sections 26120 and 26121 of the Business and Professions Code;
2. Any other requirements for cannabis and non manufactured cannabis product specified by the bureau and the California Department of Public Health;
3. Packaging and labeling requirements pursuant to chapter 6 (commencing with section 12601), division 5 of the Business and Professions Code.
4. Beginning January 1, 2020, a package for retail sale, excluding those containing immature plants and seeds, shall be child-resistant

CULTIVATOR understands that, per CDFA, a label may specify the county of origin only if one hundred (100) percent of the cannabis or non manufactured cannabis product contained in the package was produced within the designated county, as defined by finite political boundaries.

CULTIVATOR understands that, Per CDFA, packages and labels shall not be made to be attractive to children.

CULTIVATOR understands that, per CDFA, all marijuana and marijuana product labels and inserts shall include the following information prominently displayed in a clear and legible fashion in accordance with the requirements, including font size, prescribed by the bureau or the State Department of Public Health:

1. Manufacture date and source.
2. The following statements, in bold print:
    a. For marijuana: GOVERNMENT WARNING: THIS PACKAGE CONTAINS MARIJUANA, A SCHEDULE I CONTROLLED SUBSTANCE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. MARIJUANA MAY ONLY BE POSSESSED OR CONSUMED BY PERSONS 21 YEARS OF AGE OR OLDER UNLESS THE PERSON IS A QUALIFIED PATIENT. MARIJUANA USE WHILE PREGNANT OR BREASTFEEDING MAY BE HARMFUL. CONSUMPTION OF MARIJUANA IMPAIRS YOUR ABILITY TO DRIVE AND OPERATE MACHINERY. PLEASE USE EXTREME CAUTION.
3. For packages containing only dried flower, the net weight of marijuana in the package.
4. Identification of the source and date of cultivation, the type of marijuana or marijuana product and the date of manufacturing and packaging.
5. The appellation of origin, if any.
6. List of pharmacologically active ingredients, including, but not limited to, tetrahydrocannabinol (THC), cannabidiol (CBD), and other cannabinoid content, the THC and other cannabinoid amount in milligrams per serving, servings per package, and the THC and other cannabinoid amount in milligrams for the package total, and the potency of the marijuana or marijuana product by reference to the amount of tetrahydrocannabinol and cannabidiol in each serving.
7. For marijuana products, a list of all ingredients and disclosure of nutritional information in the same manner as the federal nutritional labeling requirements in Section 101.9 of Title 21 of the Code of Federal Regulations.

CULTIVATOR understands that, per CDFA, a cannabis product is misbranded if:

1. Its labeling is false or misleading in any particular.
2. Its labeling or packaging does not conform to the requirements of Section 26120

CULTIVATOR understands that, per CDFA, it is unlawful for any person to manufacture, sell, deliver, hold, or offer for sale a cannabis product that is misbranded.

CULTIVATOR understands that, per CDFA, it is unlawful for any person to misbrand a cannabis product.

CULTIVATOR understands that, per CDFA, it is unlawful for any person to receive in commerce a cannabis product that is misbranded or to deliver or offer for delivery any such cannabis product.

CULTIVATOR understands that, per CDFA, weighing devices used by a licensee shall be approved, registered, tested, and sealed pursuant to chapter 5 (commencing with section 12500) of division 5 of the Business and Professions Code and its implementing regulations and registered with the county sealer consistent with chapter 2 (commencing with section 12240) of division 5 of the Business and Professions Code and its implementing regulations.

CULTIVATOR understands that, per CDFA, approved, registered, tested, and sealed devices shall be used whenever any one or more of the following apply:

1. Cannabis and non manufactured cannabis products are bought or sold by weight or count;
2. Cannabis and non manufactured cannabis products are packaged for sale by weight or count;
3. Cannabis and non manufactured cannabis products are weighed or counted for entry into the track-and-trace system; or
4. The weighing device is used for commercial purposes as defined in section 12500 of the Business and Professions Code.

CULTIVATOR understands that, per CDFA, in any county in which a sealer is unable or not required to approve, register, test, and seal weighing devices used, the department may perform the duties of the county sealer in the same manner, to the same extent, and with the same authority as if it had been the duly appointed sealer in such county.

CULTIVATOR understands that, per CDFA, any licensee weighing or measuring cannabis or non manufactured cannabis product in accordance with subsection (a) shall be licensed as a weighmaster.
CULTIVATOR understands that a licensed weighmaster shall issue a weighmaster certificate whenever payment for the commodity or any charge for service or processing of the commodity is dependent upon the quantity determined by the weighmaster in accordance with section 12711 of the Business and Professions Code and shall be consistent with the requirements in chapter 7 (commencing with section 12700) of division 5 of the Business and Professions Code.

Track-and-Trace Plan

Track-and-Trace Training Plan

The designated JSJ Enterprises METRC manager will enter into METRC training within 10 days of the issuance of their cultivation license as per CDFA regulations.

Track-and-Trace Entry Plan

All required information will be entered into the METRC system, within the designated time frame, as per El Dorado County rules and state regulations.

CULTIVATOR agrees, per CDFA, to designate an owner to be the licensee's track-and-trace system account manager pursuant to section 8402(c)

CULTIVATOR agrees that, per CDFA, the designated account manager shall register for track-and-trace system training within ten (10) calendar days of receiving notice from the department that its application for licensure has been received and is complete.

CULTIVATOR understands that, per CDFA, no one owner or manager shall have access to the track-and-trace system until the designated account manager has completed the track-and-trace training and proof of completion has been validated by the department.

CULTIVATOR agrees, per CDFA, to report in the track-and-trace system the disposition of immature and mature plants, non manufactured cannabis products on the licensed premises, any transfers associated with commercial cannabis activity between licensees, and any cannabis waste.

CULTIVATOR understands that, per CDFA, they are responsible for the accuracy and completeness of all data and information entered into the track-and-trace system. Data entered into the track-and-trace system is assumed to be accurate and can be used to take enforcement action against the licensee if not corrected.

CULTIVATOR agrees, per CDFA, to use the track-and-trace system for recording all applicable commercial cannabis activities.

CULTIVATOR understands that, per CDFA, the designated track-and-trace system account manager shall be responsible for all the following:

1. Complete track-and-trace system training provided by the department. If the designated account manager did not complete the track-and-trace system training prior to the licensee receiving his or her annual license, the designated account manager will be required to register for the track-and-trace system training provided by the department within five (5) calendar days of license issuance;
2. Designate track-and-trace system users, as needed, and require the users to be trained in the proper and lawful use of the track-and-trace system before the users are permitted to access the track-and-trace system;
3. Maintain an accurate and complete list of all track-and-trace system users and update the list immediately when changes occur;
4. Within three (3) calendar days, cancel the access rights of any track-and-trace user from the licensee's track-and-trace system account if that individual is no longer authorized to use the licensee's track-and-trace system account;
5. Correct any data that is entered into the track-and-trace system in error within three (3) calendar days of discovery of the error; and
6. Notify the department immediately for any loss of access that exceeds three (3) calendar days.

CULTIVATOR understands that, per CDFA, they are responsible for all access and use of the track-and-trace system account.

CULTIVATOR understands that, per CDFA, if they lose access to the track-and-trace system for any reason, the licensee shall prepare and maintain comprehensive records detailing all required inventory tracking activities conducted during the loss of access.

CULTIVATOR agrees that, per CDFA, the track-and-trace account manager or users shall report in the track-and-trace system any and all transfers of cannabis or non manufactured cannabis products to another licensee prior to the movement of the cannabis or non manufactured cannabis products off the licensed premises.

CULTIVATOR understands that, per CDFA, the track-and-trace account manager or users shall report in the track-and-trace system any and all cannabis or non manufactured cannabis products physically received or rejected from another licensee within twenty-four (24) hours of receipt or rejection of the products.

CULTIVATOR agrees, per CDFA, to use the track-and-trace system for all inventory tracking activities at a licensed premises, including, but not limited to, all of the following:

1. Reconciling all on-premises and in-transit cannabis or non manufactured cannabis products inventories at least once every thirty (30) calendar days; and

2. Recording the net weight of all harvested cannabis once the majority of drying, trimming, and curing activities have been completed, or within sixty (60) calendar days from the initial harvest date, whichever is sooner;
3. Licensees shall close out their physical inventory of all cannabis and non manufactured cannabis product and UIDs, if applicable, prior to the effective date of any of the following changes to their license:
    a. Voluntary surrender of a temporary license or annual license;
    b. Expiration of an annual license;
    c. Revocation of a license.
4. Close-out of physical inventory includes, but is not limited to, all of the following items:
    a. Immature plants and their corresponding lot UID(s);
    b. Mature plants and their corresponding plant UID(s);
    c. Harvest batches and their corresponding UID(s);
    d. Non Manufactured cannabis products and their corresponding UID(s); and
    e. UIDs in the licensee's possession which have not been assigned in the track-and-trace system.
5. All transfers and sales shall be documented pursuant to CDFA sections 8401 and 8405.

Pesticide Plan

JSJ Enterprises LLC is exploring new "organic" pest management products on the market for 2021 and 2022. Additionally, there are comparisons being made to recognized state pesticide lists for products such as Liquid Plant Therapy, Pure Crop and Regalia.

JSJ Enterprises intends to utilize known biological pest management methods, such as ladybugs, to control some pests such as mites.

CULTIVATOR understands that, per CDFA, licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide Regulation.

CULTIVATOR understands that, per CDFA, for all pesticides that are exempt from registration requirements, licensees shall comply with all pesticide laws and regulations enforced by the Department of Pesticide regulation and with the following pesticide application and storage protocols:

1. Comply with all pesticide label directions;
2. Store chemicals in a secure building or shed to prevent access by wildlife;
3. Contain any chemical leaks and immediately clean up any spills;
4. Apply the minimum amount of product necessary to control the target pest;
5. Prevent offsite drift;

6. Do not apply pesticides when pollinators are present;
7. Do not allow drift to flowering plants attractive to pollinators;
8. Do not spray directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies;
9. Do not apply pesticides when they may reach surface water or groundwater; and
10. Only use properly labeled pesticides. If no label is available consult the Department of Pesticide Regulation.

Odor Control Plan

JSJ Enterprises has selected greenhouse solutions that factor in odor control measures. Additionally, JSJ Enterprises will adhere to the recommendations of Ray Kapahi and the Odor Memo and further outlined in the Odor Control Plan submitted with the Conditional Use Permit application.

CULTIVATOR intends to seek the advice of an air management specialist as to how to most effectively contain and mitigate any and all intrusive odors that may be produced during the processing operation.

Local Rules

Issuance of a Commercial Cannabis Use Permit…. is a discretionary act requiring compliance with the California Environmental Quality Act ("CEQA") and the applicant shall comply with Article 5, Section 130.51.030 (Environmental Review). The applicant shall be responsible for all costs associated with CEQA compliance, including but not limited to environmental analysis and studies, preparation of the appropriate CEQA document, and all County staff time, including attorney time, spent reviewing and pursuing final adoption of the appropriate environmental document.

Proof that the operations will comply with all of the County regulations and standards in the County Code for the particular commercial cannabis activity and any other applicable County regulations and standards, including but not limited to Title 130, Chapter 130.36 (Signs).

Proof that the operations will comply with all State standards and regulations by all State agencies with jurisdiction over the particular commercial cannabis activity, including submission of a copy of all documents and exhibits that are required for a State license.

No Commercial Cannabis Use Permit may be issued until a background check of all owners and the Designated Local Contact is completed with review and recommendation by the Sheriff's Office, including but not limited to criminal history, fingerprinting, and any pending charges. The applicant shall be responsible for the cost of the background check. The County may deny an application based on the results of a background check if the County determines that information in the

background check makes it more likely than not that any amount of funding for the operation will be or was derived from illegal activity or because the criminal history or other information discovered in the background check of an owner or spouse of an owner weighs against the owner's trustworthiness or ability to run a legal business in compliance with all regulations, including but not limited to the risk of involvement or influence by organized crime, prior convictions involving controlled substances or violent crimes, the likelihood that sales and income will not be truthfully reported, or the risk that cannabis will be illegally provided or sold to individuals under the age of 21.

A Commercial Cannabis Annual Operating Permit is not transferrable and automatically expires upon any change of ownership to the applicant that results in a new owner or owners or new funding source. Before or upon the transfer of the business or addition of a new owner, an application for a new Commercial Cannabis Annual Operating Permit must be submitted. While the Commercial Cannabis Use Permit may be transferred, upon issuance of the new Commercial Cannabis Annual Operating Permit, conditions to the Commercial Cannabis Use Permit and Commercial Cannabis Annual Operating Permit may be added or removed. The Director of Planning and Building may require a decision by the Planning Commission to impose any new conditions or remove any existing conditions of a Commercial Cannabis Use Permit or Commercial Cannabis Annual Operating Permit under this subsection consistent with Article 5, Section 130.54.070 (Revisions to an Approved Permit or Authorization).

Revocation After Three Violations.

In addition to revocation of a Commercial Cannabis Use Permit or Commercial Cannabis Annual Operating Permit under Article 5, Section 130.54.090 (Revocation or County Mandated Modification of a Permit), upon receipt of any combination of three administrative citations, verified violations, or hearing officer determinations of violation of any of the permit requirements or standards issued to one or more of the owners or operators at any property or combination of properties of one or more of the same owners or operators within a two-year period, the Commercial Cannabis Annual Operating Permit shall be nullified, voided, or revoked, subject to prior notice and appeal under Section 130.54.090 (Revocation or County Mandated Modification of a Permit) and the Commercial Cannabis Use Permit may be revoked, subject to prior notice and appeal under Section 130.54.090. Upon revocation, an application for a Commercial Cannabis Annual Operating Permit to reestablish a cannabis operation by one or more of the same owners or operators or at the subject property shall not be accepted for a minimum period of two years. If only the Commercial Cannabis Annual Operating Permit is revoked under this Section, reissuance shall be subject to the procedures to issue a Commercial Cannabis Use Permit, including hearing before and decision of the Planning Commission and any new or amended conditions may be added to the Commercial Cannabis Use Permit.

Monitoring Program.

All Commercial Cannabis Annual Operating Permits shall require the applicant's participation in a County-run monitoring program. The monitoring program shall be funded by applicants and will be used to conduct site visits and inspections of all commercial cannabis activities and verify compliance, including but not limited to all requirements of County Code and any site specific permit conditions and State regulations, including the State track-and-trace requirements. The Board of Supervisors shall by resolution or ordinance adopt such fees necessary to implement this monitoring

program. The annual monitoring program fees shall be collected yearly at the time of renewal of the Commercial Cannabis Annual Operating Permit.

Designated Local Contact.

No Commercial Cannabis Use Permit or Commercial Cannabis Annual Operating Permit may be issued unless a current name and contact information for a Designated Local Contact is included. The Designated Local Contact must be available by telephone on a 24-hour basis, seven days per week and be able to respond to the County within two hours and corrective action, if required, must be completed within the time requested by the County.

No less than one week before commercial cannabis operations commence, the permittee must notify the property owners and residents of property located within 1,000 feet of the perimeter of the parcel(s) upon which the commercial cannabis operations will occur and provide the name and contact information for the Designated Local Contact. Complaints made to the Designated Local Contact by any member of the public must be responded to within 24 hours of the initial complaint and corrective action, if required under any State or local law or regulation, must commence within a reasonable time based on the nature of the corrective action required. Complaints by any member of the public shall be logged in writing and the complaint log, including any corrective action taken, shall be provided to the Building and Planning Department annually with the application to renew the Commercial Cannabis Annual Operating Permit.

The permittee must immediately notify the County and owners and residents covered property owners and residents of property located within 1,000 feet of the perimeter of the parcel(s) upon which the commercial cannabis operations occur of any change to the Designated Local Contact or change to the telephone number for the Designated Local Contact.

The failure to comply with any requirement of this Section constitutes a violation subject to enforcement under this Chapter.

Outdoor and Mixed-Light Cultivation of Commercial Cannabis.

Cannabis is not an agricultural crop or product with respect to the "right to farm" ordinance in Article 4, Section 130.40.290 (Right to Farm), the establishments of Agricultural Preserves under Section 130.40.290, or any other provision in this Code that defines or allows cultivation of crops or agricultural products and nothing in Chapter 130.41 shall be construed to the contrary.

Each plant cultivated outside of the square footage provided for in the Commercial Cannabis Annual Operating Permit shall be deemed a separate violation. The determination of the plants outside of the permitted square footage shall be made with reference to the cultivation site plan submitted with an application. Each retail sale or attempted retail sale of cannabis shall be deemed a separate violation.

Permitted Zones.
Outdoor or mixed-light commercial cannabis cultivation may only be permitted in the Rural Lands (RL), Planned Agricultural (PA), Limited Agricultural (LA), and Agricultural Grazing (AG) zoned districts subject to a Commercial Cannabis Use Permit and Commercial Cannabis Annual Operating

Permit under Section 130.41.100. This Section allows outdoor or mixed-light commercial cannabis cultivation as a new use authorized by this Section only.

Minimum Site Area.
Outdoor or mixed-light cultivation of commercial cannabis is limited to sites that meet the minimum premises area of ten acres. The County may require a premises greater than ten acres to maintain consistency with other laws, surrounding residential uses, and neighborhood compatibility.

Canopy Coverage.
Outdoor or mixed-light commercial cannabis cultivation is subject to the following limits on maximum canopy based on zone district. The County may place additional and further restrictions on canopy size to maintain consistency with other laws, agricultural uses, and neighborhood compatibility. A cannabis cultivation operation shall not exceed the canopy size threshold established by State law.

Lots zoned AG, LA, and PA with a premises between 15 and 25 acres in area: Up to two percent of the size of the premises per outdoor or mixed-light cultivation operation with a maximum of four outdoor or mixed-light cultivation operations, but not to exceed 1.5 acres of total canopy coverage for that premises, excluding any nursery area.

Location.
Outdoor or mixed-light commercial cannabis cultivation shall not be located within 1,500 feet from any school, school bus stop, place of worship, park, playground child care center, youth-oriented facility, pre-school, public library, licensed drug or alcohol recovery facility, or licensed sober living facility. Distance shall be measured from the nearest point of the property line of the premises that contains the commercial cultivation to the nearest point of the property line of the enumerated use using a direct straight-line measurement. A new adjacent use does not affect the continuation of an existing use that was permitted and legally established under the standards of this Chapter.

Setbacks.
Outdoor or mixed-light cultivation of commercial cannabis shall be setback a minimum of 800 feet from the property line of the site or public right-of-way and shall be located at least 300 feet from the upland extent of the riparian vegetation of any watercourse.

Odor.
The cultivating, drying, curing, processing, and storing of cannabis shall not adversely affect the health, safety, or enjoyment of property of persons residing near the property on which cannabis is cultivated or processed due to odor that is disturbing to people of normal sensitivity. Any cannabis odor shall not be equal or greater than a seven dilution threshold ("DT") when measured by the County with a field olfactometer at the property line on which the cannabis is cultivated or processed for a minimum of two olfactometer observations not less than 15 minutes apart within a one hour period ("seven DT one hour"). If the odor from cannabis cultivating, drying, curing, processing, or storing violates this subsection, the permittee must reduce the odor below the seven DT one hour at property line threshold within the time required by the County. Notwithstanding the prior issuance of a permit, the County may require installation of one or more odor control options, which may include but are not limited to the use of a greenhouse or hoop house that includes activated carbon filtration or equivalent odor abatement control equipment on the air exhaust, a vapor-phase odor control

system, increasing the required setback, growing fewer plants, or growing only low odor cannabis strains. Installation of certain odor control options may require a permit. Any such notice requiring the use of one or more odor control options will provide a deadline for completion and the dilution threshold will be retested upon expiration of that deadline. The continued odor in excess of seven DT one hour upon retesting will constitute a violation of this Section subject to enforcement, abatement, and revocation of a Commercial Cannabis Use Permit and Commercial Cannabis Annual Operating Permit under Section 130.41.100 and Article 5, Section 130.54.090 (Revocation or County Mandated Modification of a Permit).

Water Source.
Commercial cannabis cultivation may only be permitted if sufficient evidence submitted to the County demonstrates: (1) there is adequate water supply in the watershed and water rights to serve the cultivation site; and (2) all required State permits from the State Water Resources Control Board and any other State agency with jurisdiction. Cultivation of cannabis shall not utilize water that has been or is illegally diverted from any spring, wetland, stream, creek, river, lake, unpermitted well, or body of water. The premises where the cultivation of cannabis takes place shall either be connected to a public water supply or have a County inspected and approved private water source. The activities associated with the cultivation of cannabis shall not create erosion or result in contaminated runoff into any spring, wetland, stream, creek, river, lake, or body of water.

Water Conservation Measures.
Cannabis cultivation operations shall include adequate measures that minimize the use of water for cultivation at the site. Water conservation measures, including but not limited to underground drip irrigation, soil moisture monitoring, water capture systems, grey water systems, or other equally effective water conservation measures, shall be incorporated into the cultivation operations in order to minimize the use of water where feasible.

Screening.
Cannabis shall be screened from public view so that no part of a plant can be seen from an adjacent street or adjacent parcel. Screening shall be accomplished by enclosure within a greenhouse or hoop house or by use of fencing or vegetation. All greenhouses, hoop houses, and fences shall comply with all building and zoning codes and any other applicable law or regulation. Greenhouses and hoop houses are the preferred means of screening.

Security and Wildlife Exclusionary Fencing.
Areas where cannabis is cultivated, the premises on which cannabis is cultivated, or a portion thereof that includes the cultivation area shall be secured by a minimum six-foot high solid wood or chain link wildlife exclusionary fence, such as cyclone or field game fencing, with locked gates built in compliance with building and zoning codes. All gates shall be lockable and remain locked at all times except to provide immediate entry and exit. A chain link fence is not sufficient for screening. Fencing may not be covered with plastic or cloth except that neutral-colored shade cloth may be used on the inside of the fence.

Renewable Energy.
Electrical power for outdoor or mixed-light cultivation operations, including but not limited to illumination, heating, cooling, water supply, and ventilation, shall be provided by on-grid power with a

100 percent renewable source, on-site zero net energy renewable source, or with the purchase of carbon offsets of any portion of power not from renewable sources. Generators may be used as a secondary back-up power source pursuant to a valid permit from the El Dorado County Air Quality Management District. Impacts from generator use will also be considered in the environmental analysis and site specific restrictions and conditions may be imposed to mitigate those impacts, including conditions to minimize noise.

Lighting.
All lights used for mixed-light cultivation shall be fully contained within structures or otherwise shielded to fully contain any light or glare involved in the cultivation process. Artificial lighting for mixed-light cultivation is limited to a rate of six watts per square foot or less. For outdoor and mixed-light commercial cannabis cultivation, security lighting shall be motion activated and all outdoor lighting shall comply with Article 3, Chapter 130.34 (Outdoor Lighting).

Pesticide Usage.
Preference shall be given to applicants that maintain organic certification standards or the substantial equivalent, provided that maintaining organic certification standards or the substantial equivalent is a condition of the Commercial Cannabis Use Permit and Commercial Cannabis Annual Operating Permit. Until the California Department of Food and Agriculture adopts a organic certification standards, the County Agricultural Commissioner shall determine whether a particular operation satisfies substantially equivalent organic criteria. Documentation of all pesticides used shall be presented each year as part of the Commercial Cannabis Annual Operating Permit. All pesticides and fertilizers shall be properly labeled and stored and disposed of to avoid contamination through erosion, leakage, or inadvertent damages from rodents, pests, and wildlife and to prevent harm to persons, the environment, and wildlife.

Disposal of Waste Material.
Cannabis waste material shall be disposed of in accordance with existing State and local laws and regulations at the time of disposal. Burning of cannabis waste material is prohibited.

Public Sewer or Sewage Disposal System.
The premises where the cultivation of cannabis takes place shall either be connected to a public sewer system, have a County inspected and approved sewage disposal system, or have restroom facilities deemed appropriate by the Director of the Environmental Management Department, or his or her authorized designee(s).

Nursery activities.
Nursery activities may not be permitted in a residential dwelling or accessory structure connected to a residential dwelling.

Waste Management Plan

As per section 8108 JSJ Enterprises chooses to manage the cannabis waste generated on our licensed premise as follows:

- ❏ Collection and processing of cannabis waste by a local agency, a waste hauler franchised or contracted by a local agency, or a private waste hauler permitted by a local agency; OR

CULTIVATOR understands that "cannabis waste" is organic waste, as defined in CDFA section 42649.8(c) of the Public Resources Code.

CULTIVATOR understands that, per CDFA, cannabis waste must never be reintroduced into storage of cannabis or cannabis product.

CULTIVATOR agrees, per CDFA, to manage all cannabis waste in compliance with division 30, part 3, chapters 12.8, 12.9, and 13.1 of the Public Resources Code.
CULTIVATOR agrees, per CDFA, to dispose of cannabis waste in a secured waste receptacle or in a secured area on the licensed premises designated on the licensee's premises diagram and as identified in the licensee's cultivation plan.

CULTIVATOR understands that, per CDFA, if a local agency, a waste hauler franchised or contracted by a local agency, or a private waste hauler permitted by a local agency is being used to collect and process cannabis waste, a licensee shall do all the following:

1. Obtain and retain the following information from the local agency, waste hauler franchised or contracted by the local agency, or private waste hauler permitted by the local agency that will collect and process the licensee's cannabis waste:
    a. Name of local agency providing waste hauling services, if applicable;
    b. Company name of the waste hauler franchised or contracted by a local agency or private waste hauler permitted by the local agency, if applicable;
    c. Local agency or company business address; and
    d. Name of the primary contact person at the local agency or company and contact person's phone number.
2. Obtain and retain a copy of a receipt from the local agency, waste hauler franchised or contracted by the local agency, or private waste hauler permitted by the local agency evidencing subscription to a waste collection service; and
3. Cannabis waste may be collected from a licensee in conjunction with a regular organic waste collection route used by the local agency, the waste hauler franchised or contracted by a local agency, or private waste hauler permitted by the local agency.

CULTIVATOR agrees, per CDFA, to maintain accurate and comprehensive records regarding cannabis waste that account for, reconcile, and evidence all activity related to the generation or disposition of cannabis waste. All records required by this section are records subject to inspection by the department and shall be kept pursuant to CDFA section 8400.

Security Plan

See Security Plan forwarded to the El Dorado County Sheriff's Department by security consultant Brian Clay.

CULTIVATOR understands that, per BCC, Licensees shall ensure that only employees of the licensee and other authorized individuals access the limited-access areas of the licensed premises.

CULTIVATOR understands that, per BCC, an individual who enters the limited-access area and is not employed by the licensee shall be escorted by an employee of the licensee at all times while within the limited-access area.

CULTIVATOR understands that, per BCC, a licensee shall maintain a record of all authorized individuals who are not employees of the licensee who enter the limited-access areas. The record shall include the name of the individual, the company the individual works for, the reason the individual entered the limited-access area, the date, and the times the individual entered and exited the limited-access area. These records shall be made available to the Bureau immediately upon request.

CULTIVATOR understands that, per BCC, A licensee shall not receive consideration or compensation for permitting an individual to enter the limited-access areas.

CULTIVATOR understands that, per BCC, entrances to all limited-access areas shall have a solid door and a lock meeting the requirements of section 5046. The door shall remain closed when not in use during regular business hours.

CULTIVATOR understands that, per BCC, all agents, officers, or other persons acting for or employed by a licensee shall display a laminated or plastic-coated identification badge issued by the licensee at all times while engaging in commercial cannabis activity. The identification badge shall, at a minimum, include the licensee's "doing business as" name and license number, the employee's first name, an employee number exclusively assigned to that employee for identification purposes, and a color photograph of the employee that clearly shows the full front of the employee's face and that is at least 1 inch in width and 1.5 inches in height.

CULTIVATOR understands that, per BCC, each licensed premises shall have a digital video surveillance system with a minimum camera resolution of 1280 × 720 pixels.

CULTIVATOR understands that, per BCC, the video surveillance system shall at all times be able to effectively and clearly record images of the area under surveillance.

CULTIVATOR understands that, per BCC, each camera shall be permanently mounted and in a fixed location. Each camera shall be placed in a location that allows the camera to clearly record activity occurring within 20 feet of all points of entry and exit on the licensed premises, and allows for the clear and certain identification of any person and activities in all areas required to be filmed.

CULTIVATOR understands that, per BCC, areas that shall be recorded on the video surveillance system include the following:

1. Areas where cannabis goods are weighed, packed, stored, loaded, and unloaded for transportation, prepared, or moved within the licensed premises;
2. Limited-access areas;
3. Security rooms;
4. Areas storing a surveillance-system storage device with at least one camera recording the access points to the secured surveillance recording area; and
5. Entrances and exits to the licensed premises, which shall be recorded from both indoor and outdoor vantage points.

CULTIVATOR understands that, per BCC, cameras shall record continuously 24 hours per day and at a minimum of 15 frames per second (FPS).

CULTIVATOR understands that, per BCC, the physical media or storage device on which surveillance recordings are stored shall be secured in a manner to protect the recording from tampering or theft.

CULTIVATOR understands that, per BCC, surveillance recordings shall be kept for a minimum of 90 calendar days.

CULTIVATOR understands that, per BCC, surveillance recordings are subject to inspection by the Bureau, and shall be kept in a manner that allows the Bureau to view and obtain copies of the recordings at the licensed premises immediately upon request.

CULTIVATOR understands that, per BCC, recorded images shall clearly and accurately display the time and date. Time is to be measured in accordance with the standards issued by the United States National Institute of Standards and Technology.

CULTIVATOR understands that, per BCC, the video surveillance system shall be equipped with a failure notification system that provides notification to the licensee of any interruption or failure of the video surveillance system or video surveillance-system storage device.

CULTIVATOR understands that, per BCC, if multiple licensed premises are contained within the same building, a single video surveillance system covering the entire building may be used by all of the licensees under the following conditions:

1. Each applicant or licensee shall disclose on their premises diagram where the surveillance recordings are stored.
2. Each applicant or licensee shall include in their security operating procedures, submitted with the application pursuant to section 5002(c)(29)(D) of this division, an explanation of how the video surveillance system will be shared, including who is responsible for monitoring the video footage and storing any video recordings.
3. All licensees shall have immediate access to the surveillance recordings to produce them.
4. All licensees shall be held responsible and subject to discipline for any violations of the video surveillance requirements.

CULTIVATOR understands that, per BCC, a licensee shall ensure that the limited-access areas described in section 5042 of this division can be securely locked using commercial-grade, nonresidential door locks. A licensee shall also use commercial-grade, nonresidential door locks on all points of entry and exit to the licensed premises.

CULTIVATOR understands that, per BCC, a licensee shall maintain an alarm system as defined in Business and Professions Code section 7590.1(n) at the licensed premises.

CULTIVATOR understands that, per BCC, a licensee shall ensure a licensed alarm company operator or one or more of its registered alarm agents installs, maintains, monitors, and responds to the alarm system.

CULTIVATOR understands that, per BCC, Upon request, a licensee shall make available to the Bureau all information related to the alarm system, monitoring, and alarm activity.

CULTIVATOR understands that, per BCC, if multiple licensed premises are contained within the same building, a single alarm system covering the entire building may be used by all of the licensees under the following conditions:

1. Each licensee shall include in their security operating procedures, submitted with the application pursuant to section 5002(c)(29)(D) of this division, an explanation of how the alarm system will be shared, including who is responsible for contracting with the alarm company.
2. All licensees shall have access to and be able to provide the information under subsection (c) of this section.
3. All licensees shall be held responsible and subject to discipline for any violations of the alarm system requirements.

Record-Keeping Plan

JSJ Enterprises intends to comply with a ll local rules and state regulations pertaining to record keeping as follows:

CULTIVATOR agrees, per CDFA, to keep and maintain records for at least seven (7) years from the date the document was created.

CULTIVATOR agrees, per CDFA, to keep records, either electronically or otherwise, on the premises of the location licensed. All required records shall be kept in a manner that allows the records to be examined at the licensed premises or delivered to the department, upon request.

CULTIVATOR understands that, per CDFA, all records are subject to review by the department during standard business hours or at any other reasonable time as mutually agreed to by CDFA. For the purposes of this section, standard business hours are deemed to be 8:00am - 5:00pm (Pacific Time). Prior notice to review records is not required.

CULTIVATOR agrees, per CDFA, to maintain all the following records on the licensed premises, including but not limited to:

1. Department issued cultivation license(s);
2. All records evidencing compliance with the environmental protection measures pursuant to sections 8304, 8305, 8306, and 8307 of this chapter;
3. All supporting documentation for data or information entered into the track-and-trace system;
4. All UIDs assigned to product in inventory and all unassigned UIDs. UIDs associated with product that has been retired from the track-and-trace system must be retained for six (6) months after the date the tags were retired;
5. Financial records related to the licensed commercial cannabis activity, including but not limited to, bank statements, tax records, contracts, purchase orders, sales invoices, and sales receipts;
6. Personnel records, including each employee’s full name, social security number or individual tax payer identification number, date of beginning employment, and, if applicable, date of termination of employment;
7. Records related to employee training for the track-and-trace system or other requirements of this chapter. Records shall include, but are not limited to, the date(s) training occurred, description of the training provided, and the names of the employees that received the training;
8. Contracts with other state licensed cannabis businesses;

9. All permits, licenses, and other authorizations to conduct the licensee's commercial cannabis activity;
10. Records associated with composting or disposal of cannabis waste;
11. Documentation associated with loss of access to the track-and-trace system prepared pursuant to CDFA section 8402(d).

CULTIVATOR understands that, per CDFA, all required records shall be prepared and retained in accordance with the following conditions:

1. Records shall be legible; and
2. Records shall be stored in a secured area where the records are protected from debris, moisture, contamination, hazardous waste, fire, and theft.

CULTIVATOR agrees, per CDFA, to prepare a sales invoice or receipt for every sale or transfer of cannabis or non manufactured cannabis product to another licensee. Sales invoices and receipts may be retained electronically but must be readily accessible for examination by the department, other state licensing authorities, any state or local law enforcement authority, and the California Department of Tax and Fee Administration. Each sales invoice or receipt shall include all of the following:

1. Name, business address, and department or other licensing authority issued license number of the seller;
2. Name, business address, and department or other licensing authority issued license number of the purchaser;
3. Date of sale or transfer (month, day, and year). The date of any sale or transfer of cannabis and non manufactured cannabis products shall be the date of transfer to the licensee receiving it;
4. Invoice or receipt number;
5. Weight or quantity of cannabis and non manufactured cannabis products sold or transferred;
    a. Weight. For the purposes of this section a licensee must use wet weight or net weight. Wet weight and net weight shall be determined following weighing device requirements pursuant to section 8213 of this chapter and measured, recorded, and reported in U.S. customary units (e.g., ounce or pound) or International System of Units (e.g., kilograms, grams, or milligrams).
    b. Count. For the purposes of this section, "count" means the numerical count of the individual plants or units.
6. Cost to the purchaser, including any discount applied to the total price, shall be recorded on the invoice;
7. Description for each item, including strain or cultivar, and all the applicable information below:
    a. Plant;

    b. Flower;
    c. Leaf;
    d. Shake;
    e. Kief; and
    f. Pre-rolls.
8. Signature of the seller, or designated representative of the seller, acknowledging accuracy of the cannabis and non manufactured cannabis products being shipped;
9. Signature of the purchaser, or designated representative of the purchaser, acknowledging receipt or rejection of the cannabis or non manufactured cannabis products.

Responsibilities

It is the responsibility of JSJ Enterprises, as a licensed cultivator, to follow all of the policies and procedures laid out in this summary. CEO, Jason Kipperman, is ultimately responsible for ensuring that all policies and procedures are followed.

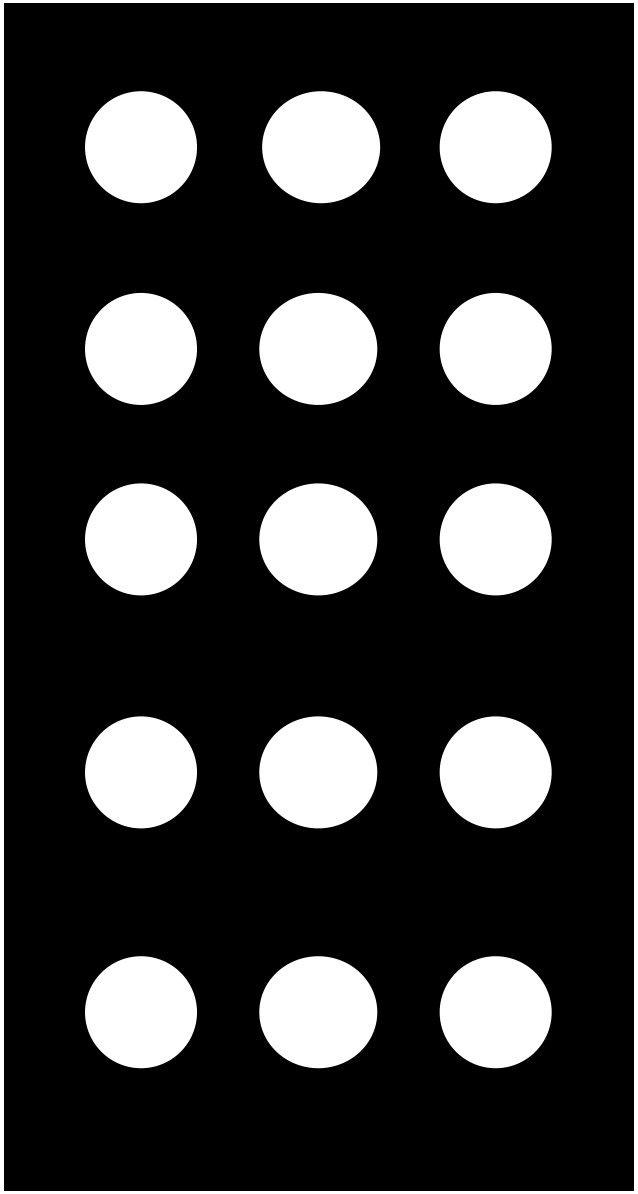
JSJ Proposed Lighting Plan
El Dorado County

Greenhouse climate:
We will be utilizing a ridge vent and wet wall plus biotherm solution in-bench heating to reduce energy usage.

8 Exhaust fan: Schafer 54in 2 Hp
Carbon scrubbers/FogCo odor mitigation
4 Heating: Modine PTP 250k BTU
4 Dehumidifier: quest dual 150
16 Schafer versa Kool 20 in fans
8 Mulitfan VAF fans
Goulds water pumps 2HP booster
Generator: Kohler 50k kw back up only
Tractor: John Deere 3 series 25-45Hp
Outdoor lights: Gama sonic 12W solar security With motion detection.

Greenhouses will be on a 12 hrs of light/12 hrs of darkness schedule all year base around sunlight. Lights will only be supplemental to the sun intensity/schedule.

Rosewood Lighting Diagram



Greenhouse Dimensions (30x96) - 2,880 sq ft

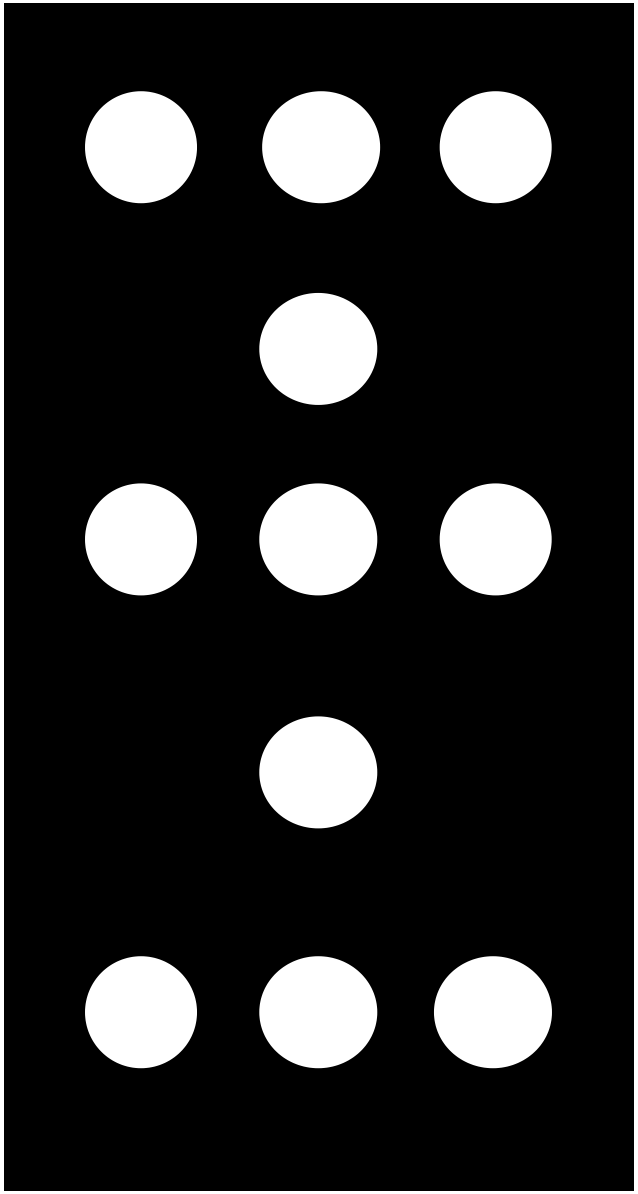
Watts per light = 1,000

Total Watts Per Greenhouse = 15,000

15,000 Total Watts / 2,880 sq ft = >6 Watts per sq ft

Large Greenhouses

Rosewood Lighting Diagram



Greenhouse Dimensions (30x60) - 1,800 sq ft

Watts per light = 1,000

Total Watts Per Greenhouse = 10,800

10,800 Total Watts / 1,800 sq ft = 6 Watts per sq ft

*****Please note that this diagram reflects 11 (1,000 watt) lights as 6 watts per sq ft is actually 10.8 lights allowable.**

Small Greenhouses

JSJ Enterprises
Renewable Energy Plan

Purpose

The purpose of the El Dorado County Renewable Energy Program is to offset the assumed usage of PG&E-derived power.

The El Dorado County Cannabis Ordinance States:

Renewable Energy.
Electrical power for outdoor or mixed-light cultivation operations, including but not limited to illumination, heating, cooling, water supply, and ventilation, shall be provided by on-grid power with a 100 percent renewable source, on-site zero net energy renewable source, or with the purchase of carbon offsets of any portion of power not from renewable sources. Generators may be used as a secondary backup power source pursuant to a valid permit from the El Dorado County Air Quality Management District. Impacts from generator use will also be considered in the environmental analysis and site-specific restrictions and conditions may be imposed to mitigate those impacts, including conditions to minimize noise.

Plan

JSJ Enterprises has chosen to enroll in the “Solar Choice” program through PG&E. Through the Solar Choice program “You can elect to purchase solar energy to match either 50% or 100% of your energy use.”

According to the PG&E website “Nonresidential capacity in the program is full and customers are being waitlisted for future enrollment if capacity becomes available.”

Once the Conditional Use Permit has been issued and JSJ Enterprises enters into the buildout phase of this project, we will seek a commercial account through PG&E. At that time, we will also enroll in the Solar Choice program and we expect to be placed on the waitlist for future enrollment once capacity becomes available.

Conclusion

JSJ Enterprises understands and applauds the efforts that El Dorado County is making towards a more sustainable world. We have no issue with adhering to compliance with this portion of the Commercial Cannabis Ordinance. However, we believe that the time for enrollment in the Solar Choice program is after the Conditional Use Permit process has been completed and the construction phase of the project has begun.

Appendix D

Biological Resources Assessment

BIOLOGICAL RESOURCES ASSESSMENT FOR THE CANNABIS CULTIVATION OPERATION AT 3331 ROSEWOOD LANE, SOMERSET, CALIFORNIA

June 8, 2020

Applicant:

Jason Kipperman
3331 Rosewood Lane, Somerset, CA 95684

Prepared by:

G.O. Graening, PhD and Tim Nosal, MS
Natural Investigations Company, Inc.
3104 O Street, #221, Sacramento, CA 95816

NATURAL INVESTIGATIONS CO.
WWW.NATURALINVESTIGATIONS.COM

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1. INTRODUCTION

1.1. PROJECT LOCATION AND DESCRIPTION

Natural Investigations Company conducted a biological resources assessment for a cannabis cultivation operation on a 20-acre property at 3331 Rosewood Lane, Somerset, California. The property consists of 2 parcels: APN 095-130-51-100 and 095-130-54-100. The proposed project is a mixed-light cannabis cultivation operation with 10,000 square feet of canopy (the maximum allowed currently by the County). A fenced cultivation compound, approximately 0.4 acre in size, will be established to the southwest of the residence. Some grading will be necessary to establish the compound; some trees will need to be removed, and an arborist will be consulted for this process. Hoophouses will be used to control photoperiod; the typical size of each hoophouse is 25 feet by 80 feet. Permanent greenhouse structures may be built some time in the future. Plants will be grown in fabric and/or plastic pots. Water from existing well east of the garden will be used for irrigation. Tanks will be installed to store 5,000 gallons of water. A 1,000 or 2,000-gallon mixing tank will be used to deliver nutrients to plants; drip irrigation will be employed. An existing barn will be used for product processing and storage of chemicals. In the future, the barn will be removed and a processing building constructed (approximately 3,000 to 4,000 square feet). Driveway improvements to the cultivation area may be required in order to provide suitable access for emergency vehicles per County ordinance. Previous cannabis gardens, including the hoophouses behind the residence, will be removed/abandoned. The existing residence, garage, and shed will not be used for this cannabis operation

For this assessment, the Project Area was defined as the cultivation area plus the ancillary facilities, and this 0.5-acre area was the subject of the impact analysis. The entire 20-acre property was defined as the Study Area. The Study Area is defined to identify biological resources adjacent to the Project Area, and is the area subject to potential indirect effects from Project implementation.

1.2. PURPOSE AND SCOPE OF ASSESSMENT

This Biological Resources Assessment was prepared to assist in compliance with the California Environmental Quality Act and the state and federal Endangered Species Acts. This assessment also functions to fulfill requirements for obtaining enrollment (a Notice of Applicability) in the State Water Resources Control Board's Order WQ 2019-0007-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order).

This assessment provides information about the biological resources within the Study Area, the regulatory environment affecting such resources, any potential Project-related impacts upon these resources, and finally, to identify mitigation measures and other recommendations to reduce the significance of these impacts. The specific scope of services performed for this assessment consisted of the following tasks:

- Compile all readily-available historical biological resource information about the Study Area;
- Spatially query state and federal databases for any occurrences of special-status species or habitats within the Study Area and vicinity;
- Perform a reconnaissance-level field survey of the Study Area, including photographic documentation;
- Inventory all flora and fauna observed during the field survey;
- Characterize and map the habitat types present within the Study Area, including any potentially-jurisdictional water resources;
- Evaluate the likelihood for the occurrence of any special-status species;
- Assess the potential for the Project to adversely impact any sensitive biological resources;

- Recommend mitigation measures designed to avoid or minimize Project-related impacts; and
- Prepare and submit a report summarizing all of the above tasks.

The scope of services does not include other services that are not described in this Section, such as formal aquatic resource delineations or protocol-level surveys for special-status species.

1.3. REGULATORY SETTING

The following section summarizes some applicable regulations of biological resources on real property in California.

1.3.1. Special-status Species Regulations

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service implement the Federal Endangered Species Act of 1973 (FESA) (16 USC §1531 et seq.). Threatened and endangered species on the federal list (50 CFR §17.11, 17.12) are protected from "take" (direct or indirect harm), unless a FESA Section 10 Permit is granted or a FESA Section 7 Biological Opinion with incidental take provisions is rendered. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the project area and determine whether the proposed project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC §1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant and would require mitigation. Species that are candidates for listing are not protected under FESA; however, USFWS advises that a candidate species could be elevated to listed status at any time, and therefore, applicants should regard these species with special consideration.

The California Endangered Species Act of 1970 (CESA) (California Fish and Game Code §2050 *et seq*., and CCR Title 14, §670.2, 670.51) prohibits "take" (defined as hunt, pursue, catch, capture, or kill) of species listed under CESA. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Section 2081 establishes an incidental take permit program for state-listed species. Under CESA, California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of threatened and endangered species designated under state law (CFG Code 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to requirements of CESA, an agency reviewing proposed projects within its jurisdiction must determine whether any state-listed species may be present in the Study Area and determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation.

California Fish and Game Code Sections 4700, 5050, and 5515 designates certain mammal, amphibian, and reptile species "fully protected", making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The California Native Plant Protection Act of 1977 (CFG Code §1900 *et seq*.) requires CDFW to establish criteria for determining if a species or variety of native plant is endangered or rare. Section 19131 of the code requires that landowners notify CDFW at least 10 days prior to initiating activities that will destroy a listed plant to allow the salvage of plant material.

Many bird species, especially those that are breeding, migratory, or of limited distribution, are protected under federal and state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbances must be reduced or eliminated during

the nesting cycle. California Fish and Game Code (§3503, 3503.5, and 3800) prohibits the possession, incidental take, or needless destruction of any bird nests or eggs. Fish and Game Code §3511 designates certain bird species "fully protected", making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The Bald and Golden Eagle Protection Act (16 USC §668) specifically protects bald and golden eagles from harm or trade in parts of these species.

California Environmental Quality Act (CEQA) (Public Resources Code §15380) defines "rare" in a broader sense than the definitions of threatened, endangered, or fully protected. Under the CEQA definition, CDFW can request additional consideration of species not otherwise protected. CEQA requires that the impacts of a project upon environmental resources must be analyzed and assessed using criteria determined by the lead agency. Sensitive species that would qualify for listing but are not currently listed may be afforded protection under CEQA. The CEQA Guidelines (§15065) require that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines (§15380) provide for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Plant species on the California Native Plant Society (CNPS) Lists 1A, 1B, or 2 are typically considered rare under CEQA. California "Species of Special Concern" is a category conferred by CDFW on those species that are indicators of regional habitat changes or are considered potential future protected species. While they do not have statutory protection, Species of Special Concern are typically considered rare under CEQA and thereby warrant specific protection measures.

1.3.2. Water Resource Protection

Real property that contains water resources are subject to various federal and state regulations and activities occurring in these water resources may require permits, licenses, variances, or similar authorization from federal, state and local agencies, as described next.

The Federal Water Pollution Control Act Amendments of 1972 (as amended), commonly known as the Clean Water Act (CWA), established the basic structure for regulating discharges of pollutants into "waters of the United States". Waters of the US includes essentially all surface waters, all interstate waters and their tributaries, all impoundments of these waters, and all wetlands adjacent to these waters. CWA Section 404 requires approval prior to dredging or discharging fill material into any waters of the US, especially wetlands. The permitting program is designed to minimize impacts to waters of the US, and when impacts cannot be avoided, requires compensatory mitigation. The US Army Corps of Engineers (USACE) is responsible for administering Section 404 regulations. Substantial impacts to jurisdictional wetlands may require an Individual Permit. Small-scale projects may require only a Nationwide Permit, which typically has an expedited process compared to the Individual Permit process. Mitigation of wetland impacts is required as a condition of the CWA Section 404 Permit and may include on-site preservation, restoration, or enhancement and/or off-site restoration or enhancement. The characteristics of the restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

Under CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity will comply with State water quality standards. The California State Water Resources Control Board is responsible for administering CWA Section 401 regulations.

Section 10 of the Rivers and Harbors Act of 1899 requires approval from USACE prior to the commencement of any work in or over navigable Waters of the US, or which affects the course, location, condition or capacity of such waters. Navigable waters of the United States are defined as waters that have been used in the past, are now used, or are susceptible to use, as a means to transport interstate or foreign commerce up to the head of navigation. Rivers and Harbors Act Section 10 permits are required for construction activities in these waters.

California Fish and Game Code (§1601 - 1607) protects fishery resources by regulating "*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake*." CDFW requires notification prior to commencement, and issuance of a Lake or Streambed Alteration Agreement, if a proposed project will result in the alteration or degradation of ''waters of the State". The limit of CDFW jurisdiction is subject to the judgment of the Department; currently, this jurisdiction is interpreted to be the "stream zone", defined as "*that portion of the stream channel that restricts lateral movement of water*" and delineated at "*the top of the bank or the outer edge of any riparian vegetation, whichever is more landward*". CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Streambed Alteration Agreement. Projects that require a Streambed Alteration Agreement may also require a CWA 404 Section Permit and/or CWA Section 401 Water Quality Certification.

For construction projects that disturb one or more acres of soil, the landowner or developer must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

The State Water Resources Control Board's Order WQ 2019-0007-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities protects receiving water bodies from water-quality impacts associated with cannabis cultivation using a combination of Best Management Practices, buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight.

1.3.3. Tree Protection

At the State level, in areas inside timberland, any tree removal is subject to the conditions and requirements set forth in the Z'berg-Nejedly Forest Practice Act and the California Forest Practice Rules. If development of a project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

El Dorado County's Oak Conservation Ordinance Number 5061 requires the inventory of oak resources and the mitigation for the removal of oak resources. Oak Resources consist of oak woodlands, individual native oak trees, and heritage trees. If Oak Resources are to be removed, an Oak Tree or Oak Woodland Removal Permit is required. This requires preparation of an Oak Resources Technical Report and a code compliance certificate verifying that no protected oak trees have been impacted within two years prior to the permit application. Mitigation is required for impacts to oak woodland as well as to individual trees.

2. ENVIRONMENTAL SETTING

The Study Area is located within the cis-montane Sierra Nevada mountains geographic subregion, which is contained within the Sierra Nevada Mountains geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). The Study Area and vicinity is in Climate Zone 2b "Warmer-Summer Intermountain Climate", characterized by milder summers and longer and colder winters than in the Central Valley (Sunset, 2020). The topography of the Study Area is rolling, and consists of north-facing slopes of Coyote Ridge. The elevation ranges from approximately 2,400 feet to 2,550 feet above mean sea level.

3. METHODOLOGY

3.1. PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Any readily-available previous biological resource studies pertaining to the Study Area or vicinity
- United States Geologic Service (USGS) 7.5 degree-minute topographic quadrangles of the Study Area and vicinity
- Aerial photography of the Study Area
- California Natural Diversity Database (CNDDB), electronically updated monthly by subscription
- USFWS species list (IPaC Trust Resources Report).

3.2. FIELD SURVEY

Consulting biologist Tim Nosal, MS. or Dr. Geo Graening conducted a reconnaissance-level field survey on April 20, 2020. Weather conditions were overcast and cool (50s F) with very little breeze. A complete coverage, variable-intensity pedestrian survey was performed, and modified to account for differences in terrain, vegetation density, and visibility. All visible fauna and flora observed were recorded in a field notebook, and identified to the lowest possible taxon. Survey efforts emphasized the search for any special-status species that had documented occurrences in the CNDDB within the vicinity of the Study Area and those species on the USFWS species list (Appendix 1).

When a specimen could not be identified in the field, a photograph or voucher specimen (depending upon permit requirements) was taken and identified in the laboratory using a dissecting scope where necessary. Dr. Graening holds the following scientific collection permits: CDFW Scientific Collecting Permit No. SC-006802; and CDFW Plant Voucher Specimen Permit 09004. Tim Nosal holds CDFW Plant Voucher Specimen Permit 2081(a)-16-102-V. Taxonomic determinations were facilitated by referencing museum specimens or by various texts, including the following: Powell and Hogue (1979); Pavlik (1991); (1993); Brenzel (2012); Stuart and Sawyer (2001); Lanner (2002); Sibley (2003); Baldwin et al. (2012); Calflora (2020); CDFW (2020b,c); NatureServe 2020; and University of California at Berkeley (2020a,b).

The locations of any special-status species sighted were marked on aerial photographs and/or georeferenced with a geographic positioning system (GPS) receiver. Habitat types occurring in the Study Area were mapped on aerial photographs, and information on habitat conditions and the suitability of the habitats to support special-status species was also recorded. The Study Area was also informally assessed for the presence of potentially-jurisdictional water features, including riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats

3.3. MAPPING AND OTHER ANALYSES

Locations of species' occurrences and habitat boundaries within the Study Area were digitized to produce the final habitat maps. The boundaries of potentially jurisdictional water resources within the Study Area were identified and measured in the field, and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities (assemblages of plant species growing in an area of similar biological and environmental factors), were classified by Vegetation Series (distinctive associations of plants, described by dominant species and particular environmental setting) using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 1995). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the US Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFW's California Wildlife Habitat Relationships System (CDFW, 2020c). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2020), Calflora (2020); CDFW (2020a,b,c); and University of California at Berkeley (2020a,b).

4. RESULTS

4.1. INVENTORY OF FLORA AND FAUNA FROM FIELD SURVEY

All plants detected during the field survey of the Study Area are listed in Appendix 2. The following animals were detected within the Study Area during the field survey:

northern Pacific treefrog (*Pseudacris regilla*); Botta's pocket gopher (*Thomomys bottae*); Columbian black-tailed deer (*Odocoileus hemionus columbianus*); coyote (*Canis latrans*); dog (*Canis lupis familiaris*); gray fox (*Urocyon cinereoargenteus*); sheep (*Orvis aries*); acorn woodpecker (*Melanerpes formicivorus*); American robin (*Turdus migratorius*); Anna's hummingbird (*Calypte anna*); Canada goose (*Branta canadensis*); cedar waxwing (*Bombycilla cedrorum*); chicken (*Gallus gallus domesticus*); mourning dove (*Zenaida macroura*); Nuttall's woodpecker (*Picoides nuttallii*); sparrow (Emberizidae); spotted towhee (*Pipilo maculatus*); wild turkey (*Meleagris gallopavo*); and common songbirds.

4.2. VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES

4.2.1. Terrestrial Vegetation Communities

The Study Area contains the following terrestrial vegetation communities: Ruderal, Annual Grassland and Mixed Pine-Oak Woodland. These vegetation communities are discussed here and are delineated in the Exhibits.

Ruderal/Disturbed. These areas consist of disturbed or converted natural habitat that is now either in ruderal state, graded, or urbanized with gravel roads. Vegetation within this habitat type consists primarily of nonnative weedy or invasive species lacking a consistent community structure. This habitat type provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages.

Annual Grassland: Several areas across the Study Area are largely devoid of trees and are characterized by annual grassland habitat. This vegetation is comprised mostly of non-native grasses and native and non-native herbs including wall barley (*Hordeum murinum*), slender wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), hedgehog dogtail grass (*Cynosurus echinoides*), filaree (*Erodium* spp.), cat's-ear (*Hypochaeris* spp.), Italian thistle (*Carduus pycnocephalus*) and white clover (*Trifolium repens*). This vegetation can be classified as the Holland Type "Non-native Grassland," and "42.027.00 Wild Oats and Annual Brome Grasslands" (CDFW 2019).

Mixed Pine-Oak Woodland: Tree dominated habitats that are found throughout the Study Area are characterized by various species of pine and oak. The composition of the pine-oak forest varies across the Study Area, depending upon aspect, slope, soil and site history. Dominant canopy species include ponderosa pine (*Pinus ponderosa*), California black oak (*Quercus kelloggii*), interior live oak (*Quercus wislizeni*), canyon live oak (*Quercus chrysolepis*) and gray pine (*Pinus sabiniana*). The shrub layer within this habitat is comprised of white-leaf manzanita (*Arctostaphylos viscida*), toyon (*Heteromeles arbutifolia*) and poison oak (*Toxicodendron diversilobum*). Typical plants within the herb layer of this habitat include hedgehog dogtail grass, yarrow (*Achillea millefolium*), nit grass (*Gastridium phleoides*) and winter vetch (*Vicia villosa*). This vegetation can be classified as the Holland Type "Westside Ponderosa Pine Forest" or as

"87.010.00 Ponderosa Pine Forest" (CDFW 2019).

4.2.2. Wildlife Habitat Types

Wildlife habitat types were classified using CDFW's Wildlife Habitat Relationship System. The Study Area contains the following wildlife habitat types: Montane Hardwood-Conifer; Blue Oak Woodland; Annual Grassland; Pasture; Urban; and Barren.

4.2.3. Critical Habitat and Special-status Habitat

No critical habitat for any federally-listed species occurs within the Project Area or the surrounding Study Area.

The CNDDB reported no special-status habitats within the Project Area or surrounding Study Area. The CNDDB reported the following special-status habitats in a 10-mile radius outside of the Study Area: Sacramento-San Joaquin Foothill/Valley Ephemeral Stream; Central Valley Drainage Resident Rainbow Trout Stream and Central Valley Drainage Hardhead/Squawfish Stream.

No special-status habitats were detected within the Project Area or surrounding Study Area during the field survey other than aquatic habitats: several channels and the pond.

4.2.4. Habitat Plans and Wildlife Corridors

Wildlife movement corridors link remaining areas of functional wildlife habitat that are separated primarily by human disturbance, but natural barriers such as rugged terrain and abrupt changes in vegetation cover are also possible. Wilderness and open lands have been fragmented by urbanization, which can disrupt migratory species and separate interbreeding populations. Corridors allow migratory movements and act as links between these separated populations.

No fishery resources exist in or near the Study Area. The Study Area is mapped as part of an "Essential Connectivity Areas - California Essential Habitat Connectivity" area. The open space within the Study Area allows animal movement. The Study Area is not located within any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

4.3. LISTED SPECIES AND OTHER SPECIAL-STATUS SPECIES

For the purposes of this assessment, "special status" is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered in California by the California Native Plant Society (CNPS); this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

4.3.1. Reported Occurrences of Listed Species and Other Special-status Species

A list of special-status plant and animal species that have occurred within the Study Area and vicinity was compiled based upon the following:

- Any previous and readily-available biological resource studies pertaining to the Study Area;

- Informal consultation with USFWS by generating an electronic Species List (Information for Planning and Conservation website at https://ecos.fws.gov/ipac/); and
- A spatial query of the CNDDB.

The CNDDB was queried and any reported occurrences of special-status species were plotted in relation to the Study Area boundary using GIS software (see exhibits).

The CNDDB reported 1 special-status species occurrence in the vicinity of the Study Area: Great gray owl (*Strix nebulosa*). Three occurrences for this species are reported from the vicinity:

- *Riparian oak savannah. Nest was in a broken branch on a valley oak tree.*
- *Sierra mixed conifer with lavacap/meadow 0.3 mi south. Nest was in a black oak snag.*
- *Pine & oak savannah. Riparian. Past history of forest management. Nest tree is on a black oak snag.*

However, exact occurrence records have been suppressed by CNDDB due to concerns of disturbance from an individual who brings birding groups to the nest sites. Within a 10-mile buffer of the Study Area boundary, the CNDDB reported several special-status species occurrences, summarized in the following table.

A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System (see Appendix 1). This list is generated using a regional and/or watershed approach and does not necessarily indicate that the Study Area provides suitable habitat. The following listed species should be considered in the impact assessment: California Red-legged Frog (*Rana draytonii*) Threatened. and Delta Smelt (*Hypomesus transpacificus*) Threatened. Migratory birds should also be considered in the impact assessment.

Special-status Species Reported by CNDDB in the Vicinity of the Study Area

Common Name Scientific Name	Status*	General Habitat	Microhabitat
California red-legged frog *Rana draytonii*	FT/CSSC	Lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.
Foothill yellow-legged frog *Rana boylii*	CCT/CSSC	Partly-shaded, shallow streams & riffles with a rocky substrate in a variety of habitats.	Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
Northern goshawk *Accipiter gentilis*	CSSC	Within, and in vicinity of, coniferous forest. Uses old nests, and maintains alternate sites.	Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.
Great gray owl *Strix nebulosa*	CE	Resident of mixed conifer or red fir forest habitat, in or on edge of meadows.	Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.
Bank swallow *Riparia riparia*	CT	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.
Long-legged myotis *Myotis volans*	CSSC	Most common in woodland & forest habitats above 4000 ft. Trees are important day roosts; caves & mines are night roosts.	Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.
Townsend's big-eared bat *Corynorhinus townsendii*	CSSC	Throughout California in a wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls & ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
Fisher - West Coast DPS *Pekania pennanti*	CT/CSSC	Intermediate to large-tree stages of coniferous forests & deciduous-riparian areas with high percent canopy closure.	Uses cavities, snags, logs & rocky areas for cover & denning. Needs large areas of mature, dense forest.
Western pond turtle *Emys marmorata*	CSSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, be	Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying
Grady's Cave amphipod *Stygobromus gradyi*	CSSC	Known only from central California.	Known only from springs and caves in the Mother Lode karst region.
Tulare cuckoo wasp *Chrysis tularensis*	CSSC	Foothills of the San Joaquin Valley	
Cosumnes stripetail *Cosumnoperla hypocrena*	CSSC	Found in intermittent streams on western slope of central Sierra Nevada foothills in American & Cosumnes River basins.	
Grubbs' cave harvestman *Banksula grubbsi*	CSSC	Known only from the type locality, Black Chasm Cave, Volcano, Amador County.	Species is troglobitic.
Nissenan manzanita *Arctostaphylos nissenana*	1B.2	Closed-cone coniferous forest, chaparral.	Usually on metamorphics, associated w/ other chaparral species. 450-1100 m.
Brandegee's clarkia *Clarkia biloba ssp. brandegeeae*	4.2	Chaparral, cismontane woodland, lower montane coniferous forest.	Often in roadcuts. 75-915 m.
Parry's horkelia *Horkelia parryi*	1B.2	Chaparral, cismontane woodland.	Openings in chaparral or woodland; especially known from the Ione formation in Amador County. 80-1070 m..
Pleasant Valley mariposa-lily *Calochortus clavatus var. avius*	1B.2	Lower montane coniferous forest.	Josephine silt loam and volcanically derived soil; often in rocky areas. 305-1700 m.

Red Hills soaproot *Chlorogalum grandiflorum*	1B.2	Cismontane woodland, chaparral, lower montane coniferous forest.	Occurs frequently on serpentine or gabbro, but also on non-ultramafic substrates; often on "historically disturbed" site

*Definitions of Status Codes: FE = Federally listed as endangered; FT = Federally listed as threatened; FPE = Federally proposed for listing as endangered; FPT = Federally proposed for listing as threatened; FC = Candidate for Federal listing; MB = Migratory Bird Act; CE = California State listed as endangered; CT = California State listed as threatened; CSSC = California species of special concern; CR = California rare species; CFP = California fully protected species; CNPS (California Native Plant Society) List 1A = Plants presumed extinct in California by CNPS; CNPS List 1B = CNPS designated rare or endangered plants in California and elsewhere; and CNPS List 2 = CNPS designated rare or endangered plants in California, but more common elsewhere. Global Ranking: G1 = Critically Imperiled; G2 = Imperiled; G3 = Vulnerable. State Ranking: S1 = Critically Imperiled; S2 = Imperiled; S3 = Vulnerable.
**Copied verbatim from CNDDB, unless otherwise noted.

4.3.2. Listed Species or Special-status Species Observed During Field Survey

During the field survey, no special-status species were detected within the Project Area or the surrounding Study Area.

4.3.3. Potential for Listed Species or Special-status Species to Occur in the Study Area

Suitable habitat for special-status plant species known to occur within 10 miles of the project area is not present within the Study Area. The proposed project will be situated on areas that have habitats that are urbanized or consist of non-native annual grassland. The non-native grasslands within the Study Area have a low potential for harboring special-status plant species due to the dominance of aggressive non-native grasses and forbs. Areas near water resources, such as watercourses and ponds, serve as a focus area for wildlife and could sustain aquatic special-status species, especially in intermittent channels.

4.4. POTENTIALLY-JURISDICTIONAL WATER RESOURCES

The USFWS National Wetland Inventory reported no water features within the Project Area or the surrounding Study Area (see Exhibits).

An informal assessment for the presence of potentially-jurisdictional water resources within the Study Area was also conducted during the field survey. For purposes of this biological site assessment, non-wetland waters were classified using the California Forest Practice Rules. The California Forest Practice Rules define a Class I watercourse as 1) a watercourse providing habitat for fish always or seasonally, and/or 2) providing a domestic water source; a Class II watercourse is 1) a watercourse capable of supporting non-fish aquatic species, or 2) a watercourse within 1000 feet of a watercourse that seasonally or always has fish present; a Class III watercourse is a watercourse with no aquatic life present and that shows evidence of being capable of transporting sediment to Class I and Class II waters during high water flow conditions.

The field survey determined that the Project Area does not contain any channels or wetlands. The following water features were detected within the larger Study Area during the field survey (see Exhibits):

- one unnamed intermittent channel (Class II watercourse), mapped as 3 segments
- one unnamed ephemeral channel (Class III watercourse)
- 1 pond.

There are no vernal pools or other isolated wetlands in the Study Area.

5. IMPACT ANALYSES AND MITIGATION MEASURES

This section establishes the impact criteria, then analyzes potential Project-related impacts upon the known biological resources within the Study Area, and then suggests mitigation measures to reduce these impacts to a less-than-significant level.

5.1. IMPACT SIGNIFICANCE CRITERIA

The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. As defined by CEQA, the Project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
- Conflict with any county or municipal policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved governmental habitat conservation plan.

5.2. IMPACT ANALYSIS

The following discussion evaluates the potential for Project-related activities to adversely affect biological resources. The Project boundaries were digitized and then overlaid on the habitat map using GIS to quantify potential impacts. Historical aerial photos were also analyzed for changes in land use.

5.2.1. Potential Direct / Indirect Adverse Effects Upon Special-status Species

- *Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Suitable habitat for special-status plant species known to occur within 10 miles of the project area is not present within the Study Area. Therefore, a botanical survey is not considered to be necessary.

The proposed project will be situated on areas that have habitats that are urbanized or consist of non-native annual grassland. The non-native grasslands within the Study Area have a low potential for harboring special-status plant species due to the dominance of aggressive non-native grasses and forbs. Areas near water resources, such as watercourses and ponds, serve as a focus area for wildlife and could sustain aquatic special-status species, especially in intermittent channels. However, the

project area was designed with sufficient setbacks from water resources (100 to 150 feet) to eliminate direct impacts to channels or wetlands. No impacts to special-status species were identified from project implementation. If land clearing is performed in the future in the oak woodland habitat, a pre-construction special-status species survey is recommended.

The Study Area contains suitable nesting habitat for various bird species because of the presence of trees and poles. However, no nests or nesting activity was observed in the project area during the field survey and no trees need to be felled for project implementation. Trees must be inspected for the presence of active bird nests before tree felling or ground clearing. If active nests are present in the project area during construction of the project, CDFW should be consulted to develop measures to avoid "take" of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. If trees are removed, a nesting bird survey is recommended.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.2. Potential Direct / Indirect Adverse Effects Upon Special-status Habitats or Natural Communities or Corridors

- *Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Study Area is not within any designated listed species' critical habitat. The Project Area does not contain special status habitats. The surrounding Study Area contains special-status habitat: watercourses and a pond. Project implementation will not impact any special-status habitats.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.3. Potential Direct / Indirect Adverse Effects on Jurisdictional Water Resources

- *Will the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

There are no water resources within the Project Area. There are several water resources within the surrounding Study Area: one Class II Watercourse, one Class III Watercourses, and a pond.

Potential direct impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation or the filling of wetlands or channels. However, the cultivation areas have been designed with 100- to 150-foot setbacks from watercourses and situated on

the flattest areas possible. Because of these avoidance measures, no direct impacts to water resources are expected.

Potential indirect impacts to water resources could occur during construction by increased erosion and sedimentation in receiving water bodies due to soil disturbance. If the total area of ground disturbance from installation of the cultivation operation is 1 acre or more, the Cultivator must enroll for coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ). Implementation of a stormwater pollution prevention plan, and erosion control plan, along with regular inspections, will ensure that construction activities do not pollute receiving waterbodies.

Potential adverse impacts to water resources could occur during operation of cultivation activities resources by discharge of sediment or other pollutants (fertilizers, pesticides, human waste, etc.) into receiving waterbodies. However, the project proponent must file a Notice of Intent and enroll in Cannabis Cultivation Order WQ 2019-0007-DWQ. Compliance with this Order will ensure that cultivation operations will not significantly impact water resources by using a combination of Best Management Practices (BMPs), buffer zones, sediment and erosion controls, site management plans, inspections and reporting, and regulatory oversight.

Cultivators who enroll in the State Water Board's Waste Discharge Requirements for Cannabis Cultivation Order WQ 2019-0007-DWQ must comply with the Minimum Riparian Setbacks, as summarized in the following table. The Project would be considered to have a significant adverse impact on jurisdictional water resources if it would be non-compliant with these requirements. The minimum riparian setbacks apply to all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel powered pump locations, water storage areas, and chemical toilet placement).

Minimum Riparian Setbacks

Common Name	Watercourse Class	Distance
Perennial watercourses, waterbodies (e.g. lakes, ponds), or springs	I	150 ft.
Intermittent watercourses or wetlands	II	100 ft.
Ephemeral watercourses	III	50 ft.
Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species	IV	Established riparian zone vegetation

Recommended Mitigation Measures

No impacts were identified, and therefore no mitigation measures are proposed.

It is recommended that a formal delineation of jurisdictional waters be performed before construction work, or ground disturbance, is performed within 50 feet of any wetland or drainage.

5.2.4. Potential Impacts to Wildlife Movement, Corridors, etc.

- *Will the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Although no mapped wildlife corridors (such as the California Essential Habitat Connectivity Area layer in CNDDB) exist within or near the Study Area, the open space and the stream corridors in the Study Area facilitate animal movement and migrations. While the Study Area may be used by wildlife for movement or migration, the Project would not have a significant impact on this movement because it would not block movement and the majority of the open space in the Study Area would still be available.

Implementation of the proposed project would necessitate erection of security fences around the cultivation compounds. These fences do not allow animal movement and may act as a local barrier to wildlife movement. However, the fenced cultivation areas are surrounded by open space, allowing wildlife to move around these fenced areas. Thus, implementation of the proposed project is a less than significant impact upon wildlife movement. Implementation of the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Recommended Mitigation Measures

No mitigation is necessary.

5.2.5. Potential Conflicts with Ordinances, Habitat Conservation Plans, etc.

- *Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Oak trees are protected by El Dorado County's Oak Conservation Ordinance Number 5061. If oak trees need to be removed for project implementation, a permit from the County is need along with an arborist survey and oak protection plan. A permit from CALFIRE is needed for removal of commercial tree species.

The project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved governmental habitat conservation plan. The Study Area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Recommended Mitigation Measures

Mitigation is required for impacts to oak woodland as well as to individual trees.

- Impacts to oak woodlands are typically mitigated through in-lieu fee payment to the County's Oak Woodland Conservation Fund. The per-acre fee is approximately $8,285. Alternative mitigation may be used such as replacement planting or oak woodlands conservation (either on-site or off-site through fee title or conservation easement). Methods of mitigation can also be combined. Mitigation ratios depend on the percentage of woodlands impacted on a development site and range from 1:1 for impacts less than 50 percent and 2:1 for impacts over 75 percent.

- Impacts to individual trees, including Heritage Trees, typically mitigated through in-lieu fee payment to the County's Oak Woodland Conservation Fund. The per inch of trunk diameter (at breast height) fee is approximately $459, with Heritage Trees requiring a 3:1 mitigation ratio. Alternative mitigation such as replacement planting may be identified (either on-site or off-site and protected through deed restriction or conservation easement).

If replacement plantings are used for mitigation, the plantings must follow the guidelines of the County's Oak Resources Management Plan, which specifies the planting ratios according to type (acorn, tree size) and maintenance requirements.

If development of the project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

6. REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition, thoroughly revised and expanded. University of California Press, Berkeley, California. 1,600 pp.

Calflora. 2020. Calflora, the on-line gateway to information about native and introduced wild plants in California. Internet database available at http://calflora.org/.

California Department of Fish and Wildlife. 2019. List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database. Available on the Internet at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

California Department of Fish and Wildlife. 2020a. RareFind, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California. (updated monthly by subscription service)

California Department of Fish and Wildlife, 2020b. California's Plants and Animals. Habitat Conservation Planning Branch, California Department of Fish and Wildlife, Sacramento, California. http://www.dfg.ca.gov/hcpb/species/search_species.shtml.

California Department of Fish and Wildlife. 2020c. California's Wildlife. California Wildlife Habitat Relationships System, Biogeographic Data Branch, California Department of Fish and Wildlife. Internet database available at http://www.dfg.ca.gov/whdab/html/cawildlife.html.

California Native Plant Society. 2020. Inventory of Rare and Endangered Plants. Rare Plant Scientific Advisory Committee, David P. Tibor, convening editor. California Native Plant Society. Sacramento, California. Internet database available at http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi.

Council of Science Editors. 2006. Scientific style and format: the CSE manual for authors, editors, and publishers, 7th edition. Rockefeller University Press, Reston, Virginia. 658 pp.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi. 92 pp.

Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, Nongame Heritage Program, Department of Fish and Wildlife, Sacramento, California. 156 pp.

Lanner, R. M. 2002. Conifers of California. Cachuma Press, Los Olivos, California. 274 pp.

Natural Resources Conservation Service. 2020. Web Soil Survey. National Cooperative Soil Survey, U.S. Department of Agriculture. NRCS Soils Website (Internet database and digital maps) available at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

NatureServe. 2020. NatureServe Explorer: An online encyclopedia of life. NatureServe, Arlington, Virginia. Internet database available at http://www.natureserve.org/explorer.

Pavlik, B. M., P. C. Muick, S. G. Johnson, and M. Popper. 1991. Oaks of California. Cachuma Press and the California Oak Foundation. Los Olivos, California. 184 pp.

Sawyer, J. O., and T. Keeler-Wolf. 1995. A manual of California vegetation. California Native Plant Society, Sacramento, California. Available electronically at http://davisherb.ucdavis.edu/cnpsActiveServer/index.html.

Sibley, D. A. 2003. The Sibley Field Guide to Birds of Western North America. Alfred A. Knopf, Inc., New York, New York.

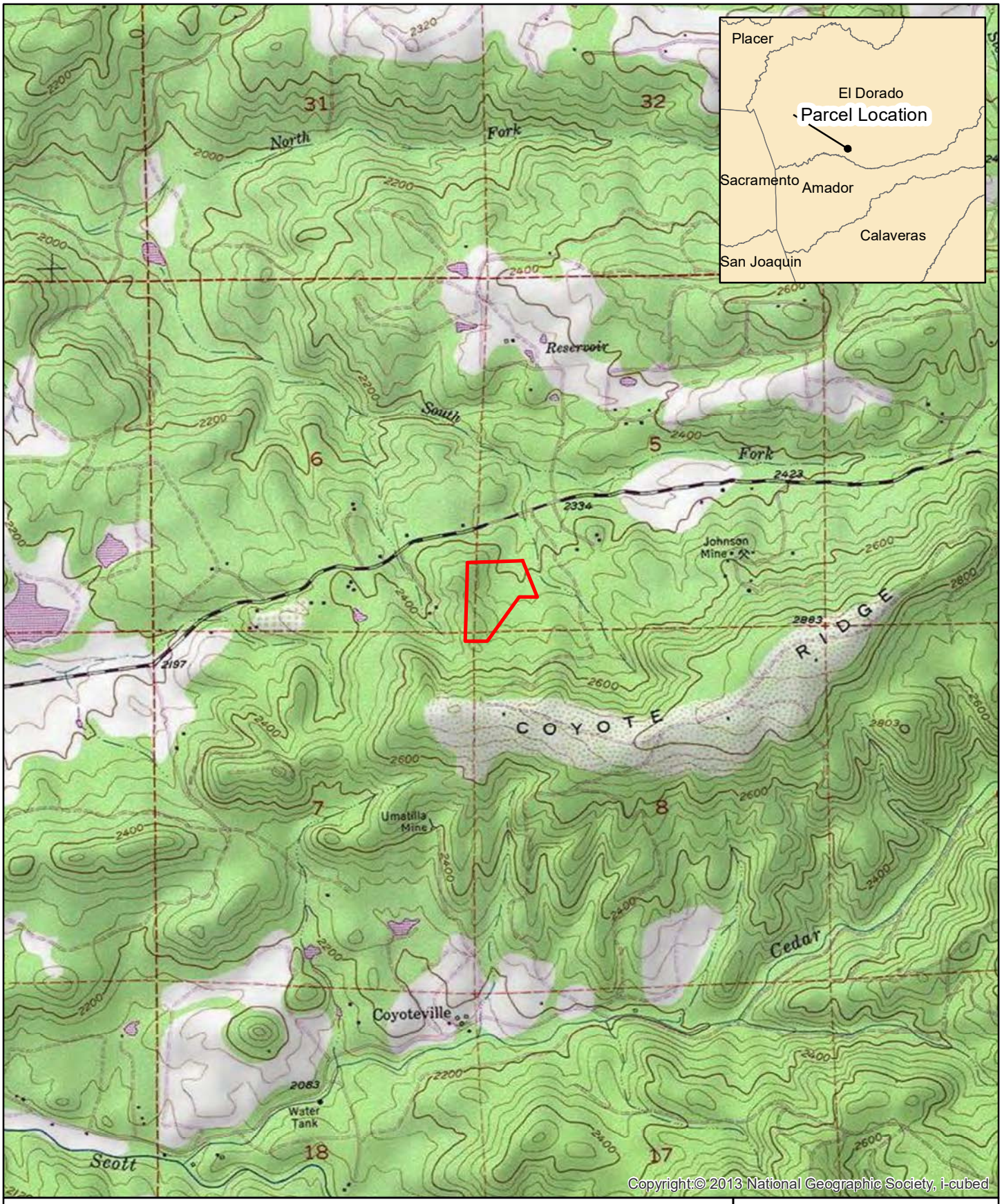
Stuart, J. D., and J. O. Sawyer. 2001. Trees and Shrubs of California. California Natural History Guides. University of California Press, Berkeley, California. 467 pp.

Sunset Western Garden Collection. 2020. Sunset Climate Zones. Sunset Publishing Corporation. Available on the Internet at: https://www.sunsetwesterngardencollection.com/climate-zones.

University of California at Berkeley. 2020a. Jepson Online Interchange for California Floristics. Jepson Flora Project, University Herbarium and Jepson Herbarium, University of California at Berkeley. Internet database available at http://ucjeps.berkeley.edu/interchange.html.

University of California at Berkeley. 2020b. CalPhotos. Biodiversity Sciences Technology Group, University of California at Berkeley. Internet database available at http://calphotos.berkeley.edu/

EXHIBITS



Parcel Location

0 0.5 1 Kilometers

0 0.5 1 Miles

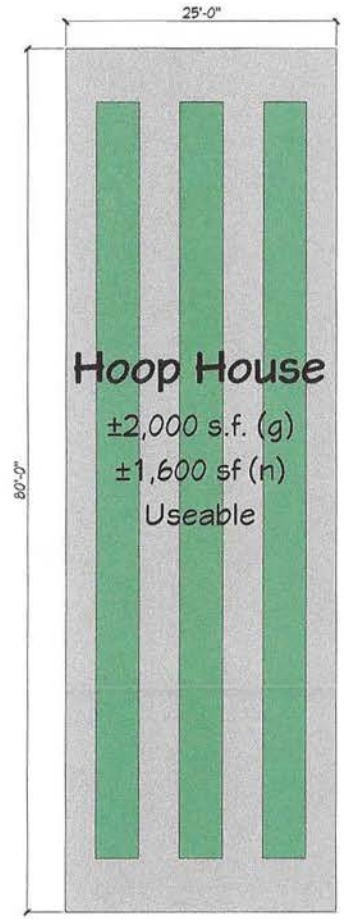
1:24,000

3331 Rosewood Lane
Parcel Location map

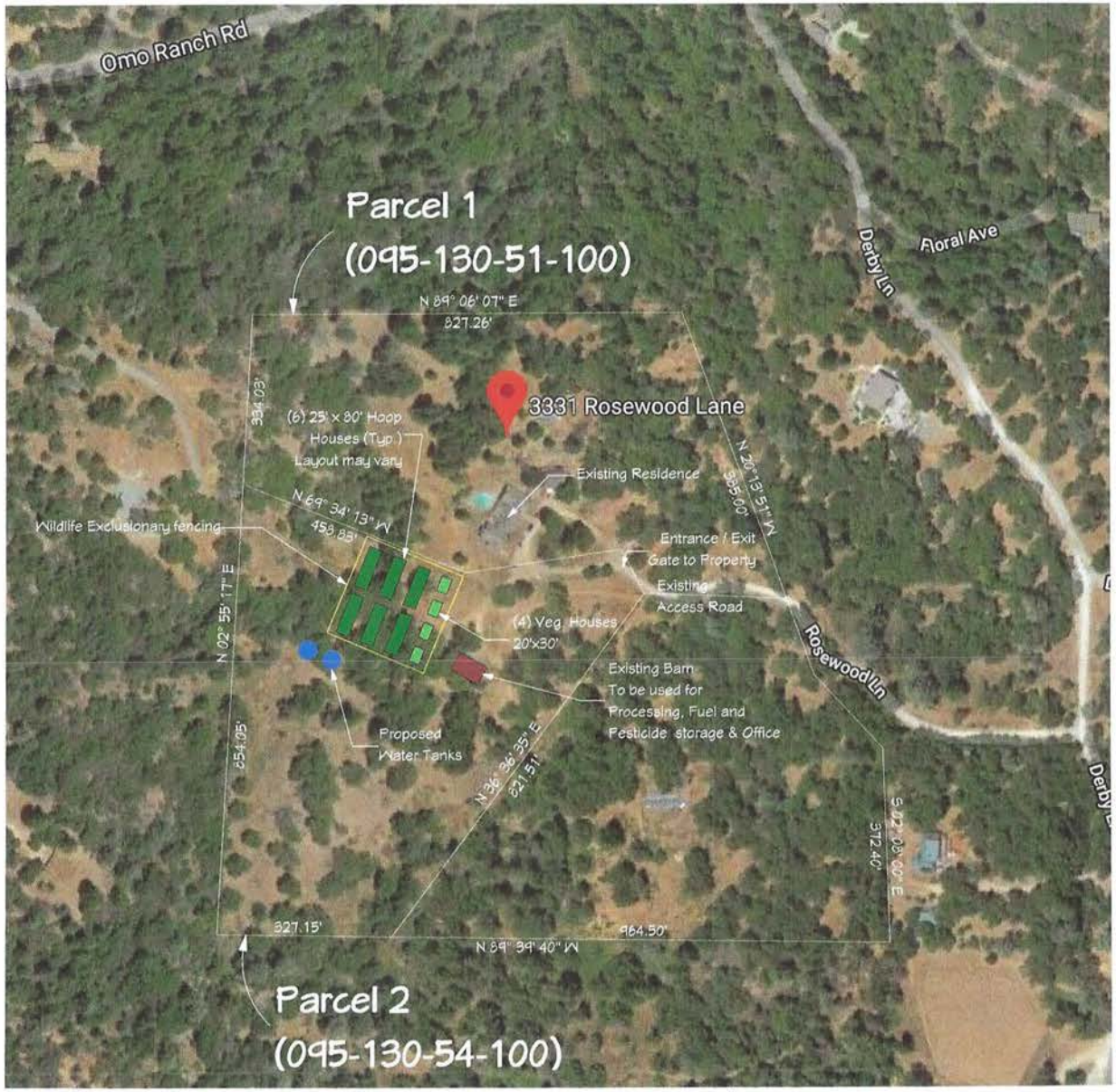
Natural Investigations Company

Map Date 4/9/2020

Aukum 1952 Quadrangle Photorevised 1973:Township 8N, Range 12E, Section 5,6,7,8



TYPICAL HOOP HOUSE
3/16" = 1'-0"



N

OVERALL SITE PLAN
1" = 100'-0"

Jon N. Westphal - Architect
6040 Gold Creek Road
Shingle Springs, California 95682
(530) 677-9540 • jon@iwiarchitect

OVERALL SITE PLAN

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO:
1936Base
DATE:
12/31/2019
SHEET NO:
A-2

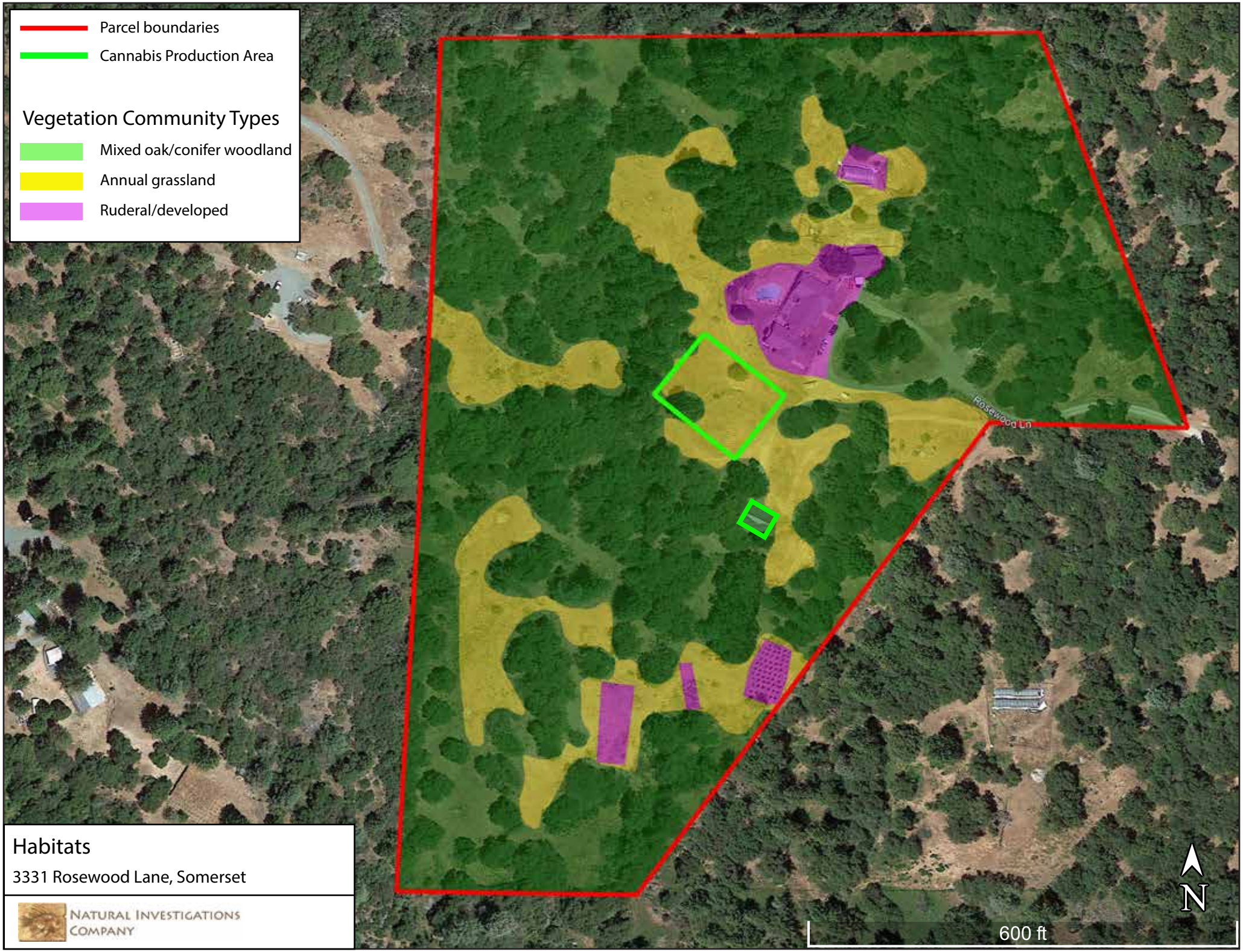
PREMISE PLAN
1" = 50'-0"

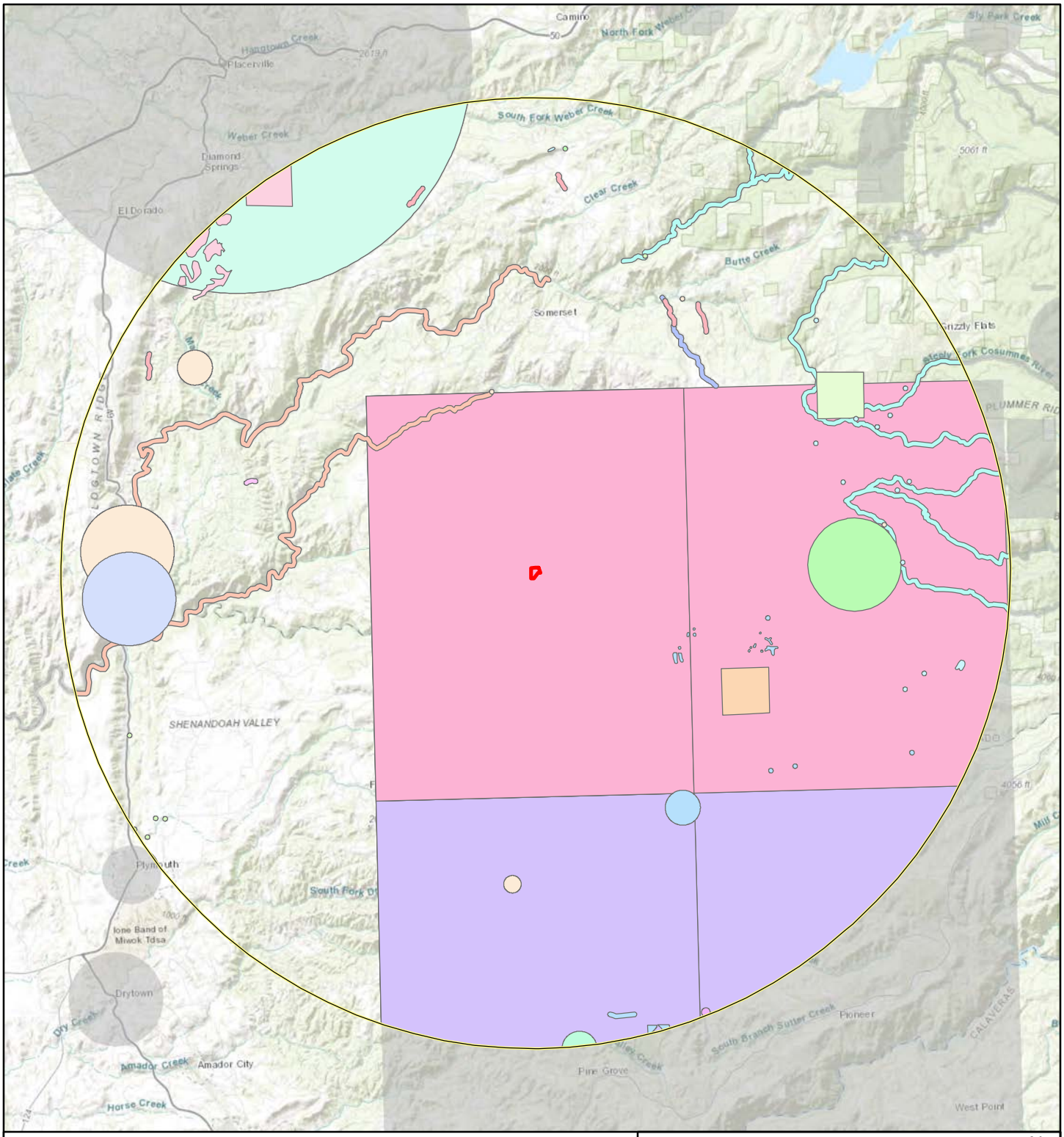
Jon N. Westphal - Architect
6980 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jwarchite

PREMISE PLANS

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO:
1908Base
DATE:
12/31/2019
SHEET NO:
A-3


Parcel boundaries
Cannabis Production Area
Vegetation Community Types
Mixed oak/conifer woodland
Annual grassland
Ruderal/developed
Rosewood Ln
Habitats
3331 Rosewood Lane, Somerset
Natural Investigations Company
N
600 ft



Parcel Location 10 Mile Buffer

1:190,000 1 inch = 3 miles

0 3 6 Miles

N

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist inshowing features discussed in an attached document. Natural Investigations Company can not guarantee the accuracy and content of electronic files.The master file is stored by Natural Investigations Company and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.Data Sources: California Department of Fish and Wildlife. 2020. RareFind 5.x, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California.
(updated monthly by subscription service)

Special-Status Species Occurrences Map

3331 Rosewood Lane

Aukum 1952 Quadrangle Photorevised 1973:
Township 8N, Range 12E, Section 5,6,7,8

NATURAL INVESTIGATIONS CO.
www.NaturalInvestigations.com

Parcel Location

Wetlands and Channels

0 125 250 Meters

0 500 1,000 Feet

1:5,000

3331 Rosewood Lane
National Wetlands Inventory
Features Map

Natural Investigations Company

Map Date 4/9/2020

Aukum 1952 Quadrangle Photorevised 1973:Township 8N, Range 12E, Section 5,6,7,8

APPENDIX 1: USFWS SPECIES LIST

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 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: April 09, 2020
Consultation Code: 08ESMF00-2020-SLI-1578
Event Code: 08ESMF00-2020-E-04932
Project Name: 3331 Rosewood Lane

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.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2020-SLI-1578

Event Code: 08ESMF00-2020-E-04932

Project Name: 3331 Rosewood Lane

Project Type: ** OTHER **

Project Description: Bio Assessment

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.56898633792757N120.68661094795706W

Counties: El Dorado, CA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891
Species survey guidelines:
https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/321

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX 2: CHECKLIST OF PLANTS DETECTED IN THE STUDY AREA

Appendix 2:

Plants Observed at 3331 Rosewood Lane, Somerset on April 20, 2020

Common Name	Scientific Name
Yarrow	*Achillea millefolium*
Chilean trefoil	*Acmispon wrangelianus*
California buckeye	*Aesculus californicus*
Water plantain	*Alisma plantago-aquatica*
Common fiddleneck	*Amsinckia menziesii*
Western pearly everlasting	*Anaphalis margaritacea*
Silvery everlasting	*Antennaria argentea*
White leaf manzanita	*Arctostaphylos viscida*
California mugwort	*Artemisia douglasiana*
Lady fern	*Athyrium filix-femina*
Slender wild oat	*Avena barbata*
Coyote bush	*Baccharis pilularis*
Ripgut brome	*Bromus diandrus*
Soft chess	*Bromus hordeaceus*
Incense cedar	*Calocedrus decurrens*
Italian thistle	*Carduus pycnocephalus*
Wedge leaf ceanothus	*Ceanothus cuneatus*
Deer brush	*Ceanothus integerrimus*
Yellow star thistle	*Centaurea solstitialis*
Bear clover	*Chamaebatia foliolosum*
Wavy leaf soap plant	*Chlorogalum pomeridianum*
Clarkia	*Clarkia sp.*
Narrow leaf miner's lettuce	*Claytonia parviflora*
Hedgehog dogtail grass	*Cynosurus echinoides*
Blue dicks	*Dichelostemma capitatum*
Bush monkeyflower	*Diplacus aurantiacus*
Needle spikerush	*Eleocharis acicularis*
Pale spikerush	*Eleocharis macrostachya*
Blue wildrye	*Elymus glaucus*
Golden fleece	*Ericameria arborescens*
Yerba santa	*Eriodictyon californicum*
Wooly sunflower	*Eriophyllum lanatum*
Fillaree	*Erodium botrys*
Fillaree	*Erodium cicutarium*
Bedstraw	*Galium aparine*
Bedstraw	*Galium sp.*
Nit grass	*Gastridium phleoides*
Cut leaf geranium	*Geranium dissectum*
Toyon	*Heteromeles arbutifolia*
Wall barley	*Hordeum murinum*
Dusky horkelia	*Horkelia fusca*
Smoot cat's ear	*Hypochaeris glabra*
Rush	*Juncus sp.*
Bush beardtongue	*Keckiella breviflora*
California goldfields	*Lasthenia californica*
Whisker brush	*Leptosiphon ciliatus*
Purple sanicle	*Lomatium bipinnatifida*
Miniature lupine	*Lupinus bicolor*
Lupine	*Lupinus sp.*

Pacific woodrush	*Luzula comosa*
Pineapple weed	*Matricaria discoidea*
Coyote mint	*Monardella villosa*
White nemophila	*Nemophila heterophylla*
Bird's foot fern	*Pellaea mucronata*
Goldback fern	*Pentagramma triangularis*
American mistletoe	*Phoradendron leucarpum*
Ponderosa pine	*Pinus ponderosa*
Gray pine	*Pinus sabiniana*
Rusty popcorn flower	*Plagiobothrys nothofulvus*
Popcorn flower	*Plagiobothrys sp.*
English plantain	*Plantago lanceolata*
Long spurred plectritis	*Plectritis ciliosa*
Bulbous bluegrass	*Poa bulbosa*
Licorice fern	*Polypodium calirhiza*
Chokecherry	*Prunus virginiana*
Canyon live oak	*Quercus chrysolepis*
California black oak	*Quercus kelloggii*
Interior live oak	*Quercus wislizeni*
Brickle-seed buttercup	*Ranunculus muricatus*
Western buttercup	*Ranunculus occidentalis*
Sierra gooseberry	*Ribes roezlii*
Himalayan blackberry	*Rubus armeniacus*
Sheep sorrel	*Rumex acetosella*
Curly dock	*Rumex crispus*
Pacific sanicle	*Sanicula crassicaulis*
Checkermallow	*Sidalcea sp.*
Milk thistle	*Silybum marinum*
Chickweed	*Stellaria media*
Common snowberry	*Symphoricarpos albus*
Fringepod	*Thysanocarpus radians*
Tall sock destroyer	*Torilis arvensis*
Poison oak	*Toxicodendron diversilobum*
White clover	*Trifolium repens*
Ithuriel's spear	*Triteleia laxa*
Moth mullein	*Verbascum blattaria*
Common mullein	*Verbascum thapsus*
Western vervain	*Verbena lasiostachys*
Purple vetch	*Vicia benghalensis*
Spring vetch	*Vicia sativa*
Violet	*Viola sp.*
Narrowleaf mule's ears	*Wyethia angustifolia*
Woolly mule's ears	*Wyethia mollis*

APPENDIX 3: SITE PHOTOS

































































Appendix E

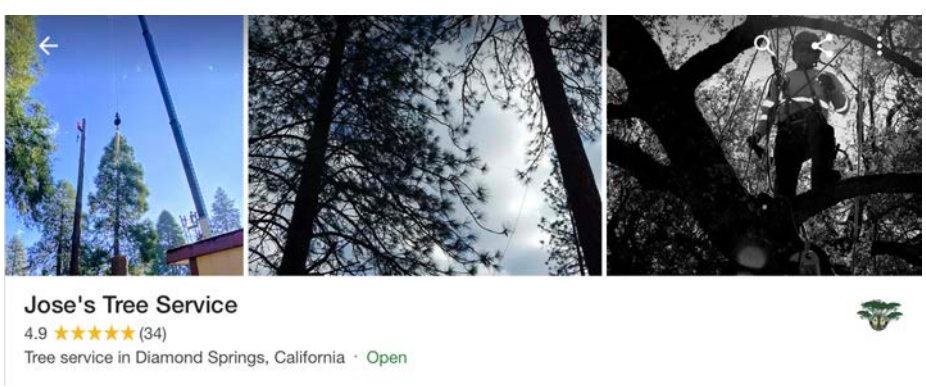
Oak Tree Removal Study

Prepared By:

Eriberto (Eric) Corona
Arborist ID WE-12398A
(530) 957-4826
4000 Highway 49, Unit B
7/12/21
josertreeservice@gmail.com

Prepared For:

Jason
(845) 656-1705
Rosewood Lane



The intention of this Arborist Report is to reduce impact of site construction to the surrounding trees or root systems. Trees are naturally, to some extent, hazardous and pose risk from breakage, failure or other causes and conditions. Recommendations that are made are intended to reduce the risk of failure and damage to life and property, but by no means can there be any guarantee or certainty that upon completion of protective measures, the tree will not fail or die. Events such as storms, hazardous conditions, root problems, girdling roots, and other unforeseen circumstances, even when all protective measures are in place, can still damage and cause a tree to fail or die. All recommendations are being made with the best of intentions to protect and preserve the natural assets. As a last resort, a recommendation will be made to remove the tree if the arborist predicts it will die or fail, but, even a highly experienced arborist with years in the business sometimes fails to predict the future outcome of the tree, expecting it to survive with all protective measures in place but unfortunately dies. The arborist will not be held liable for any present or future fees in the event of any tree death because of negligence of the contractor or homeowner, in the event the tree fails to survive construction impacts, or because the Arborist's recommendations were not followed in order to avoid mitigation fees. In the event the homeowner decides to avoid mitigation fees in any possible way, the Arborist nor the company whom the Arborist is working for will be held liable for any fees for illegal removal of oaks pre, during, or post construction, as everything outlined is done according to the ORCO guidelines.

Orco Exemptions El Dorado County

B. Fire Safe Activities. Actions taken pursuant to an approved Fire Safe Plan for existing structures, or a Community Wildfire Protection Plan, or in accordance with Defensible Space maintenance requirements for existing structures as identified in California Public Resources Code (PRC) Section 4291 are exempted from the mitigation requirements included in this Chapter. Oak resources impacts for initial Defensible Space establishment for new development are not exempt from the mitigation requirements included in this Chapter.

In addition, fuel modification activities outside of Defensible Space areas that are associated with fuel breaks, corridors, or easements intended to slow or stop wildfire spread, ensure the safety of emergency fire equipment and personnel, allow evacuation of civilians, provide a point of attack or defense for firefighters during a wildland fire, and/or prevent the movement of a wildfire from a structure to the vegetated landscape, where no grading permit or building permit is applicable, are exempted from the mitigation requirements included in this Chapter.

I. Dead, Dying, or Diseased: Individual native oak tree removal (including individual valley oak trees and valley oak trees within valley oak woodlands) is exempted from the mitigation requirements included in this Chapter when:

1. The tree is dead, dying, or diseased, as documented in writing by a Certified Arborist or Registered Professional Forester; and/or

2. The tree exhibits high failure potential with the potential to injure persons or damage property, as documented in writing by a Certified Arborist or Registered Professional Forester.

J. Exemption for Personal Use. Removal of a native oak tree, other than a Heritage Tree or individual valley oak trees and valley oak woodlands, when it is cut down on the owner's property for the owner's personal use, is exempted from the mitigation requirements included in this Chapter provided that no more than 8 trees are removed from a single parcel per year and provided that the total diameter inches at breast height (dbh) of trees removed from a single parcel per year does not exceed 140 inches.

1. Identify, Locate, and Quantify All Oak Resources on the Property: 2 Acre Improvement

Legend		
Color	**Meaning**	**Acres**
Green, Purple, Orange, Red	Total Oak Woodland Area	0.410
Yellow	Other trees	0.045
Green	Other oak woodland area (not protected)	0.126
Purple	Diseased oaks	0.013
Orange	Oak woodland area (protected)	0.165
Red	Oak woodland area removed	0.096

2. Identify and Quantify Project Related Impacts to Oak Resources:

Potential impacts that result from construction to oak resources are related to grading and trenching. Severe grading around the root crown or within the drip line can have adverse effects on the overall health and longevity of the trees. For that reason, care should be taken when altering natural levels of land. If more than 40% of the root crown is destroyed or deeply covered with soil, future survival expectancy will be greatly diminished.

- Trenching around the root system or within the drip line of trees has the same effect if not worse than grading, the reason being that the absorbing roots are found in the upper 6-12" of soil. These absorbing roots are responsible for the positive intake of minerals and nutrients from natural decay of the land.

3. Best Management Practices:

- Soil compaction is the greatest threat to a trees health during construction. Erect a barrier as the Tree Protection Zone (TPZ) which will not allow any grading, excavating, or construction activity on trees not to be removed. Guideline for erecting fence is 1 foot diameter for each inch of trunk diameter; alternative is to lay mulch 6-12 inches thick on the soil surface around the tree to disperse the weight of construction equipment, remove or spread the chips post construction to a layer of 2-4 inches. An orange outline has been drawn around the trees to be protected in item 1 of this letter.
- As a general rule, 20% of the root system can be destroyed before trees start to show signs of stress. If 40% of the root system is lost, the tree will probably die
- Post construction, do not trim any of the trees for the next 2-5 years, allow them to recover with as much foliage as possible. There is a misconception that trimming more is better, but that only hurts the trees overall health. We want to allow the trees to grow as many leaves as possible and thereafter work on the structure of the tree. If any branches are needing to be trimmed, always consult with your arborist first. It is true that trees may not experience negative effects right after construction, but that is not the aim and goal of protection. Trees sometimes don't show symptoms until much later in life, and that's the area where this protection is being focused. The less damage we incur now, the longer the trees will be enjoyed for generations to come.

4. Proposed Actions to Mitigate Impacts to oak Resources: Option C chosen

Tree Outline Color	Common Name	Species	# of acres impacted	Total oak woodland area (acres)	% impacted of oak woodland	Non-oak woodland (acres)	Exem.	Fees
Red	Canyon Live Oak, Black Oak	Quercus Velutina, Quercus Chrysolepis	2	0.41	23.68%	0.045	C; In lieu fee payment	$3,923.77
Orange	Trees to be protected, follow guidelines for TPZ fence or mulch layer found in section 3; note orange area in map in section 1 for protected trees							

Math: 1:1 ratio will be used; $8,285/acre for a 2 acre impaction

35,361/87,120 = .41 total oak woodland area

8,374/87,120 = .096 oak woodland area impacted/removed

3,912/87,120 = .0449 non oak woodland

8,374/35,361 = .2368

2 acres x .2368 x 8,285/acre = $3,923.77

1,191/87,120 = .013 acres of oak diseased with mistletoe- even after removing all the mistletoe the trees would not be at a "health" point where a vigorous tree would be the outcome (percentage not included in the total fee)

14,459/87,120 = .165 Protected oak woodland

11,017/87,120 = .126 other oak woodland area (not protected)

5. Identification of Responsible Parties:

Jason- Homeowner of the property will be responsible to enact and to make sure that all guidelines are complied with

6. Identification of Maintenance, Monitoring, and Reporting Requirements:

There are potential impacts for the oaks with an orange outline, for that reason a TPZ (tree protection zone) should be set up for these particular trees. Grade changes can impact the root system severely, the guideline for erecting the fence is 1 foot diameter for each inch of trunk diameter or at a minimum, place the fence on the edge of the drip line of the trees. If 40% or more of the root system is destroyed due to excavation or other construction practices, the trees will more than likely die. An alternative is to lay mulch 6-12 inches thick on the soil surface around the tree to disperse the weight of construction equipment and to avoid any excavation; remove or spread the chips post construction to a layer of 2-4 inches.

- All areas encircled in orange should be protected with a TPZ in order to reduce construction damage

8. Site Map(s):

Attached

9. Summary Data Sheet:

Attached

10. Inventory:

Common Name	Species	DBH	Multi-Stem (in.)	Height (feet)	Canopy Spread (feet)
Black Oak	Quercus Velutina	30"	Yes, 13", 17"	40'	25'
Canyon Live Oak	Quercus Chrysolepis	31"	Yes, 16", 15"	40'	35'
Canyon Live Oak	Quercus Chrysolepis	33"	Yes, 16", 17"	35'	25'

COMMUNITY DEVELOPMENT SERVICES
PLANNING AND BUILDING DEPARTMENT

2850 Fairlane Court, Placerville, CA 95667

Phone: (530) 621-5355 www.edcgov.us/Planning/

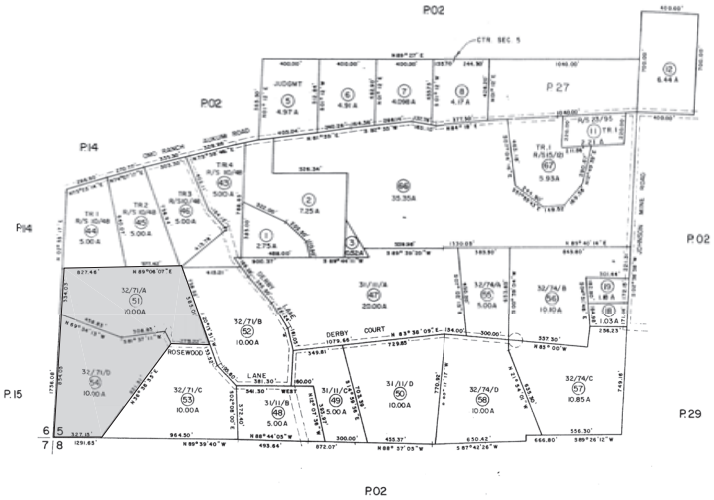
Summary Data Sheet of Oak Resources Impacts for Oak Tree/Oak Woodland Removal Permits

Description		Blue (*Quercus douglasii*)	California Black (*Quercus kelloggii*)	Canyon Live (*Quercus chrysolepis*)	Interior Live (*Quercus wislizeni*)	Oregon White (*Quercus garryana*)	Valley (*Quercus loabata*)	Oracle (hybrid) (*Quercus x morehus*)
Individual Native Oak Trees								
Quantity (number of trees) of individual native oak trees to be removed, by species								
Quantity (number of trees) of individual native oak trees to be removed, greater than 24 inches and less than 36 inches (dbh), by species								
Total trunk diameter inches (dbh) to be removed*								
Heritage Trees								
Quantity (number of trees) of Heritage Trees to be removed, by species								
Total trunk diameter inches (dbh) to be removed*								
Oak Woodlands								
Total Acreage of existing oak woodlands**	.41							
Acreage of existing oak woodlands to be removed	.096							
Percentage of existing oak woodlands to be removed*	23.68%							

**** Information used for purposes of calculating in-lieu mitigation fee payment.***

***** If Heritage Trees occur within oak woodlands, the area of impacted Heritage Tree(s) should be included in oak woodland acreage calculations.***

VICINITY MAP
No Scale



ASSESSOR'S PARCEL MAP
±1" = 200'-0"

A Cultivation Facility for

Jason Kipperman

3331 Rosewood Lane
Somerset, California 95684

GENERAL NOTES

1. THE BUILDER SHALL VERIFY THAT SITE CONDITIONS ARE CONSISTENT WITH THESE PLANS BEFORE STARTING WORK. WORK NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED TO THE SAME QUALITY AS SIMILAR WORK THAT IS DETAILED. ALL WORK SHALL BE DONE IN ACCORDANCE WITH BUILDING CODES AND LOCAL CODES.

2. WRITTEN DIMENSIONS AND SPECIFIC NOTES SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND GENERAL NOTES. THE ENGINEER/DESIGNER SHALL BE CONSULTED FOR CLARIFICATION IF SITE CONDITIONS ARE ENCOUNTERED THAT ARE DIFFERENT THAN SHOWN, IF DISCREPANCIES ARE FOUND IN THE PLANS OR NOTES, OR IF A QUESTION ARISES OVER THE INTENT OF THE PLANS OR NOTES. CONTRACTOR SHALL VERIFY AND IS RESPONSIBLE FOR ALL DIMENSIONS (INCLUDING ROUGH OPENINGS).

3. DIMENSIONS ARE TO FACE OF FRAMING, UNLESS NOTED OTHERWISE.

4. ALL MANUFACTURERED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ADJUSTED, USED, CLEANED AND CONDITIONS AS DIRECTED BY THE MANUFACTURER, UNLESS OTHERWISE DIRECTED.

5. ALL MATERIALS SHALL BE NEW AND UNUSED, UNLESS OTHERWISE NOTED.

6. THE BUILDING, BUILDING SITE AND NEIGHBORING BUILDINGS AND PROPERTIES SHALL BE PROTECTED FROM ANY DAMAGE THAT MAY OCCUR DUE TO THE PERFORMANCE OF THIS WORK. ANY DAMAGES THAT OCCUR ARE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

7. ALL WASTE AND REFUSE CAUSED BY THIS WORK SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OFFROPERLY BY THE GENERAL CONTRACTOR.

8. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY WORK KNOWINGLY PERFORMED CONTRARY TO SUCH LAWS, ORDINANCES, OR REGULATIONS. THE CONTRACTOR SHALL ALSO PERFORM COORDINATION WITH ALL UTILITIES AND STATE SERVICE AUTHORITIES.

9. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND PROPER FUNCTION OF PLUMBING, HVAC AND ELECTRICAL SYSTEMS.

10.THIS OFFICE SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, ACTS OR OMISSIONS OF THE CONTRACTOR OR SUBCONTRACTOR, OR FAILURE OF ANY OF THEM TO CARRY OUT WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. ANY DEFECT DISCOVERED IN THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THIS OFFICE BY WRITTEN NOTICE BEFORE PROCEEDING WITH WORK. REASONABLE TIME NOT ALLOWED THIS OFFICE TO CORRECT THE DEFECT SHALL PLACE THE BURDEN OF COST AND LIABILITY FROM SUCH DEFECT UPON THE CONTRACTOR.

11.ALL RECESSED LIGHTS IN INSULATED CEILINGS TO HAVE THE I.C. LABEL.

12.PROVIDE SOLID BLOCKING UNDER ALL BEARING WALLS PERPENDICULAR TO JOISTS AND OTHER BEARING POINTS NOT OTHERWISE PROVIDED WITH SUPPORT. PROVIDE SOILD BLOCKING AT ALL CABINET AND GRAB BAR LOCATIONS.

13.GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE SECTIONS OF CFC CHAPTER 33, *FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.*

14. PRIOR TO FINAL INSPECTION, GENERAL CONTRACTOR SHALL PROVIDE DOCUMENTATION INDICATING THAT THE BUILDING HAS BEEN TESTED BY A LICENSED CONTRACTOR AND COMPLIES WITH CFC SECTION 510, *EMERGENCY RESPONDER RADIO COVERAGE.*

15. ALL TRASH DUMPSTERS SHALL BE STORED INSIDE BUILDING AT ALL TIMES. [Z11-125,#5-6]

16. GATE REQUIREMENTS: (NO GATES ARE PROPOSED FOR THIS PROJECT)
ALL GATES SHALL BE UL 325 COMPLIANT.
ALL GATES TO BE SET BACK FROM CURB/ROADWAY BY 40' TO ALLOW EMERGENCY VEHICLES TO CLEAR ROADWAY & CURB.
ALL GATES TO HAVE A MINIMUM 20' CLEAR ACCESS WIDTH.
AUTOMATIC GATES TO BE PROVIDED WITH AC POWER AND BE PROVIDED WITH KEY OVERRIDE SWITCH (KNOX) AND RADIO OPERATED CONTROLLER (CLICK2ENTER)

PROJECT DATA

OWNER:	Jason Kipperman
ARCHITECT:	Jon N. Westphal 6960 Gild Creek Road Shingle Springs, California 95682 (530) 677-9840 C-19845
PROJECT ADDRESS:	3331 Rosewood Lane Somerset, California 95684
ASSESSOR'S PARCEL NUMBER:	095-130-51-100 & 095-130-54-100
CODE REFERENCES:	2019 C.G.B.C., C.B.C, C.E.C., C.M.C, C.P.C., C.E.C., Title 24 2019 California Fire Code NFPA 13, 2019 Fire Sprinkler System NFPA 55, 2019 Compressed Gas and Cryogenic Fluids Code NFPA 72, 2019 Fire Alarm System Sacramento City Ordinance No.: 2017-0005 California Code of Regulations - Title 19
OCCUPANCY GROUP:	F-1
CONSTRUCTION TYPE:	V-b
SNOW LOAD:	0 SPRINKLERS: No SPECIAL INSP. No
PROJECT SCOPE:	A Conditional Use Permit application for a 'Mixed-Light' cannabis cultivation facility on two parcels in El Dorado County, California
C.U.P. NO.:	

SHEET INDEX

No.	Date	Revision Type

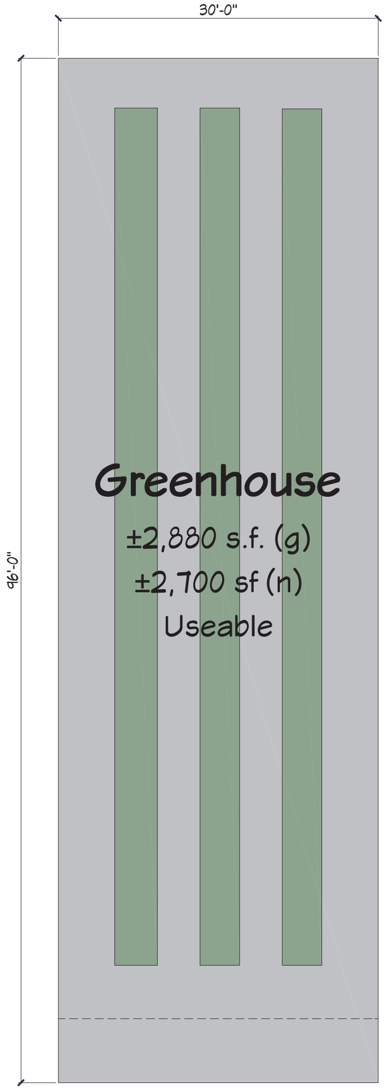
Jon N. Westphal - Architect
6960 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

COVER SHEET

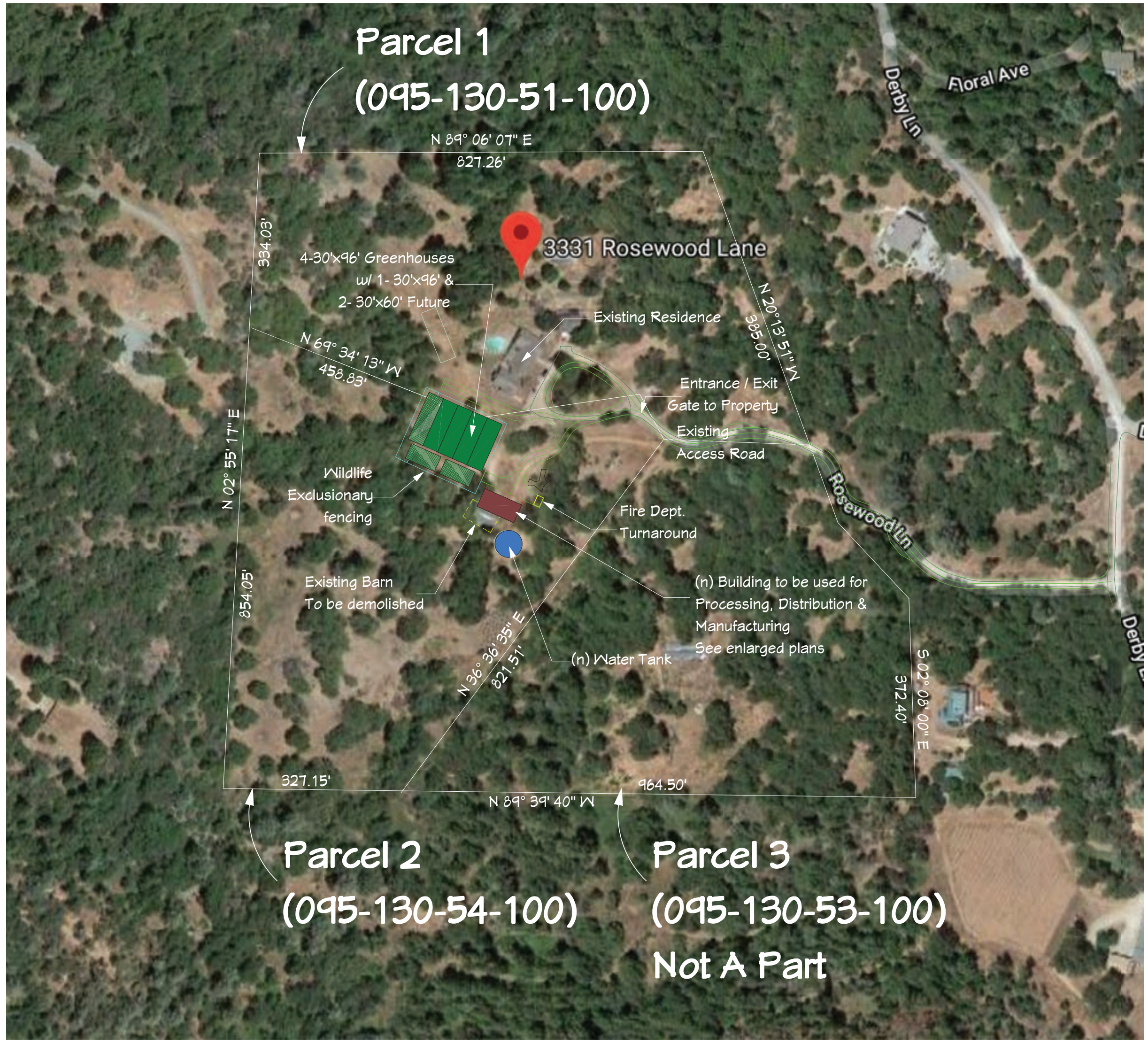
A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO: 1938Base
DATE: 5/17/2021
SHEET NO: A-1

D:\JNW\Architect_Drafting\1938_3331RosewoodLane\Drawings\1938Base-layout



TYPICAL GREENHOUSE
3/16" = 1'-0"



N

OVERALL SITE PLAN
1" = 100'-0"

No.	Date	Revision Table Description

Jon N. Westphal - Architect
6960 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

OVERALL SITE PLAN

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO: 1938Base

DATE: 5/17/2021

SHEET NO: A-2

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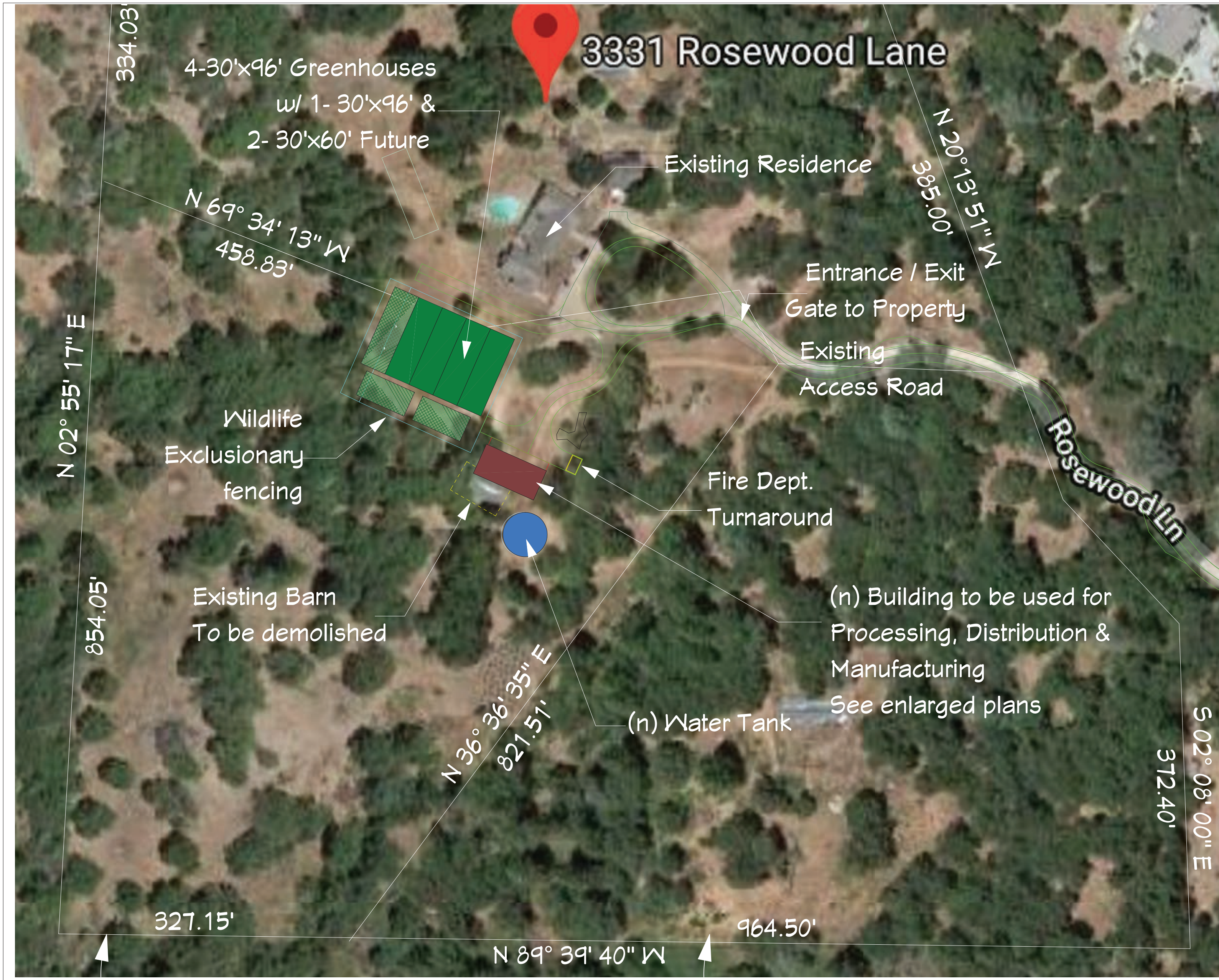


PREMISE PLAN
1" = 50'-0"

No.	Date	Revision Table Description

Jon N. Westphal - Architect
6960 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

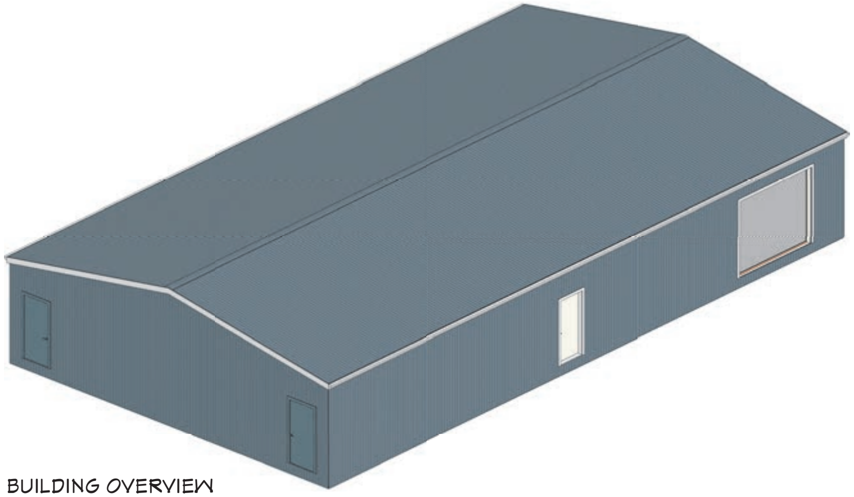
PREMISE PLANS

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

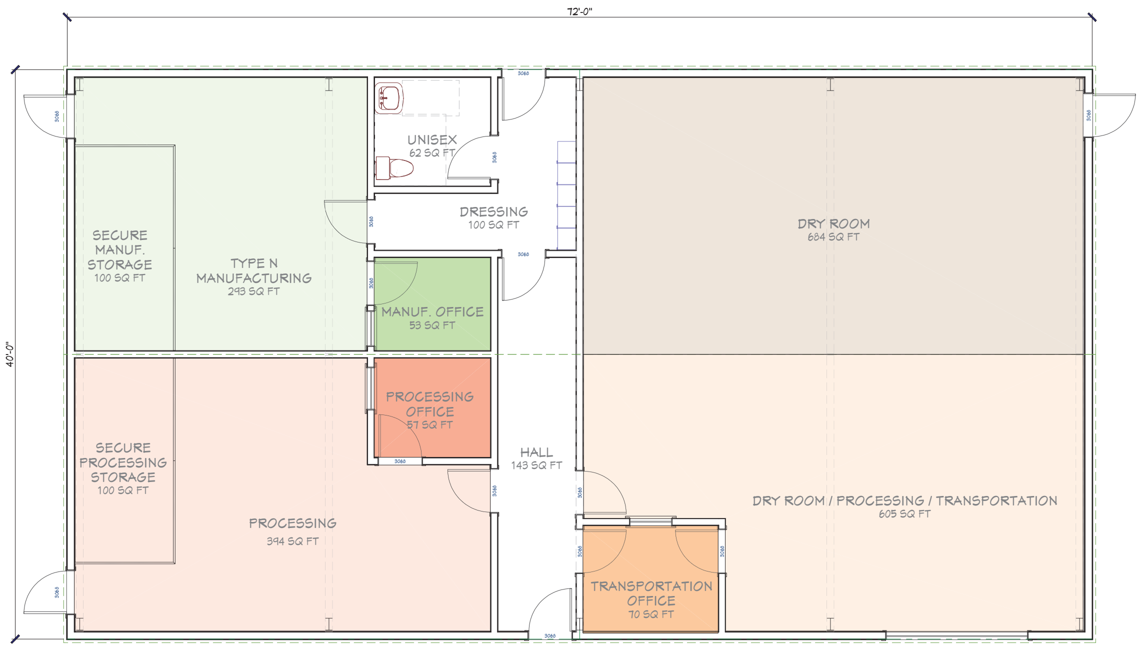
FILE NO: 1938Base

DATE: 5/17/2021

SHEET NO: A-3



BUILDING OVERVIEW



PROCESSING BUILDING
1/4" = 1'-0"

No.	Date	Revision Table Description

Jon N. Westphal - Architect
6960 Gild Creek Road
Shingle Springs, California 95682
(530) 677-9840 • jon@jnwarchitect.com

PROCESSING BUILDING

A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684

FILE NO: 1938Base

DATE: 5/17/2021

SHEET NO: A-4

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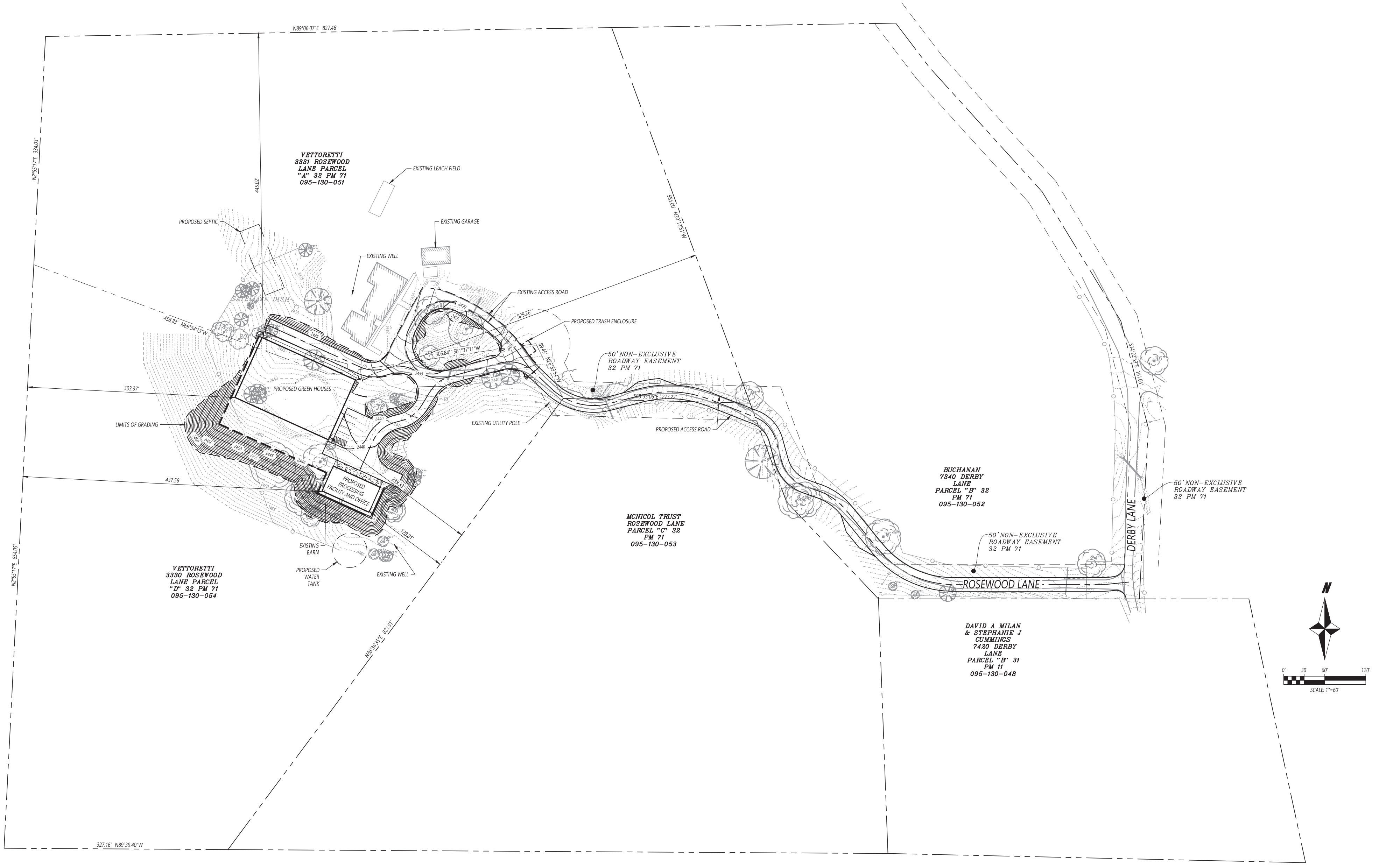


CONCEPTUAL SITE PLAN

CARTWRIGHT NOR CAL
CIVIL ENGINEERING & PROJECT MANAGEMENT
3010 LAVA RIDGE COURT, SUITE 160
ROSEVILLE, CALIFORNIA 95661
T (916) 978-4001
WWW.CARTWRIGHTENGINEERS.COM

3331 ROSEWOOD LANE
SOMERSET, CA 95684

DATE: 05/03/2021
SCALE: 1"=60'
DRAWN BY: RP

Appendix F

Cultural Resources Assessment

CONFIDENTIAL - Not meant for Public Distribution

CULTURAL RESOURCES ASSESSMENT FOR THE CANNABIS CULTIVATION OPERATION AT 3331 ROSEWOOD LANE, SOMERSET, EL DORADO COUNTY, CALIFORNIA

Prepared for:
Jason Kipperman
3331 Rosewood Lane
Somerset, CA 95684

Prepared By:
Tim Spillane, MA, RPA

NATURAL INVESTIGATIONS COMPANY

3104 O Street, #221
Sacramento, CA 95816

USGS 7.5-Minute Quadrangle: Aukum 1952

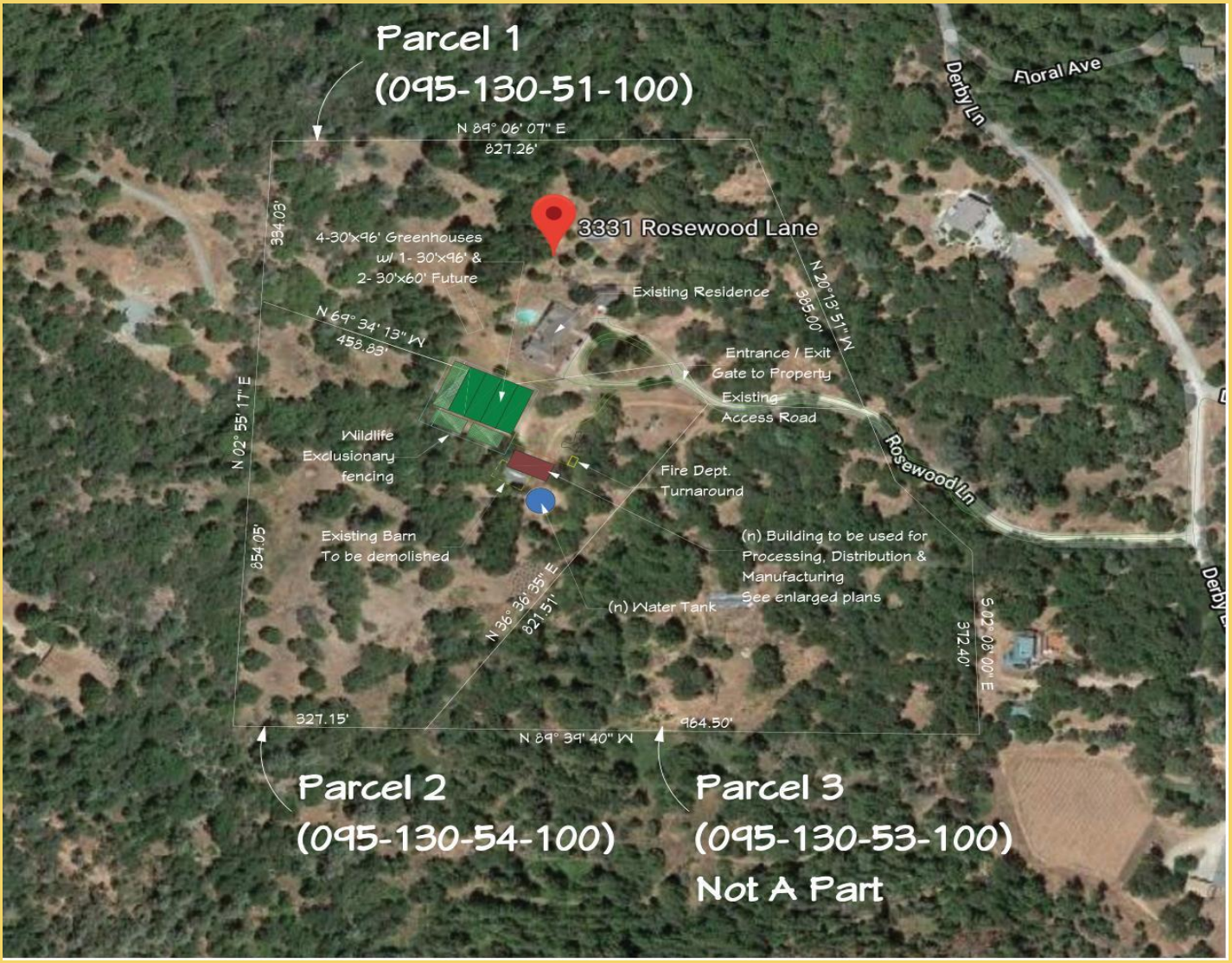
Negative Cultural Resources Survey; Somerset, El Dorado County

April 2020

Appendix G

Fire Safe Plan

Fire Safe Plan



Rosewood Commercial Cannabis Operating Permit Project
3331 Rosewood Lane – Somerset
County of El Dorado CUP21-0007

Phillips Consulting Services

4328 Empire Creek Circle, Georgetown, CA 95634
E-Mail: Rphillips3401@yahoo.com
Cell Phone # 530.217.7432

TABLE OF CONTENTS

PLAN APPROVAL SHEET

The Rosewood Commercial Cannabis Operating Permit Fire Safe Plan has been designed to mitigate the wildfire risk presented for the commercial project at 3331 Rosewood Lane, in Somerset, CA. The plan has been developed to conform with California Code of Regulations Title 14 §§ 1270-1276 (Fire Safe Regulations), California Code of Regulations Title 24, Part 9 – § 4903 (Plans) and El Dorado County Fire Protection Standard W-002 (Wildland Urban Interface Fire Protection Plans).

The Rosewood Commercial Cannabis Operating Permit Wildfire Safety Plan has been reviewed and approved by the following fire agencies located in El Dorado County:

DATE PUBLISHED: March 15, 2024

PREPARED BY:	APPROVED BY:	APPROVED BY:
Ronald A. Phillips	Ken Earle, Fire Marshal	Jeff Hoag, Battalion Chief
Phillips Consulting	Pioneer Fire Prot. District	CAL FIRE - AEU

FORWARD

The following **Rosewood Commercial Cannabis Operating Permit Fire Safe Plan** (FSP) has been prepared for 3331 Rosewood Lane (Project) in Somerset, California. This FSP for the Project meets the requirements described in Chapter 49 of the California Fire Code and various other State and County statues and regulations. The FSP addresses the following topics:

- Project Scope
- Fire Risk Analysis
- Fuel Modification Practices for the Project
- Fire Safety Plan Recommendations
- Plan Appendix Materials

The goals of this Fire Safe Plan are as follows:

- Reduce the exposure of vulnerable buildings to high intensity flames.
- Reduce the quantity of embers accumulating at a building based on factors related to the building characteristics and adjacent fuel treatments.
- Reduce the likelihood of urban conflagration due to treatment of fuels in proximity to buildings.
- Enhance the level of preparedness by both residents and visitors for safe evacuation during a wildfire or similar hazardous situation.

The FSP specifically applies to the Rosewood Commercial Cannabis Operating Permit Project (CUP21-0007). The FSP provides a framework for protection of residents and visitors from natural hazards, the prevention of fire, and preparation for responding to an emergency evacuation of the Project should the need arise. The FSP is intended to be utilized during the development, construction, and occupancy phases of the Project.

For the purpose of interpreting and applying the provisions found within each chapter the terms shall and should are found throughout. The use of the term “shall” refer to requirements of the Plan as mandated through State statue or regulation. The use of the term “should” refer to recommendations cited in the document by the authors.

CHAPTER 1: PROJECT SCOPE

1.1 Strategic Highlights

Project Name: Rosewood Commercial Cannabis Operating Permit (CUP21-0007)

Location: The Project is located west of Derby Lane, south of Omo Ranch Road and east of Rendezvous Lane in Somerset, California. El Dorado County Assessor Parcel #s 095-130-051 and 095-130-054. The Map Coordinate for the Project is 38.569785N,120.685920W. The Project applicant is Mr. Jason Kipperman. See Figure 1 for an area map for the Project site.

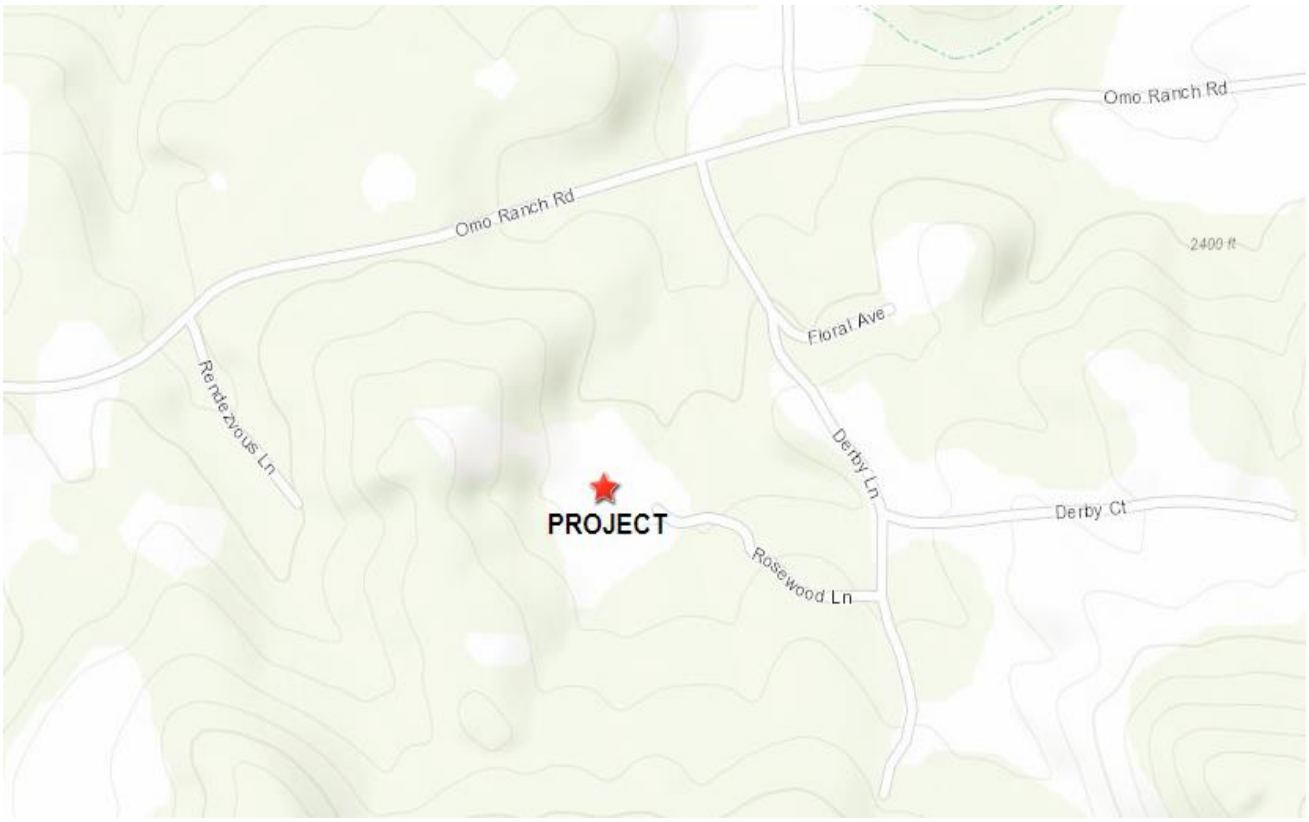


Figure 1: Area Map

Project Description: The Project is seeking to obtain a Conditional Use Permit from the County of El Dorado for a "Mixed-Light" cannabis cultivation facility. The Project will be located on two parcels adjacent to each other on Rosewood Lane. Both parcels are 10-acres in size. Up to 10 full-time and 10 seasonal employees are anticipated to be on site during peak production periods.

The Project is bordered by the following adjoining properties:

- **North Side** – Three 5-acre vacant rural residential parcels are located north of the Project.
- **East Side** – A 10-acre vacant rural residential parcel (APN # 095-130-053) located on Rosewood Lane is located east of the Project site.
- **West Side** – A 23.87-acre vacant rural residential parcel (APN # 095-150-009) located on Rendezvous Lane is located west of the Project site. The property currently contains significant wildfire fuels that can pose a risk to the Project.
- **South Side** – A 45-acre developed residential parcel (APN # 095-021-044)) located at 7440 Derby Lane is located south of the Project site. The property currently contains significant wildfire fuels that can pose a risk to the Project.

See Figure 2 for the existing land use condition of the Project.

Figure 2: Project Site Looking South from 3331 Rosewood Lane

1.2 Looking Ahead

The Project includes the development and construction of one 3,000 Square Foot (FT²) **Group F1, (Moderate Hazard Factory Use)** commercial building of II-B construction, and four 2,880 FT² Greenhouse structures[1] of II-B construction. The Project site is mostly located on Parcel 095-130-054 which has an existing barn structure that is proposed to be replaced by an approximately 3,000 square foot commercial building. See Figure 3 for additional details on the proposed site plan for the Project.

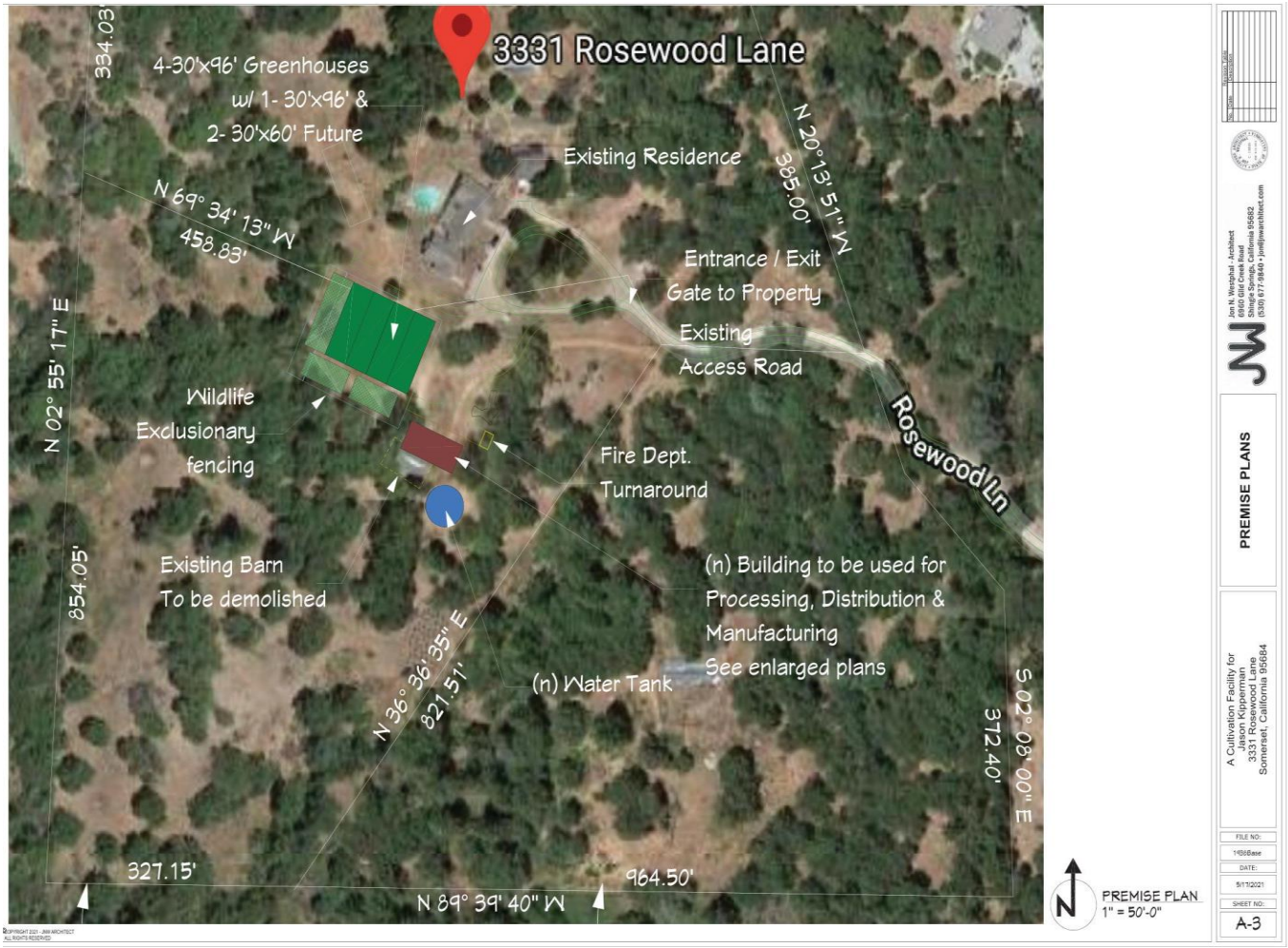


Figure 3: Project Site Plan

The Project will be built to facilitate a business that cultivates, manufactures, and distributes cannabis on the permitted land for sale to the public. The use of hazardous materials is not anticipated with this Project.

[1] 1-2,880 FT² and 2 -1,800 FT² additional greenhouse structures are proposed on site in the future.

Chapter 2: FIRE PROTECTION PLANNING

2.1 Fire Hazard Versus Fire Risk

The threat of wildfire exposure to people, critical infrastructure, structures, and communities is based upon a comprehensive vulnerability assessment of an area. This vulnerability assessment is usually completed through the evaluation of both *fire hazard* and *fire risk* factors. The term "hazard" describes the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fires intensity or rate of spread such as topography or weather conditions. The term "risk" describes the potential damage a fire can cause to buildings, critical assets/infrastructure, and other values at risk in individual open space areas and other wildland urban interface areas.

Landowners, managers, and fire officials need to consider the potential fire hazard and risk factors that may make their community vulnerable to a wildfire when making land management and development decisions in fire-prone areas[2]. This assessment also aids fire agencies in the preparation of pre-incident plans and resource deployment actions such as fire equipment staffing levels and resource placement during critical fire periods. This assessment should consider the factors described in Table 1 when assessing the wildfire exposure potential for an area:

Table 1: Hazard and Risk Assessment Factors

Hazard Assessment Factors	Risk Assessment Factors
• Vegetation (fuel) types present • Topography of the area • Weather conditions present during both seasonal and critical fire weather periods • Other criteria as determined by the Fire Agency	• Size and configuration of the WUI • Proximity of structures to the WUI • Building construction and defensible space provisions for structures near the WUI • Emergency access including public/private roads and trails • Local Fire Protection Capabilities • Water supply sources and other risk factors

[2] Wildfire Hazard and Risk Assessment, United Nations Office for Disaster Risk Reduction, 2017

2.2 Fire Hazard Assessment for the Project

The term Fire Hazard refers to the dangerous accumulation of flammable fuels in open space areas and other wildland urban interface areas (WUI). It is typically described at the landscape (area) level, usually referring to the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fires intensity or rate of spread. Fire hazard is based on the vegetation types likely to be present over the next 50 years that contribute to fire severity and ember production, the topography of the area and the average fire weather conditions present in the area.

Fire Hazard ratings are provided by CAL FIRE as part of their *Fire Hazard Zone Severity Mapping* program. One of the major hazards in the southern El Dorado County region is the threat of a disastrous wildfire endangering both people and property. The Project is also located within a designated[3] Wildland Urban Interface (WUI) community identified by the Federal Government as being at risk from a large wildfire due to fire behavior potential and values at risk.

The area is vulnerable to the threat of wildfire throughout the year subject to a variety of conditions including, but not limited to:

- Daily weather conditions such as air temperature, humidity, wind speed and direction.
- Climatic conditions such as drought, extended seasonal periods of hot, dry weather typically found in the summer and fall months, or seasonal rains typically found in the winter and spring months.
- Fuel moisture and growth cycle periods, especially in fine fuels such as the herbs and shrubs that are prevalent in the area.
- Human caused ignition factors such as arson, escaped debris burns and unsafe equipment operation.

[3] Federal Register *Urban Wildland Interface Communities within the Vicinity of Federal Lands that are at High Risk from Wildfires; (January, 2001);* Federal Register :: Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire

The Project area is located within a State Responsibility Area (SRA) for fire management. The current CAL FIRE Hazard Severity Zone[4] Map for El Dorado County identifies the Project as being inside a **High Fire Hazard Severity Zone.** All lands within 1/2 mile of the Project are located within the same severity zone. See Figure 4 for the Fire Hazard Map information for the Project and surrounding community.

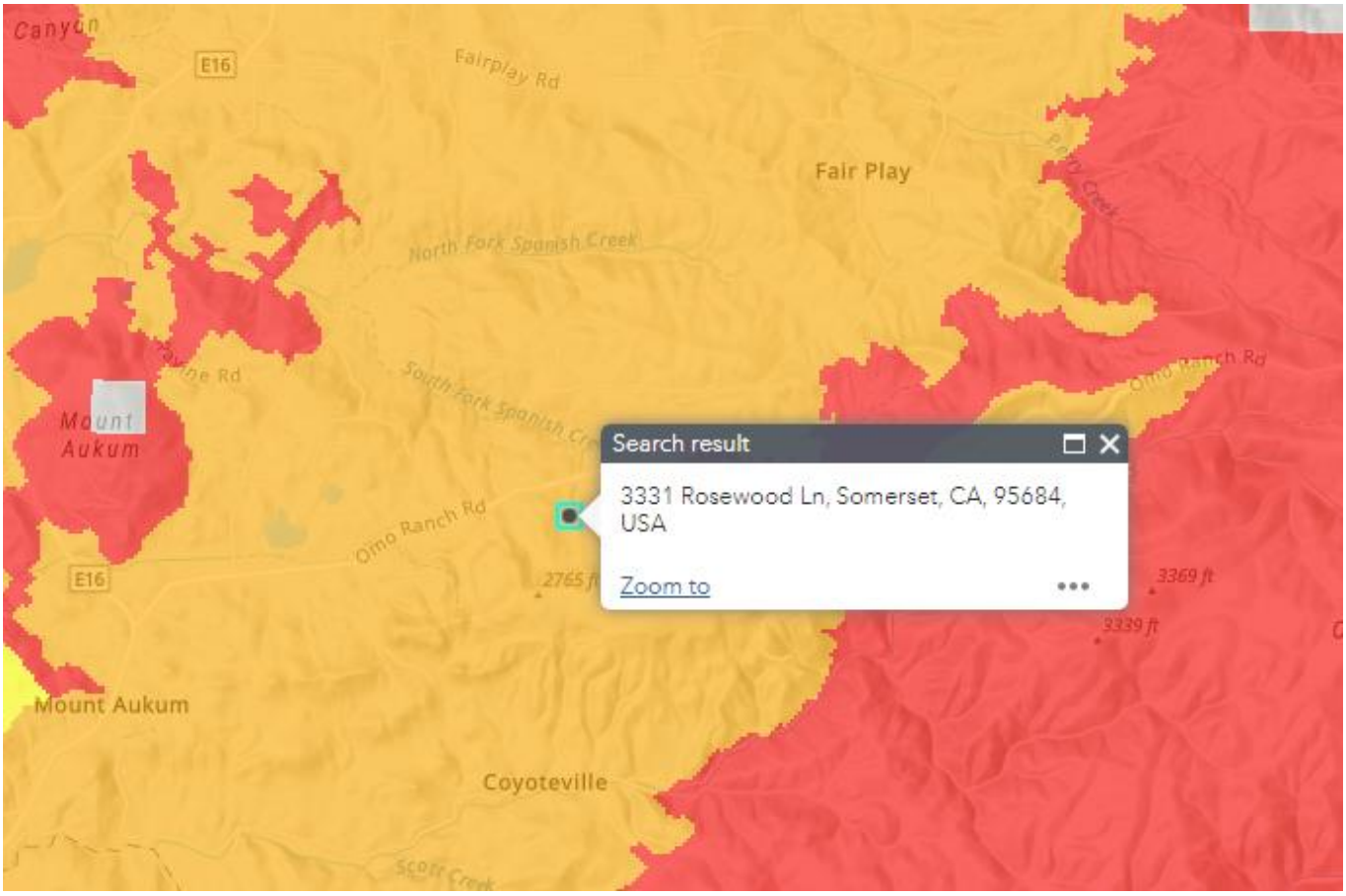


Figure 4: Fire Hazard Severity Zone Classification for the Project Site

2.3 Historical Fire Weather Conditions in the Project Area

Fire weather in El Dorado County is typically dominated by three general weather phenomena; the Delta push influence, north wind events, and east foehn winds caused by high pressure development in the Great Basin[5]. All three weather conditions cause potential increases in fire

[4] CAL FIRE; Fire Hazard Severity Zone Map for El Dorado County (April, 2024); Fire Hazard Severity Zones in State Responsibility Area - El Dorado County (azureedge.net).

[5] See Strategic Fire Plan for Amador El Dorado Unit; 2023; 2023 Strategic Fire Plan Amador El Dorado Unit (ca.gov); P.5.

intensity and size. The Delta influence is the most common and occurs frequently throughout the summer.

Characteristically, high pressure systems will dominate Northern California in the summer months bringing extremely hot and dry conditions over much of the region. As these systems develop, they tend to originate near the Delta and Sacramento areas bringing the marine influence to the area. This is generally considered a beneficial condition for fire behavior; slightly cooler afternoon temperatures and increases in relative humidity. However, the downside is the strong winds that typically accompany these patterns which can override any benefit that may come from cool, moist marine air.

This type of wind generally subsides after sundown causing fire behavior to drop off dramatically. The other critical wind patterns that are difficult to predict for El Dorado County are the northerly and easterly winds. They are relatively rare, and often are forecasted only the day before. Northerly or easterly winds are typically warmer and drier than most other wind patterns due to air compression. These conditions provide the perfect environment for increased fire intensity and large fire growth.

Fire growth is typically wind driven, however as these winds subside, fire immediately returns to fuel/topography driven in opposing directions to the wind driven direction. This type of wind event is commonly referred to as a Santa Ana wind in Southern California, and a Foehn wind in the Sierra/Cascade Region.

Predominant local weather patterns in the Project area[6] are characterized by warm, dry summers and cool, wet winters. Dry conditions traditionally begin around the beginning of May and last into late October. An average summer day is 95°- 105° Fahrenheit, winds from the southwest at 0-10 miles per hour, and relative humidity levels in the 15-25 percent range. Summer lightning storms are infrequent in the area. On average, the strongest wind speeds in the Somerset area occur in March through May, but winds can frequently exceed 20 mph throughout the local fire season period.

[6] Steely Fork Remote Automated Weather Station Site; National Weather Service. https://weather.nifc.gov

2.4 Vegetation (Fuels)

The predominant fire fuel types found in the Somerset area include Grey Pines, Canyon Live Oak, Black Oak, Chamise, Buckeye, Scotch Broom, Rosemary, and annual grasses. The Project area is bounded by an Oak Woodland Area[7]. Approximately 1 acre of this woodland is planned for removal to construct the project and maintain adequate defensible space for the Project. See Chapter 3 for additional details on the defensible space requirements for the Project.

2.5 Topography

The topography in the general area of the Project is classified as being a "foothill" terrain type which transitions from the Central Valley area of California to the Sierra Nevada Mountain range. The Project is located within the Coyote Ridge area at an elevation range of between 2400 – 2900 feet above sea level. Slopes within the Project are generally less than 20%. See Figure 5 for the existing topographic condition of the Project area.

Figure 5: Vegetation and Topography Typical of the South and West Areas of the Parcel

[7] See Rosewood Lane Arborist Report Prepared by Eric Corona (July, 2021).

2.6 Wildfire History

According to CAL FIRE statistics the majority of wildland fires that have occurred in the El Dorado County area were human caused[8]. Common fire ignition sources have included arson, equipment failure, escaped debris burns, and vehicle related causes. Table 2 describes the significant wildland fire history in the vicinity of the Project area:

Table 2: **Somerset Area Fire History** [9]

Year	Fire Name	Acres Damaged
1992	Farnham	801
2005	Serenity	24
2014	Sand	4,239
2017	Ranch	140
2021	Caldor	221,000

No large wildfires (>10 acres) have been reported in the Project area between 1950 and 2023. The "Ranch" fire in 2017 burned to within 1,500 feet of the Project.

2.7 Fire Risk Assessment for the Project Area

A comprehensive fire risk analysis is an important component of the Fire Safety Plan for the Project. The term "risk[10]" describes the probability of adverse wildfire exposure to people, to structures, critical assets/infrastructure and other values at risk located in the WUI Zone. This fire risk assessment was performed for the Project to determine relative risk, the extent of the wildfire hazards present, and applicable mitigation measures as outlined in National Fire Protection Association Standard No. 1144 (*Assessing Wildland Fire Hazards in the Structure Ignition Zone*), 2018 Edition.

Risk factors examined as part of this Project analysis include the following:

- Existing Conditions Found on the Project Site
- Size and configuration of the Wildland Urban Interface (WUI) Zone Adjacent to the Project
- Proximity of Structures Within the Project to the WUI Zone

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[8] 2023 *Strategic Fire Plan Amador-El Dorado-Alpine-Sacramento Unit;* P.60.
[9] Capitol Radio (2020) *A History of California Wildfires;* California Wildfire History Map (capradio.org)
[10] National Fire Protection Association Standard No 1144 (2018); Chapter 3, Section 3.3.19

- Building Construction of Structures and Hazardous Fuel Reduction Strategies Required to Reduce the Risk of Fire
- Emergency Vehicle Access Including Public/ Private Roads
- Local Fire Protection Capabilities
- Water Supply Sources for Fire Protection
- Critical Assets / Infrastructure at Risk

A detailed risk analysis of each of these points can be found below within this section.

2.8 Existing Conditions Found on the Project Site

The Project site is currently mostly undeveloped. An existing barn is located on the parcel and is planned to be removed as part of the Project. No high-voltage electric transmission power lines, essential service facilities, populations at risk, or critical infrastructure were identified within the current lands of the Project.

2.9 Size and Configuration of the Wildland Urban Interface (WUI) Zone Adjacent to the Project

The Project is adjacent to an approximately 10-acre parcel that contains an approximately 4,000 square foot residential building and associated uses. The proposed Project is located on a 10-acre parcel that also contains extensive hazardous vegetation on the south and western sections of the parcel. Both properties require on-going defensible space maintenance to protect them from the threat of a wildfire.

2.10 Building Construction and Fuel Modification Strategies Required to Reduce the Risk of Fire

Structures constructed within the Project shall comply with the current requirements of the California Building Code (CBC). The Project shall be constructed and maintained in accordance with the current design standards found in *California Building Code (CBC) Chapter 7A* (**Materials and Construction Methods for Exterior Wildfire Exposure**). Examples of where construction

methods and other development activities will meet the ignition resistant requirements found in this chapter include, but are not limited to, the following:

- Class A roof coverings, fire resistant valley flashings, and an approved means to prevent the accumulation of leaves and debris in roof gutters.
- Ventilation openings into enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces and underfloor ventilation openings.
- Exterior wall materials, decks, porches, balconies, stairs, and other Projections.
- Roof eaves and exterior porch ceilings.
- Exterior windows, doors, glazing and skylights.
- Accessory buildings and miscellaneous structures located within 50' of another building.

Areas located between 0-feet and 5-feet from a building shall remain non-combustible. Landscape materials and other vegetation located within 30' of buildings shall comply with the fire-resistant standards of PIO and CAL FIRE. Exterior combustible decks that cantilever over the natural slope of the property shall be enclosed to reduce the potential of burning embers from a wildfire creating spot fires that can extend into the building.

2.11 Emergency Vehicle Access Including Public/Private Roads

All roads and driveways[11] shall meet the minimum access requirements found within California Code of Regulations (CCR) Title 14, Section 1273 (Fire Safe Regulations) and Title 24, Part 9, Section 503 (Fire Apparatus Access Roads). Derby Lane provides access to the Project location from Omo Ranch Road. Derby Lane is currently a 16-foot wide partially paved and compacted gravel private road that provides access to Rosewood Lane, Floral Avenue and Derby Court.

Rosewood Lane is currently a 12-foot-wide compacted gravel and dirt private driveway that serves an approximately 4,000 square foot single-family residential dwelling at 3331 Rosewood Lane. This driveway also provides primary access to the Project site located on Parcel # 095-130-054 (3330 Rosewood Lane). See Figure 6 for information on the existing driveway serving the Project.

[11] CCR Title 14 – Section 1270.01 (Driveway) states that a "Driveway" shall not serve commercial or industrial uses at any size or scale.

Figure 6: Existing Driveway (Rosewood Lane) Serving the Project

Primary emergency vehicle access and public evacuation for the Project site shall comply with all of the road requirements described in CCR Title 14 – Sections 1273.01. See Appendix E for additional information on the regulation provisions described below. An emergency vehicle access road shall be constructed from Derby Lane to the Project site using the existing 50-foot-wide Rosewood Lane easement. This access road shall comply with the following measures:

a. The road shall provide a minimum of two ten (10) foot traffic lanes, not including shoulders and striping, as required by CCR Title 14 – Section 1273.01 (Width).
b. The road shall provide a minimum of fifteen (15) feet unobstructed vertical clearance and a fourteen (14) feet unobstructed horizontal clearance, as required by the Pioneer Fire Code and CCR Title 14 – Section 1273.01 (c).
c. The road shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and shall provide an aggregate base, as required by

CCR Title 14 – Section 1273.02 (Road Surface).

d. Road structures[12] shall be designed and maintained to support at least 40,000 pounds, as required by CCR Title 14 – Section 1273.02 (b).

e. At no point along the road shall the grade exceed 16%, as required by CCR Title 14 – Section 1273.03 (Grades).

f. No road or road structures shall have a horizontal inside radius or curvature of less than fifty (50) feet, as required by CCR Title 14 – Section 1273.04 (Radius).

g. An approved turnaround shall be provided within fifty (50) feet of the commercial building and greenhouse structures as required by CCR Title 14 – Section 1273.05 (Turnarounds).

h. Gated entrances across the road shall comply with the requirements described in El Dorado County Fire Chiefs Association Standard No. B-002 (Automatic & Manual Gates on Fire Access Roadways & Driveways). This document can be accessed via the following link: Fire Prevention Officers - El Dorado County Fire Chiefs association (edchiefs.org).

All buildings within the Project shall be issued an address by the County of El Dorado which conforms with the overall address system. The Project property is currently addressed by the County as 3330 Rosewood Lane. Utility and miscellaneous buildings (i.e. the greenhouse structures) are not required to have a separate address. The road serving the Project shall be provided with an approved street sign identifying Rosewood Lane. The installation, location and visibility of the street sign shall meet the requirements found in CCR Title 14 - Section 1274.02. Road signs shall meet the following additional criteria:

- Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.
- Sign assemblies shall be constructed of non-combustible materials.
- Sign background shall be of a reflective material and of a contrasting color to the address numbers or letters.
- Spacing between address numbers or letters shall be between ½-inch and 1-inch.
- Road signs shall be installed a minimum of 7-feet above the traveled way.

[12] CCR Title 14 – Section 1270.01 (Road Structure) includes bridges, culverts, and other appurtenant structures which supplement the traffic lane or shoulders.

- The beginning of every dead-end roadway shall have signage indicating that there is not a secondary outlet.

The new commercial building located at 3330 Rosewood Lane shall be provided with a visible address number sign on the side of the building facing the road. Address numbers shall be of a reflective material, of a contrasting color to the sign background, and with a height of not less than 8-inches and with a width of ½-inch stroke.

2.12 Local Fire Protection Capabilities

Local government fire protection and rescue services for the Project are provided by the Pioneer Fire Protection District (PIO). Wildland fire protection responsibility remains under the authority of the California Department of Forestry and Fire Protection, Amador-El Dorado-Alpine-Sacramento Ranger Unit (CAL FIRE). Emergency medical services, including ground ambulance transport, are provided to the Project under the authority of El Dorado County.

The closest fire station to the Project area is PIO Station No. 38 located at 7061 Mount Aukum Road in the Somerset community. Station 38 is approximately 6.25 miles from the Project site. Services are provided by one Type I /III fire engine staffed daily by a minimum of two full-time firefighters.

CAL FIRE operates one fire station in the south El Dorado County region to meets its wildfire suppression and prevention mission. This fire station is located at CAL FIRE Station 30 in the River Pines area and is approximately 4.5 miles from the Project. CAL FIRE staffs one state funded fire engine with a crew of 3-4 firefighters on a seasonal basis from this location.

The Project is located within an Insurance Service Office (ISO) Class 10X rating area. PIO emergency response travel times for the first arriving unit to the Project are on-average less than 10 minutes[13].

[13] Response times are based on an average 90 second turnout time by firefighters from their station plus travel time using the closest roads available to the project. The response time standard the county uses to evaluate the adequacy of the project meeting General Plan Policy 6.2.3.1 are based the closest station (Station 38) only, and not the average response times of all resources responding to an incident.

2.13 Water Supply Sources for Fire Protection

The Project is located within a rural region that is not provided with a municipal water supply system that can meet existing emergency water supply regulations[14]. The Project shall provide an immediately available water supply that is capable of providing the required fire flow for fire protection at the premise. The applicant is proposing a private water system that will store water for fire protection on-site within an aboveground water tank storage system. This system will supply a single fire-hydrant near the buildings being constructed, at a location approved by PIO.

The Project fire-flow requirement is approximately **750** gallons per minute (GPM) for a **1**-hour duration as identified in National Fire Protection Association (NFPA) Standard No. 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting", 2017 edition. This demand is based upon a construction method consistent with the California Building Standards Code for **Type II-N** construction. The required fire-flow requirements are based on the information provided in Table 3 below.

Table 3: Fire-Flow Requirements[15] for the Project Based on NFPA 1142

Building Name	Square Footage (FT^2)	Cubic Footage (FT^3)	Occupancy Hazard Class Type	Construction Type	Minimum Water Supply[16],[17]	Minimum Water Delivery Rate
Process/Manufacture	3,000	30,000	5	II-000	18,000	500
Greenhouse	14,400	201,600	5	II-000	30,000	750

The design, installation and maintenance of the water storage and delivery system for fire protection shall comply with El Dorado County Regional Fire Protection Standard No. D-003 (Water Supplies for Suburban and Rural Firefighting), except as required by the Pioneer Fire Protection District.

[14] See CCR Title 14 – Section 1275 and CCR Title 24 (Part 9) – Section 507.
[15] "Fire Flow" is the flow rate of a water supply, measured at 20 pounds per square inch (psi) residual pressure, that is available for firefighting.
[16] An exposure factor of 1.5 was added to the calculation based on the criteria found in NFPA 1142 – Section 4.3.1.
[17] The required water supply calculation for the "Greenhouse" building includes a 50% reduction due to the building being equipped with an approved automatic fire sprinkler system installed throughout.

Pioneer Fire has the following local fire code requirements for an automatic fire sprinkler system to be installed in all new commercial buildings over 3,600 square feet in size:

[A] Pioneer Fire Code Section 903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures when constructed or relocated within the jurisdiction shall be provided in the locations described in **Sections 903.2.1 through 903.2.12** [see 2.4 below] and Sections 903.2.14 through 903.2.23.

***Exception: Agricultural buildings not under a special use permit used for commercial purposes*.**

[B] Pioneer Fire Code Section 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. **A Group F-1 fire area exceeds 3,600 square feet.**

PIO requires all new commercial buildings less than 3,600 FT^2 to be equipped with an automatic fire alarm system throughout in accordance with PIO Fire Code Section 907.2.7.2.

2.14 Critical Assets / Infrastructure at Risk

The identification and analysis of Critical Assets and Infrastructure at Risk is an important part of a comprehensive fire risk analysis. This analysis also looks at potential risks associated with public service sites designated in California as being "Essential" that must conform to current seismic design criteria. Refer to *Appendix B: Critical Assets / Infrastructure at Risk Table* for additional information on the various categories of uses that have been identified within the Project area.

The Project has no proposed uses that are identified as *Critical Assets* that could be at risk during a wildfire. No *Essential Service* building uses are proposed within the Project. No *Infrastructure at Risk* site has been identified as a location within the Project area that could be adversely impacted by a wildfire.

2.15 Fire Risk Rating for the Project

The fire risk factor scoring for the Project is found in Table 4. The overall risk rating can be described as Low (0-29), Moderate (30-59), High (60-79) and Very-High (80-100). When analyzing individual fire risk factor ratings within the Project area the following terms are used:

- **LOW RISK** – Fire risk factors present typically do not support rapid fire spread.
- **MODERATE RISK** – Fire risk factors present may support moderate fire spread, but burning ember distribution is limited to less than ½ mile.
- **HIGH RISK** – Fire risk factors present may support rapid fire spread and ember distribution beyond ½ mile.
- **VERY-HIGH RISK** – Fire risk factors present may support extreme fire spread and intensity.

Table 4 provides the analysis of the fire risk rating that are specific for the Project site.

Table 4: Fire Risk Factor Rating for the Project

No.	Risk Factor	Low	Moderate	High	Very-High	Total
		0-3	4-6	7-8	9-10	
1	Fire Hazard Severity Rating			⑧		8
2	Local Fire Department Capabilities				⑨	9
3	Local Fire History			⑧		8
4	Size / Configuration of the WUI			⑧		8
5	Proximity of Structures to WUI				⑨	9
6	Building Construction Meets CBC CH 7A		⑥			6
7	Defensible Space Complies with PRC 4291			⑧		8
8	Emergency Access to WUI			⑧		8
9	Water Supply for Fire Suppression			⑧		8
10	Critical Assets / Infrastructure at Risk	①				1
	Total	1	6	48	18	73

Overall Wildfire Risk Rating: *High (60-79)*

NOTE: Two **Very High-Risk** factors are currently found within the Project area. Item 2 notes that the current fire department capability to adequately suppress structure and wildfires impacting the Project is limited. Additional fire agency resources from greater distances will be required to suppress fires on the parcel, leading to the risk that fires will expand quickly unless on-site mitigation measures such as fire sprinkler system protection or early warning fire detection are used in all buildings. Item 5 in Table 4 notes that the Project and adjoining parcel are currently within 100-feet of hazardous vegetation of the Project site, thereby placing the proposed structures at risk from ember brands and other wildfire conditions that can occur on the property.

It is important to remember that the risk factor ratings described do not infer that a community is at greater or less risk due to its overall rating. Fires can, and do, cause significant damage to property even when they occur in areas that may receive an overall low or moderate rating. Failure to maintain adequate defensible space, critical fire weather conditions and/or lack of available fire suppression resources due to other emergency incidents may cause a fire to increase its intensity and fire spread beyond the capabilities of firefighters on scene.

CHAPTER 3: FUEL REDUCTION PRACTICES

The purpose of this chapter is to describe the recommended long-term comprehensive hazardous fuel reduction management and defensible space best practices for the Project. The best practices include adequate defensible space within 100' of all buildings. This Chapter is based on California Government Code Section 51182 and California Fire Code Section 4903 and includes analysis on the following subjects:

- Defensible Space Requirements
- Defensible Space Zone Criteria
- Hazardous Fuel Reduction During Construction
- Reoccurring Hazardous Fuel Reduction Maintenance Frequency

3.1 Hazardous Fuel Reduction Regulations Applicable to the Project

Both California Public Resource Code (PRC) 4291 and County of El Dorado Code Chapter 8.09 state that property owners shall maintain a 100-feet defensible space perimeter around all structures[18]on their property if they are in proximity to forests, grasslands, or similar undeveloped areas. Defensible space on each property is the responsibility of the individual property owner, except as required by El Dorado County Code Chapter 8.09. Defensible space within the Project starts at the structure and extends out 100-feet or to the property line that faces the undeveloped area if the property line is less than 100 feet from the structure.

3.2 Hazardous Fuel Reduction Program

A *Rosewood Commercial Cannabis Operating Permit Fuel Hazardous Fuel Reduction Program*[19] shall be established to maintain defensible space for the Project and associated parcels where required by El Dorado County Code. The program should be designed to ensure the following fuel management activities are completed in a timely manner:

[18] Defensible space is required on each side, and from the front and rear, of all structures.
[19] The program includes the administration, resource types used and funding sources to apply the Fuel Management Plan described here.

a. Provide administrative oversight and coordination of fuel reduction activities within the Project area.
b. Confirm that fuel reduction activities are identified, scheduled, and completed in accordance with the Fuel Management Program.
c. Coordinate the use of resources (e.g., crews, mechanical equipment, domestic livestock, prescribed fire, etc.) that are most appropriate for the fuel reduction work that is required.
d. Ensure that sensitive biological resources within each area are identified in advance of the fuel management Project. Complete pre/post activity inspections of these areas to safeguard sensitive areas from damage and/or destruction.
e. Verify that each fuel reduction activity has sufficient fiscal resources available to it using industry best practices that are most appropriate for the Project area.
f. Ensure the safe disposal (e.g., hauling it to a landfill, chipping/mulching on site, etc.) of biomass materials removed as part of a fuel management program.

3.3 Defensible Space Requirements

The term “Defensible Space” refers to reducing the wildfire vulnerability in WUI Zones by actions that will decrease the potential of heat, flames and embers spreading to buildings. Defensible space work around buildings should be performed within 3 zone areas based on the fire risk reduction efforts necessary to protect the occupants and property.

The 3 defensible space zones around buildings are described as:

Zone 0 – Ember Resistant Zone

Zone 0 extends 5-feet from buildings, buildings, decks, etc.

The ember-resistant zone is currently not required by law, but scientific data has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks, and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to the home. The following provides guidance for this zone, which may change based on the regulation developed by the California Board of

Forestry and Fire Protection. See Figure 7 below to match the item number with the corresponding zone.

1. Use hardscape like gravel, pavers, concrete, and non-combustible mulch materials. No combustible bark or mulch.
2. Remove all dead and dying weeds, grass, plants, shrubs, trees, branches, and vegetative debris (leaves, needles, cones, bark, etc.); Check roofs, gutters, decks, porches, stairways, etc.
3. Remove all branches within 10-feet of any chimney or stovepipe outlet
4. Limit plants in this area to low growing, nonwoody, properly watered, and maintained plants.
5. Limit combustible items (outdoor furniture, planters, etc.) on top of decks
6. Relocate firewood and lumber to Zone 2
7. Replace combustible fencing, gates, and arbors attached to the home with non-combustible alternatives
8. Consider relocating garbage and recycling containers outside this zone
9. Consider relocating boats, RVs, vehicles, and other combustible items outside this zone

Zone 1 – Lean, Clean and Green Zone

Zone 1 extends 30-feet from buildings, decks, etc. or to the property line, whichever is closer.

10. Remove all dead plants, grass, and weeds (vegetation).
11. Remove dead or dry leaves and pine needles from yard, roof, and rain gutters.
12. Remove branches that hang over roof and keep dead branches 10-feet away from your chimney.
13. Trim trees regularly to keep branches a minimum of 10- feet from other trees.
14. Relocate wood piles to Zone 2.
15. Remove or prune flammable plants and shrubs near windows.
16. Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.

17. Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 – Reduce Fuel Zone

Zone 2 extends from 30-feet to 100-feet out from buildings, buildings, decks, etc. or to the property line, whichever is closer.

18. Cut or mow annual grass down to a maximum height of 4 inches.
19. All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
20. Create horizontal space between shrubs and trees. (See diagram)
21. Create vertical space between grass, shrubs, and trees. (See diagram)
22. Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.

All Zones

23. Mow before 10:00 am, but never when its windy or excessively dry.
24. Protect water quality, do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion – especially on steep slopes.
25. Logs or stumps embedded in the soil must be removed in Zone 0. In Zones 1 and 2 they need to be removed or isolated from other vegetation.

Figure 7 provides additional information on defensible zone spaces around buildings.

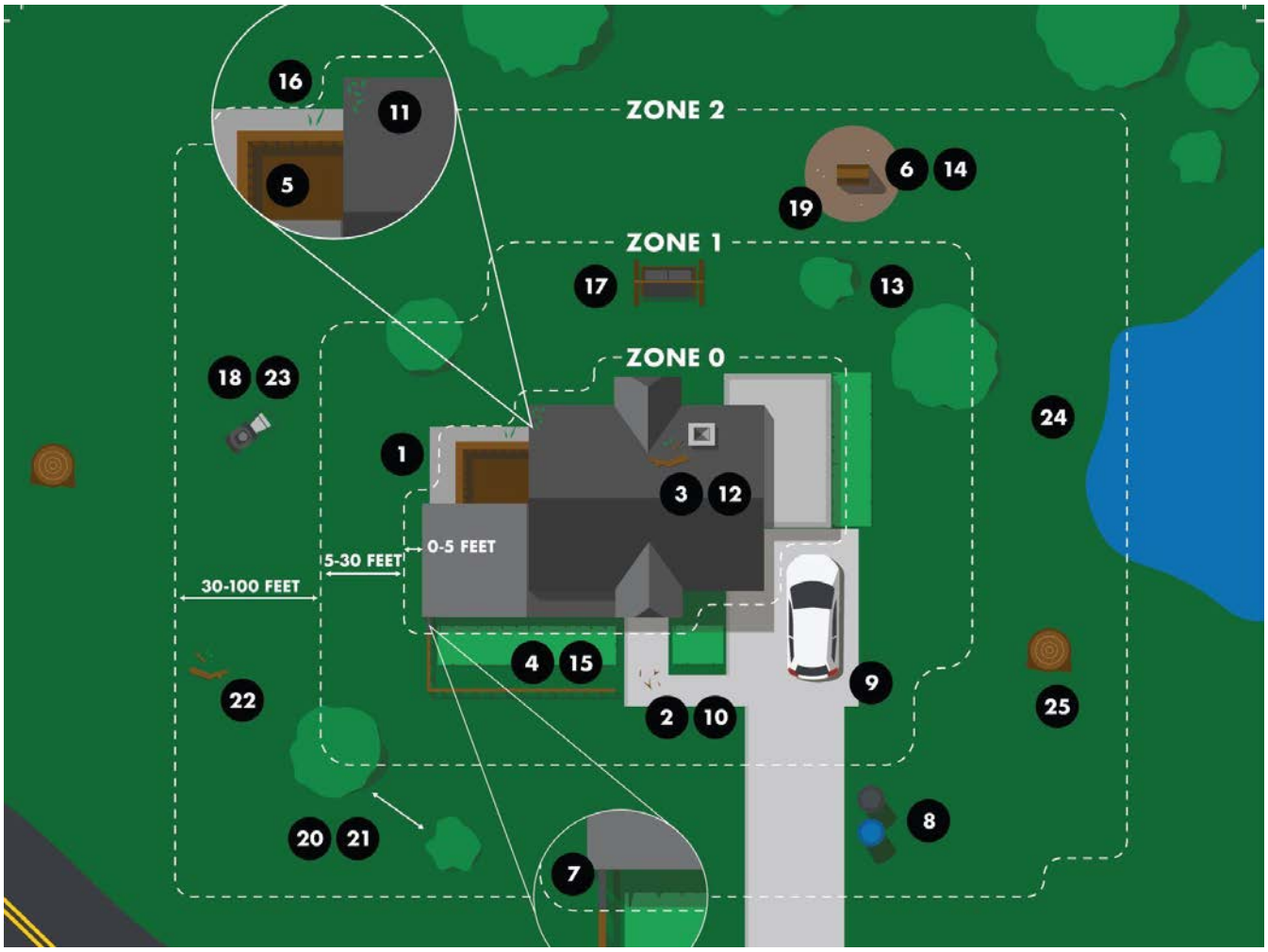

Figure 7: CAL FIRE Defensible Space Zones

3.4 Hazardous Fuel Reduction Criteria for the Project

A. Fuel reduction work shall include the mowing of annual grasses down to a height of 2-inches or less, removal of dead and diseased trees, debris, and the removal of tree limbs on live trees up to a height of 6-feet above the ground. Tree branches are to be limbed to at least 6-feet when possible. The minimum height may be lowered when trees are young or small; or if it is unsafe to reach a 6-foot height due to terrain, equipment, or skill level.

B. Understory fuels over 1-foot in height are to be removed in order to develop vertical separation and low horizontal continuity of fuels. Individual plants or pairs of plants may be retained provided there is a horizontal separation between plants of 3 to 5 times the height of the residual plants and the residual plants are not within the drip lines of an overstory tree.

C. Fuel reduction work shall include the removal of all dead vegetation 2 inches or less in diameter. Trunks shall be cut flush with the ground. The removal of additional trees shall be done in consultation with CAL FIRE and El Dorado County Planning & Building Department staff.

D. Threatened and/or endangered species may be present within the Project area. The recommendations of the Project biologist shall be implemented with respect to avoiding loss or harm to the affected species, or restoration and/or compensation measures to be undertaken if the species' habitat cannot be avoided. For example, if nesting raptors are present, the nesting tree shall not be removed and no tree removal or mechanical activity shall occur within a buffer zone established around the nest until the young have fledged. The Federal and/or State agency with jurisdiction over the affected protected species shall also be consulted.

E. Annual grasses shall be maintained below 2-inches in height just after the grasses cure in early summer. Additional fuel treatment work may be necessary throughout the year within 100-feet of structures to maintain defensible space requirements.

F. Tree snags shall be removed when they meet one or more of the following criteria:

- Snags 17-inch Diameter Breast Height (DBH) or smaller
- Snags greater than 30-feet in height
- Snags which are capable of reaching a structure
- Snags closer than 100-feet from adjoining snags.

G. The cutting of vegetation materials shall be done with CAL FIRE approved spark arrestors.

H. The removal of annual grasses and similar hazardous vegetation shall be completed through the use of plastic string weed trimmers or other PIO or CAL FIRE approved equipment.

I. Chipping of material is permitted. Chipped material shall be removed from the site unless otherwise approved by the landowner representative.

J. Prescribed burning and / or herbicide use is not allowed within the Project area unless such use is approved by the County of El Dorado, CAL FIRE and PIO.

K. Approved fire suppression equipment is required on-site at all times during the fuel-modification activities

L. All fuel reduction work shall be performed using every reasonable measure to minimize erosion, ground disturbing activities and soil damage. Where the ground is exposed by fuel reduction efforts, the area shall be revegetated and/or erosion control measures shall be installed prior to October 15.

M. Pruning on live trees shall be performed in accordance with the Best Management Practices set forth by the International Society of Arboriculture (ISA) and conform to ANSI A300 Standards for Tree Care.

N. The following tree-spacing guidelines are recommended when feasible; when not in conflict with applicable standards or codes; and after consultation with the CAL FIRE, County of El Dorado, or the respective agency representative(s):

- Intermediate Zone (5-feet to 30-feet from structures) - trees / clumps of trees should have a minimum of 18 feet between tree tops. This provision would typically include those trees on private property that extend into the open space.
- Extended Zone (30-feet to 100 feet from structures) - trees/clumps of trees should have a minimum of 12 feet between tree tops.
- Extended Zone (100-feet to 300-feet from structures) - trees/clumps of trees should have a minimum of 6 feet between tree tops.

3.5 Hazardous Fuel Reduction During Construction

Undeveloped parcels adjacent to structures, either when vacant or under construction, can pose a significant fire risk to adjacent occupied structures. To reduce the risk of wildfires spreading to nearby structures a 100-foot defensible space zone shall be established and maintained between developed parcels and adjacent undeveloped parcels or during construction activities. Construction related work such as welding and other “hot work” activities during critical fire periods can pose an increased risk of fire ignition that can lead to a significant wildfire risk. Construction activities shall conform to the current California Fire Code provision required by PIO and CAL FIRE.

3.6 Annual Hazardous Fuel Management Maintenance Frequency

The effectiveness of the Hazardous Fuel Modification program requires certain elements to be maintained on an annual or otherwise noted frequency. The coordination of fuel modification work between the property owner, PIO and CAL FIRE staff, and the adjacent land owner(s) to complete these activities in a timely fashion is imperative for the success in minimizing the wildfire risk in the Project area.

Table 5 provides additional details regarding the recommended maintenance frequency for various activities described in the Plan.

Table 5: Maintenance Frequency for Hazardous Fuel Management Work

Action Item	Party Responsible	Frequency
Remove/trim annual grasses to less than 2-inches height within 100-feet of buildings.	**Property Owner**	**Annual**
Remove debris piles, dead trees (snags) or dying trees, down trees and limbs.[20]	**Property Owner**	**Annual**
Removal of understory fuels that contribute to fire spread.	**Property Owner**	**Annual**
Action Item	**Party Responsible**	**Frequency**
Remove biomass materials from the site and dispose of in accordance with best practices.	**Property Owner**	**Annual**
Remove ladder fuels (tree limbs) to 10-foot DBH and increase tree canopy spacing.	**Property Owner**	**10 Year**

[20] This plan recognizes that dead and dying trees may provide a beneficial use for the habitat. The removal of this vegetation should be completed after an annual inspection by representatives from CAL FIRE and the Property Owner has been completed and a scope of work agreed on by both parties.

CHAPTER 4: KEY FINDINGS AND FIRE SAFE RECOMMENDATIONS

4.1 Key Findings for the Project

A. Fire and rescue services for the Project site are the responsibility of the Pioneer Fire Protection District (PIO) in accordance with California Government Code § 66474.02(a)(2)(A).

B. Wildfire protection for the adjacent undeveloped SRA lands near the Project are the responsibility of CAL FIRE.

C. The Project is located within a CAL FIRE SRA designated **High** Fire Hazard Severity Zone. The Project is therefore subject to the regulations found in California Public Resource Code Section's 4290 and 4291. See Appendix E for additional information.

D. The Project shall be subject to the wildfire regulations found in the California Building Standard Codes (California Code of Regulations Title 24, Parts 1-12).

E. The Project has an overall Fire Risk Rating of **High** based upon the ten rating criteria outlined in Chapter 4.

F. The Project has no proposed uses that are identified as Critical Assets, Essential Service Locations, or Vulnerable Populations that could be at risk during a wildfire.

G. No strategic ridgelines to reduce fire risk and improve fire protection, as described by California Code of Regulations Title 14 - §1276.02, have been identified by the Pioneer Fire Protection District within the Project or adjoining areas.

4.2 Fire Safe Recommendations for the Project

A. All commercial buildings, except as required by PIO, shall have approved 8-inch tall by ½-inch wide or larger address signage installed so as to be visible from Rosewood Lane.

B. An emergency vehicle access road shall be constructed from Derby Lane to the Project site using the Rosewood Lane easement. This access road shall comply with the following measures:

- The road shall provide a minimum of two ten (10) foot traffic lanes, not including shoulders and striping, as required by CCR Title 14 – Section 1273.01 (Width).

- The road shall provide a minimum of fifteen (15) feet unobstructed vertical clearance and a fourteen (14) feet unobstructed horizontal clearance, as required by the Pioneer Fire Code and CCR Title 14 – Section 1273.01 (c).

- The road shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and shall provide an aggregate base, as required by CCR Title 14 – Section 1273.02 (Road Surface).

- Road structures[21] shall be designed and maintained to support at least 40,000 pounds, as required by CCR Title 14 – Section 1273.02 (b).

- At no point along the road shall the grade exceed 16%, as required by CCR Title 14 – Section 1273.03 (Grades).

- No road or road structures shall have a horizontal inside radius or curvature of less than fifty (50) feet, as required by CCR Title 14 – Section 1273.04 (Radius).

- An approved turnaround shall be provided within fifty (50) feet of the commercial building and greenhouse structures as required by CCR Title 14 – Section 1273.05 (Turnarounds).

- Gated entrances across the road shall comply with the requirements described in El Dorado County Fire Chiefs Association Standard No. B-002 (Automatic & Manual Gates on Fire Access Roadways & Driveways). This document can be accessed via the

[21] CCR Title 14 – Section 1270.01 (Road Structure) includes bridges, culverts, and other appurtenant structures which supplement the traffic lane or shoulders.

following link: Fire Prevention Officers - El Dorado County Fire Chiefs association (edchiefs.org).

C. Traffic calming devices obstructing emergency vehicle access roads and driveways shall meet the design guidelines of PIO and shall require a construction permit from that agency subject to Pioneer Fire Code Section 105.6.26.

D. The Project shall provide emergency water for fire protection on-site. The design, installation and maintenance of the water storage and delivery system for fire protection shall comply with El Dorado County Regional Fire Protection Standard No. D-003 (Water Supplies for Suburban and Rural Firefighting), except as required by the Pioneer Fire Protection District.

E. The Project shall provide an immediately available water supply that is capable of providing the required fire flow for fire protection at the premise. See Section 2.13 of this plan for additional information regarding the design criteria for the Project water system.

F. The Project shall be constructed and maintained in accordance with the current design standards found in *California Building Code (CBC) Chapter 7A* (**Materials and Construction Methods for Exterior Wildfire Exposure**).

G. All commercial buildings within the Project shall have either an approved automatic fire sprinkler system or an approved Automatic Fire Alarm System installed within them as required by either Pioneer Fire Code Section 903.2 and 907.2.7.2.

H. A Rosewood Commercial Cannabis Operating Permit Hazardous Fuel Management program shall be established to ensure that all hazardous fuel reduction efforts, including creating and maintaining defensible space near each building in the Project, is completed annually or more frequently as determined by PIO and CAL FIRE. See Chapter 3 of this plan for additional details.

I. Undeveloped areas within the Project shall have all hazardous fuels, including annual grasses and dead vegetation, removed and/or maintained in accordance with the provisions outlined in Chapter 3 of this plan.

J. The Project shall remove all Grey Pine Trees within 100-feet of all structures constructed within the Project.

K. The Project shall remove all Oak Trees and other plant species within 5-feet of all proposed structure locations.

L. The Project shall avoid the use of certain highly flammable trees and vegetation within 100-feet of buildings and structures as identified in Appendix G of this Plan.

Chapter 5: PLAN APPENDIXES

Appendix A: Glossary of Terms

Biomass – Refers to "green waste" materials generated during the defensible space clearing Project. This includes grass, weeds, and tree trimming materials.

CAL FIRE – Refers to the California Department of Forestry and Fire Protection.

CWPP – Refers to the El Dorado County Community Wildfire Protection Plan (2012).

Defensible Space – Is the design and maintenance of natural and/or landscaped areas in an area where mitigation actions are undertaken to reduce structure loss from a wildfire. It is also intended to provide access to firefighters for fire suppression actions and to provide a safe zone for them to work. Defensible space is based on four general concepts:

1. Elimination of combustible vegetation and other materials within 5' of the structure.
2. Fuel removal or reduction within 100' of structures in all directions
3. Thinning, pruning and removal of continues and dense uninterrupted layers of vegetation
4. Removal of ladder fuels within 8'-10' from the ground to prevent fire spread through tree canopies.

Pioneer Fire Protection District (PIO) – PIO provides year-round, all-hazard fire and emergency services to over 9,000 residents and provides fire and emergency medical services in the Mt. Aukum, Grizzly Flat, Somerset, Outingdale, Fairplay, and Omo Ranch communities. PIO utilizes a mix of full-time salaried staff, part-time hourly staff, and volunteers to operate its seven fire stations.

Evacuation Order – Refers to a situation involving an immediate threat to life. This is a lawful order to leave now. The area is lawfully closed to public access.

Evacuation Warning – Refers to a potential threat to life and/or property. Those who require additional time to evacuate, and those with pets and livestock should leave now.

Fire Hazard – Is the dangerous accumulation of flammable fuels in open space areas and other wildland urban interface areas. It is typically described at the landscape (area) level. Usually referring to the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fires intensity or rate of spread. Fire hazard is based on the vegetation types likely to be present over the next 50 years that contribute to fire severity and ember production, the topography of the area and the average fire weather conditions present in the area.

Fire Risk – Is the potential damage a fire can due to buildings, critical assets/infrastructure, and other values at risk in individual open space areas and other wildland urban interface areas. Fire risk does consider modification that may affect susceptibility of property to damage such as defensible space, fire sprinkler systems and building construction that can reduce the risk of burning embers igniting buildings. Fire hazard does not equal fire risk but is an important factor in determining fire risk.

Hazardous Fuel Reduction – Refers to the reduction of wildfire fuels such as trees, shrubbery, grasses, and other natural materials to decrease risks to human life and damage to personal property. Hazardous fuel reduction result in less extreme fire behavior and intensity through decreased fire spread rates and reduced flame lengths.

Improved Parcel – A portion of land determined by the County Assessor's Office to contain a dwelling (occupied or unoccupied).

Shelter in Place – Is a strategy in which the individual(s) goes indoors, shut and lock doors and windows. They prepare to self-sustain until further notice and/or contacted by emergency personnel for additional direction.

Snag – Refers to a dead or partly dead tree that is still standing.

Survivable Space – Is similar in concept to defensible space, except it emphasizes the house surviving a wildfire without significant firefighter or homeowner assistance.

Temporary Refuge Area – A gathering point for residents if they are temporarily evacuated from their residence, or when evacuation routes are obstructed by smoke, incoming emergency equipment, or directly threatened by fire.

Unimproved Parcel – A portion of land of any size, the area of which is determined by the County Assessor's Office maps and records and which may be identified by the Assessor Parcel Number, upon which no dwelling is located.

Wildland fire – Describes an unplanned and uncontrolled fire spreading through vegetative fuels, including any structures or other improvements thereon.

Wildland Urban Interface Zone – Describes locations in which the local fire warden determines the topographical features, vegetation fuel types, local weather conditions, and prevailing winds can result in the potential for ignition of the structures within the area from flames and firebrands of a wildland fire.

Appendix B: Critical Assets / Populations at Risk Table

Facility Type	Essential Service	Population at Risk	Infrastructure at Risk	Facility Count
Fire Station	X			0
Police Station	X			0
Emergency Evacuation Shelter*	X			0
Government Facilities	X			0
General Acute Care Hospital	X			0
Medical Health Facility		X		0
Adult Residential Care Facility		X		0
Child Care Facility		X		0
Adult Care Facility		X		0
Public Elementary School		X		0
Private Elementary School		X		0
Public Middle School		X		0
Private Middle School		X		0
Public High School		X		0
Private High School		X		0
College / University		X		0
Vulnerable Population Centers**		X		0
Water Treatment Plant			X	0
Water Storage Facility			X	0
Water Conveyance System			X	0
Electrical Transmission Lines			X	0
Electrical Substation			X	0
Sewer Lift Station			X	0
Telecommunications Facilities			X	0
Corporation Yard				0
* Includes General Population, Access/Functional Needs Shelters, and Animal Shelters				
** Includes Disadvantaged, Disabled and Low-Income Census Areas				

Appendix C: PRC 4290 and 4291 Checklist

Project Name:				
	CCR Title 14	**Conforms**	**Does Not Conform**	**N/A**
Safe Access and Egress				
Road Width	§1273.01	X		
Roadway Surface	§1273.02	X		
Road Grades	§1273.03	X		
Road Radius	§1273.04	X		
Road Turnarounds	§1273.05	X		
Road Turnouts	§1273.06			X
Road and Driveway Structures	§1273.07	X		
Dead-end Roads	§1273.08	X		
Gate Entrances	§1273.09			X
Signing and Building Numbering				
Road Name Signs	§1274.01	X		
Road Sign Installation	§1274.02	X		
Addresses for Buildings	§1274.03	X		
Address Installation, Location	§1274.04			X
Fire Water Standards				
Application	§1275.01	X		
Approved Fire Water Supply	§1275.02	X		
Hydrants	§1275.03	X		
Signing of Water Sources	§1275.04	X		
Building Siting and Fuel Mod.				
Building and Parcel Siting/Setbacks	§1276.01	X		
Ridgelines	§1276.02			X
Fuel Breaks	§1276.03			X
Greenbelts, Open Spaces	§1276.04			X
Disposal of Flammable Vegetation	§1276.05			X

NOTES:

1. See Section 4.2 (Fire Safe Recommendations) regarding proposed mitigation measures.

Appendix D: Emergency Evacuation Planning Checklist

No.	Risk Factor	Yes	No	Unknown
1	Existing Evacuation Plan is Current?			X
2	General Population Shelters Identified?			X
3	Special Care Shelters Identified?			X
4	Animal Care Shelters Identified?			X
5	Temporary Safe Refuge Areas Identified?			X
6	Emergency Evacuation Routes Identified?			X
7	Mass Notification System Identified/Used?			X
8	Ready-Set-Go or Similar Program Used?			X
9	Evacuation Plans Available to the Public?			X
10	Are First Responders Briefed on the Plan?			X
	Total	0	0	10

Notes:

1. Project is located in El Dorado County. A search of public websites did not identify an existing evacuation plan for this area.

2-4. El Dorado County OES has no pre-designated emergency shelters throughout the County during prior large-scale emergencies.

5-6. There are no reported temporary refuge areas identified in the Project area.

7. El Dorado County OES uses *RAVE* as its emergency notification system. The system relies on notifications through existing telephone lines and through "opt-in" sign-ups for cell phones and other devices.

8-10. A search of public websites did not identify R-S-G materials, evacuation plans for the Project area or information that first responders are briefed on the evacuation planning efforts. All of this information will be made available in the Project area through handout materials distributed to both members of the public and first responders.

Appendix E: California Code of Regulations Title 14 §1270-1276

UNOFFICIAL COPY

State Minimum Fire Safe Regulations

Board of Forestry and Fire Protection

FOR INFORMATIONAL USE ONLY
View the official California Code of Regulations online at govt.westlaw.com/calregs

As of April 1, 2023

California Code of Regulations
Title 14 Natural Resources
Division 1.5 Department of Forestry
Chapter 7 - Fire Protection
Subchapter 2 State Minimum Fire Safe Regulations
Articles 1-5

Contents

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Article 1 Administration

§ 1270.00. Title

Subchapter 2 shall be known as the “State Minimum Fire Safe Regulations,” and shall constitute the minimum Wildfire protection standards of the California Board of Forestry and Fire Protection.

§ 1270.01. Definitions

The following definitions are applicable to Subchapter 2.
(a) Agriculture: Land used for agricultural purposes as defined in a Local Jurisdiction's zoning ordinances.
(b) Board: California Board of Forestry and Fire Protection.
(c) Building: Any Structure used or intended for supporting or sheltering any use or Occupancy, except those classified as Utility and Miscellaneous Group U.
(d) CAL FIRE: California Department of Forestry and Fire Protection.
(e) Dead-end Road: A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and Roads that loop back on themselves
(f) Defensible Space: The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping Structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical Structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, Road names and Building identification, and fuel modification measures.
(g) Development: As defined in section 66418.1 of the California Government Code.
(h) Director: Director of the Department of Forestry and Fire Protection or their designee.
(i) Driveway: A vehicular pathway that serves no more than four (4) Residential Units and any number of non-commercial or non-industrial Utility or Miscellaneous Group U Buildings on each parcel. A Driveway shall not serve commercial or industrial uses at any size or scale.
(j) Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.
(k) Fire Apparatus: A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support emergency response, including but not limited to the suppression of fires.
(l) Fire Authority: A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards in the Local Jurisdiction.
(m) Fire Hydrant: A valved connection on a water supply or storage system for the purpose of providing water for fire protection and suppression operations.
(n) Fuel Break: A strategically located area where the volume and arrangement of vegetation has been managed to limit fire intensity, fire severity, rate of spread, crown fire potential, and/or ember production.
(o) Greenbelts: open space, parks, wildlands, other areas, or a combination thereof, as designated by Local Jurisdictions, which are in, surround, or are adjacent to a city or urbanized area, that may function as Fuel Breaks and where Building construction is restricted or prohibited.
(p) Greenways: Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.

(q) Hammerhead/T: A "T" shaped, three-point Turnaround space for Fire Apparatus on a Road or Driveway, being no narrower than the Road or Driveway that serves it.
(r) Hazardous Land Use: A land use that presents a significantly elevated potential for the ignition, prolonged duration, or increased intensity of a Wildfire due to the presence of flammable materials, liquids, or gasses, or other features that initiate or sustain combustion. Such uses are determined by the Local Jurisdiction and may include, but are not limited to, power-generation and distribution facilities; wood processing or storage sites; flammable gas or liquids processing or storage sites; or shooting ranges.
(s) Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that approves or has the authority to regulate Development.
(t) Municipal-Type Water System: A system having water pipes servicing Fire Hydrants and designed to furnish, over and above domestic consumption, a minimum of 250 gpm (950 L/min) at 20 psi (138 kPa) residual pressure for a two (2) hour duration.
(u) Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.
(v) One-way Road: A Road that provides a minimum of one Traffic Lane width designed for traffic flow in one direction only.
(w) Residential Unit: Any Building or portion thereof which contains living facilities including provisions for sleeping, eating, cooking and/or sanitation, for one or more persons. Manufactured homes, mobile homes, and factory-built housing are considered Residential Units.
(x) Ridgeline: The line of intersection of two opposing slope aspects running parallel to the long axis of the highest elevation of land; or an area of higher ground separating two adjacent streams or watersheds.
(y) Road: A public or private vehicular pathway to more than four (4) Residential Units, or to any industrial or commercial Occupancy.
(z) Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the Traffic Lane or Shoulders.
(aa) Same Practical Effect: As used in this subchapter, means an Exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:

(1) access for emergency wildland fire equipment,
(2) safe civilian evacuation,
(3) signing that avoids delays in emergency equipment response,
(4) available and accessible water to effectively attack Wildfire or defend a Structure from Wildfire, and
(5) fuel modification sufficient for civilian and fire fighter safety.

(bb) Shoulder: A vehicular pathway adjacent to the Traffic Lane.
(cc) State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.
§(ee) Structure: That which is built or constructed or any piece of work artificially built up or composed of parts joined together in some definite manner.
(ff) Traffic Lane: The portion of a Road or Driveway that provides a single line of vehicle travel.
(gg) Turnaround: An area which allows for a safe opposite change of direction for Fire Apparatus at the end of a Road or Driveway.
(hh) Turnout: A widening in a Road or Driveway to allow vehicles to pass.

(ii) Undeveloped Ridgeline: A Ridgeline with no Buildings.
(jj) Utility and Miscellaneous Group U: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.
(kk) Vertical Clearance: The minimum specified height of a bridge, overhead projection, or vegetation clearance above the Road or Driveway.
(*ll*) Vertical Curve: A curve at a high or low point of a Road that provides a gradual transition between two Road grades or slopes.
(mm) Very High Fire Hazard Severity Zone (VHFHSZ): As defined in Government Code section 51177(i).
(nn) Wildfire: Has the same meaning as "forest fire" in Public Resources Code Section 4103.

§ 1270.02. Purpose

(a) Subchapter 2 has been prepared and adopted for the purpose of establishing state minimum Wildfire protection standards in conjunction with Building, construction, and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones, as defined in Government Code § 51177(i) (VHFHSZ).
(b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.
(c) These standards shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; vegetation modification, Fuel Breaks, Greenbelts, and measures to preserve Undeveloped Ridgelines. Subchapter 2 specifies the minimums for such measures.

§ 1270.03. Scope

(a) Subchapter 2 shall apply to:
(1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection (b).
(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971;
(3) all tentative and parcel maps or other Developments approved after January 1, 1991; and
(4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel or tentative map.
(b) Subchapter 2 does not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the Buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.
(c) Affected activities include, but are not limited to:
(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);
(2) application for a Building permit for new construction not relating to an existing Structure;

(3) application for a use permit;
(4) Road construction including construction of a Road that does not currently exist, or extension of an existing Road.

(d) The standards in Subchapter 2 applicable to Roads shall not apply to Roads used solely for Agriculture; mining; or the management of timberland or harvesting of forest products.

§ 1270.04. Provisions for Application of these Regulations

This Subchapter shall be applied as follows:

(a) the Local Jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for Building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or Development within the SRA, or if after July, 1 2021, the VHFHSZ.

(b) the Director or their designee may review and make fire protection recommendations on applicable construction or development permits or maps provided by the Local Jurisdiction.

(c) the Local Jurisdiction shall ensure that the applicable sections of this Subchapter become a condition of approval of any applicable construction or Development permit or map.

§ 1270.05. Local Regulations

(a) Subchapter 2 shall serve as the minimum Wildfire protection standards applied in SRA and VHFHSZ. However, Subchapter 2 does not supersede local regulations which equal or exceed the standards of this Subchapter.

(b) A local regulation equals or exceeds a minimum standard of this Subchapter only if, at a minimum, the local regulation also fully complies with the corresponding minimum standard in this Subchapter.

(c) A Local Jurisdiction shall not apply exemptions to Subchapter 2 that are not enumerated in Subchapter 2. Exceptions requested and approved in conformance with § 1270.07 (Exceptions to Standards) may be granted on a case-by-case basis.

(d) Notwithstanding a local regulation that equals or exceeds the State Minimum Fire Safe Regulations, Building construction shall comply with the State Minimum Fire Safe Regulations.

§ 1270.06. Inspections

Inspections shall conform to the following requirements:

(a) Inspections in the SRA shall be made by:
(1) the Director, or
(2) Local Jurisdictions that have assumed state fire protection responsibility on SRA lands, or
(3) Local Jurisdictions where the inspection duties have been formally delegated by the Director to the Local Jurisdictions, pursuant to subsection (b).

(b) The Director may delegate inspection authority to a Local Jurisdiction subject to all of the following criteria:
(1) The Local Jurisdiction represents that they have appropriate resources to perform the delegated inspection authority.
(2) The Local Jurisdiction acknowledges that CAL FIRE's authority under subsection (d) shall not be waived or restricted.
(3) The Local Jurisdiction consents to the delegation of inspection authority.
(4) The Director may revoke the delegation at any time.
(5) The delegation of inspection authority, and any subsequent revocation of the delegation, shall be documented in writing, and retained on file at the CAL FIRE Unit headquarters that administers SRA fire protection in the area.

(c) Inspections in the VHFHSZ shall be made by the Local Jurisdiction.

(d) Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws in the SRA even when the inspection duties have been delegated pursuant to this section.
(e) Reports of violations within the SRA shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the Local Jurisdiction.
(f) When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of Occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or Building permit.

§ 1270.07. Exceptions to Standards

(a) Upon request by the applicant, an Exception to standards within this Subchapter may be allowed by the Inspection entity in accordance with 14 CCR § 1270.06 (Inspections) where the Exceptions provide the Same Practical Effect as these regulations towards providing Defensible Space. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06, shall be made on a case-by-case basis only. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06 shall be forwarded to the appropriate CAL FIRE unit headquarters that administers SRA fire protection in that Local Jurisdiction, or the county in which the Local Jurisdiction is located and shall be retained on file at the Unit Office.
(b) Requests for an Exception shall be made in writing to the Local Jurisdiction listed in 14 CCR § 1270.06 by the applicant or the applicant's authorized representative.
At a minimum, the request shall state the specific section(s) for which an Exception is requested; material facts supporting the contention of the applicant; the details of the Exception proposed; and a map showing the proposed location and siting of the Exception. Local Jurisdictions listed in § 1270.06 (Inspections) may establish additional procedures or requirements for Exception requests.
(c) Where an Exception is not granted by the inspection entity, the applicant may appeal such denial to the Local Jurisdiction. The Local Jurisdiction may establish or utilize an appeal process consistent with existing local building or planning department appeal processes.
(d) Before the Local Jurisdiction makes a determination on an appeal, the inspector shall be consulted and shall provide to that Local Jurisdiction documentation outlining the effects of the requested Exception on Wildfire protection.
(e) If an appeal is granted, the Local Jurisdiction shall make findings that the decision meets the intent of providing Defensible Space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in that Local Jurisdiction.

§ 1270.08. Distance Measurements

All specified or referenced distances are measured along the ground, unless otherwise stated.

Article 2 Ingress and Egress

§ 1273.00. Intent

Roads, and Driveways, whether public or private, unless exempted under 14 CCR § 1270.03(d), shall provide for safe access for emergency Wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a Wildfire emergency consistent with 14 CCR §§ 1273.00 through 1273.09.

§ 1273.01. Width.

(a) All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other standards are provided in this article or additional requirements are mandated by Local Jurisdictions or local subdivision requirements. Vertical clearances shall conform to the requirements in California Vehicle Code section 35250.

(b) All One-way Roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including Shoulders. The Local Jurisdiction may approve One-way Roads.

(1) All one-way roads shall, at both ends, connect to a road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) Residential Units.

(2) In no case shall a One-way Road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each One-way Road.

(c) All driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13′ 6″).

§ 1273.02. Road Surface

(a) Roads shall be designed and maintained to support the imposed load of Fire Apparatus weighing at least 75,000 pounds, and provide an aggregate base.

(b) Road and Driveway Structures shall be designed and maintained to support at least 40,000 pounds.

(c) Project proponent shall provide engineering specifications to support design, if requested by the Local Jurisdiction.

§ 1273.03. Grades

(a) At no point shall the grade for all Roads and Driveways exceed 16 percent.

(b) The grade may exceed 16%, not to exceed 20%, with approval from the Local Jurisdiction and with mitigations to provide for Same Practical Effect.

§ 1273.04. Radius

(a) No Road or Road Structure shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.

(b) The length of vertical curves in Roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

§ 1273.05. Turnarounds

(a) Turnarounds are required on Driveways and Dead-end Roads.

(b) The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the figures in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is used instead, the top of the "T" shall be a minimum of sixty (60) feet in length.
(c) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the Driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
(d) A turnaround shall be provided on Driveways over 300 feet in length and shall be within fifty (50) feet of the building.
(d) Each Dead-end Road shall have a turnaround constructed at its terminus. Where parcels are zoned five (5) acres or larger, turnarounds shall be provided at a maximum of 1,320 foot intervals.
(e) Figure A. Turnarounds on roads with two ten-foot traffic lanes.
Figure A/Image 1 on the left is a visual representation of paragraph (b).
(f) Figure B. Turnarounds on driveways with one ten-foot traffic lane.
Figure B/Image 2 on the right is a visual representation of paragraph (b).

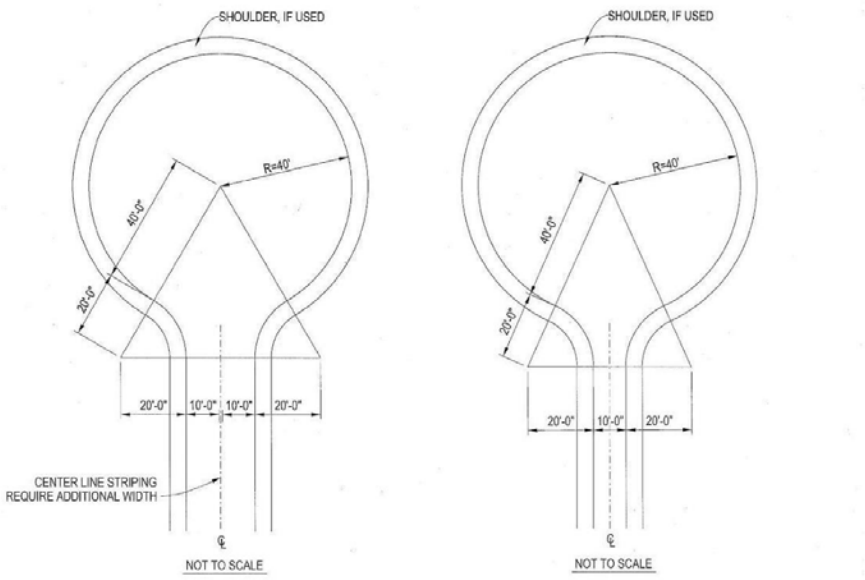


FIGURE FOR 14 CCR § 1273.05. TURNAROUND EXAMPLES

§ 1273.06. Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

§ 1273.07. Road and Driveway Structures

(a) Appropriate signing, including but not limited to weight or vertical clearance limitations, One-way Road or single traffic lane conditions, shall reflect the capability of each bridge.
(b) Where a bridge or an elevated surface is part of a Fire Apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and

Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction.
(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.
(d) A bridge with only one traffic lane may be authorized by the Local Jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

§ 1273.08. Dead-end Roads

(a) The maximum length of a Dead-end Road, including all Dead-end Roads accessed from that Dead-end Road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

parcels zoned for less than one acre - 800 feet
parcels zoned for 1 acre to 4.99 acres - 1,320 feet
parcels zoned for 5 acres to 19.99 acres - 2,640 feet
parcels zoned for 20 acres or larger - 5,280 feet

All lengths shall be measured from the edge of the Road surface at the intersection that begins the Road to the end of the Road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes requiring different length limits, the shortest allowable length shall apply.
(b) See 14 CCR § 1273.05 for dead-end road turnaround requirements.

§ 1273.09. Gate Entrances

(a) Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of thirteen feet, six inches (13′ 6″).
(b) All gates providing access from a Road to a Driveway shall be located at least thirty (30) feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that Road.
(c) Where a One-way Road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used.
(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

Article 3 Signing and Building Numbering

§ 1274.00. Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved Roads and Buildings shall be designated by names or numbers posted on signs clearly visible and legible from the Road. This section shall not restrict the size of letters or numbers appearing on road signs for other purposes.

§ 1274.01. Road Signs.

(a) Newly constructed or approved Roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each Local Jurisdiction. This section does not require any entity to rename or renumber existing roads, nor shall a Road providing access only to a single commercial or industrial Occupancy require naming or numbering.
(b) The size of letters, numbers, and symbols for Road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background color of the sign.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.
(b) Signs required by this article identifying intersecting Roads shall be placed at the intersection of those Roads.
(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end roads, one-way roads, or single lane conditions, shall be placed:

(1) at the intersection preceding the traffic access limitation, and
(2) no more than one hundred (100) feet before such traffic access limitation.

(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

§ 1274.03. Addresses for Buildings.

(a) All Buildings shall be issued an address by the Local Jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U Buildings are not required to have a separate address; however, each Residential Unit within a Building shall be separately identified.
(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.
(c) Addresses for residential Buildings shall be reflectorized.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All buildings shall have a permanently posted address which shall be plainly legible and visible from the Road fronting the property.
(b) Where access is by means of a private Road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.
(c) Address signs along one-way Roads shall be visible from both directions.
(d) Where multiple addresses are required at a single driveway, they shall be mounted on a single sign or post.

(e) Where a Road provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest Road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.
(f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Article 4 Emergency Water Standards

§ 1275.00. Intent

Emergency water for Wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a Wildfire or defend property from a Wildfire.

§ 1275.01. Application

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the Local Jurisdiction.

§ 1275.02. Water Supply.

(a) When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the Local Jurisdiction.
(b) Water systems equaling or exceeding the California Fire Code, California Code of Regulations title 24, part 9, or, where a municipal-type water supply is unavailable, National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting," 2017 Edition, hereby incorporated by reference, shall be accepted as meeting the requirements of this article.
(c) Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man made containment structure, as long as the specified quantity is immediately available.
(d) Nothing in this article prohibits the combined storage of emergency Wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.
(e) Where freeze or crash protection is required by Local Jurisdictions, such protection measures shall be provided.

§ 1275.03. Hydrants and Fire Valves.

(a) The hydrant or fire valve shall be eighteen (18) inches above the finished surface. Its location in relation to the road or driveway and to the building(s) or structure(s) it serves shall comply with California Fire Code, California Code of Regulations title 24, part 9, Chapter 5, and Appendix C.
(b) The hydrant head shall be a two and half (2 1/2) inch National Hose male thread with cap for pressure and gravity flow systems and four and a half (4 1/2) inch for draft systems.
(c) Hydrants shall be wet or dry barrel and have suitable freeze or crash protection as required by the local jurisdiction.
§ 1275.04. Signing of Water Sources.
(a) Each hydrant, fire valve, or access to water shall be identified as follows:
(1) if located along a driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the driveway address sign and mounted on a fire retardant post, or
(2) if located along a road,

(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said hydrant or fire valve, with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

§ 1275.04. Signing of Water Sources.

(a) Each Fire Hydrant or access to water shall be identified as follows:
(1) if located along a Driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the Driveway address sign and mounted on a fire retardant post, or
(2) if located along a Road,
(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said Fire Hydrant with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the Driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Article 5 Building Siting, Setbacks, and Fuel Modification

§ 1276.00 Intent

To reduce the intensity of a Wildfire, reducing the volume and density of flammable vegetation around Development through strategic fuel modification, parcel siting and Building setbacks, and the protection of Undeveloped Ridgelines shall provide for increased safety for emergency fire equipment, including evacuating civilians, and a point of attack or defense from a Wildfire.

§ 1276.01. Building and Parcel Siting and Setbacks

(a) All parcels shall provide a minimum thirty (30) foot setback for all Buildings from all property lines and/or the center of a Road, except as provided for in subsection (b).
(b) A reduction in the minimum setback shall be based upon practical reasons, which may include but are not limited to, parcel dimensions or size, topographic limitations, Development density requirements or other Development patterns that promote low-carbon emission outcomes; sensitive habitat; or other site constraints, and shall provide for an alternative method to reduce Structure-to-Structure ignition by incorporating features such as, but not limited to:
(1) non-combustible block walls or fences; or
(2) non-combustible material extending five (5) feet horizontally from the furthest extent of the Building; or
(3) hardscape landscaping; or
(4) a reduction of exposed windows on the side of the Structure with a less than thirty (30) foot setback; or
(5) the most protective requirements in the California Building Code, California Code of Regulations Title 24, Part 2, Chapter 7A, as required by the Local Jurisdiction.

§ 1276.02. Ridgelines

(a) The Local Jurisdiction shall identify Strategic Ridgelines, if any, to reduce fire risk and improve fire protection through an assessment of the following factors:

(1) Topography;

(2) Vegetation;

(3) Proximity to any existing or proposed residential, commercial, or industrial land uses;

(4) Construction where mass grading may significantly alter the topography resulting in the elimination of Ridgeline fire risks;

(5) Ability to support effective fire suppression; and

(6) Other factors, if any, deemed relevant by the Local Jurisdiction.

(b) Preservation of Undeveloped Ridgelines identified as strategically important shall be required pursuant to this section.

(c) New Buildings on Undeveloped Ridgelines identified as strategically important are prohibited, as described in subsections (c)(1), (c)(2), and (c)(3).

(1) New Residential Units are prohibited within or at the top of drainages or other topographic features common to Ridgelines that act as chimneys to funnel convective heat from Wildfires.

(2) Nothing in this subsection shall be construed to alter the extent to which utility infrastructure, including but not limited to wireless telecommunications facilities, as defined in Government Code section 65850.6, subdivision (d)(2), or Storage Group S or Utility and Miscellaneous Group U Structures, may be constructed on Undeveloped Ridgelines.

(3) Local Jurisdictions may approve Buildings on Strategic Ridgelines where Development activities such as mass grading will significantly alter the topography that results in the elimination of Ridgeline fire risks.

(d) The Local Jurisdiction may implement further specific requirements to preserve Undeveloped Ridgelines.

§ 1276.03. Fuel Breaks

(a) When Building construction meets the following criteria, the Local Jurisdiction shall determine the need and location for Fuel Breaks in consultation with the Fire Authority:

(1) the permitting or approval of three (3) or more new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d); or

(2) an application for a change of zoning increasing zoning intensity or density; or

(3) an application for a change in use permit increasing use intensity or density.

(b) Fuel Breaks required by the Local Jurisdiction, in consultation with the Fire Authority, shall be located, designed, and maintained in a condition that reduces the potential of damaging radiant and convective heat or ember exposure to Access routes, Buildings, or infrastructure within the Development.

(c) Fuel Breaks shall have, at a minimum, one point of entry for fire fighters and any Fire Apparatus. The specific number of entry points and entry requirements shall be determined by the Local Jurisdiction, in consultation with the Fire Authority.

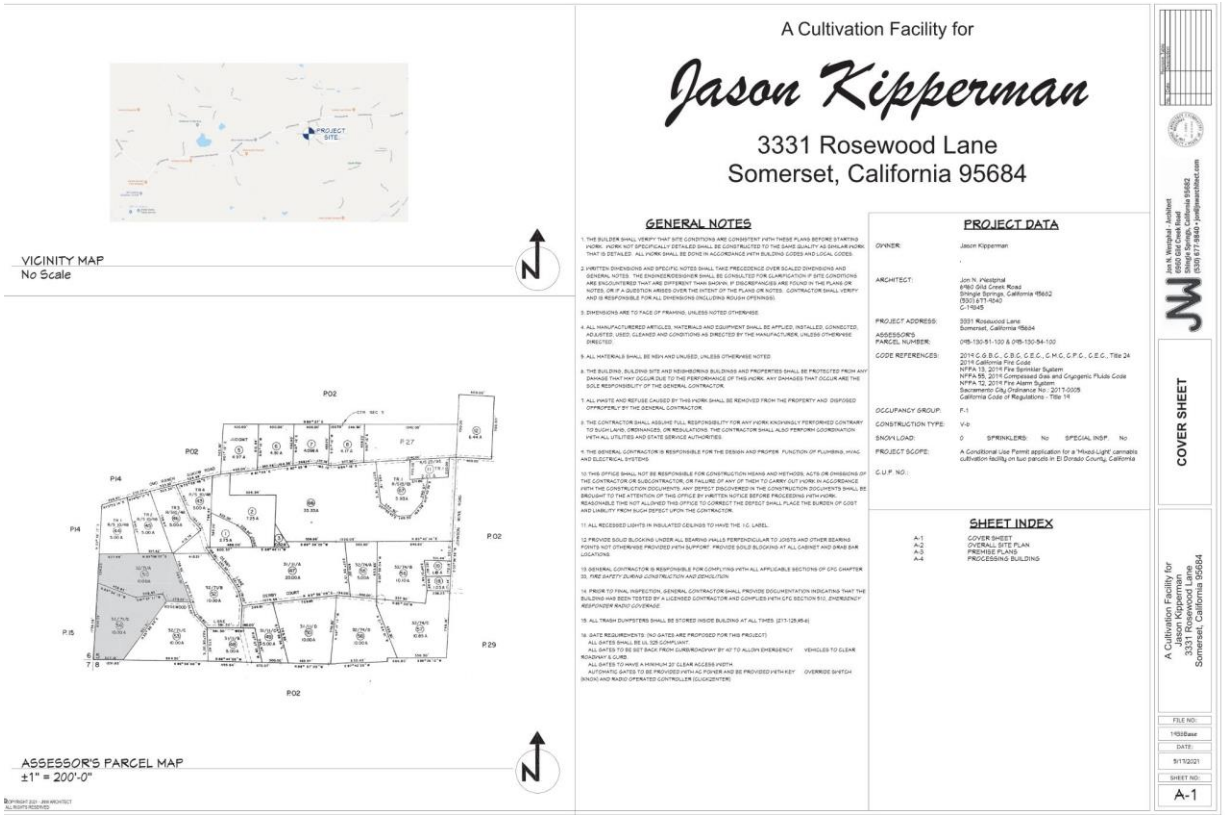
(d) Fuel Breaks may be required at locations such as, but not limited to:

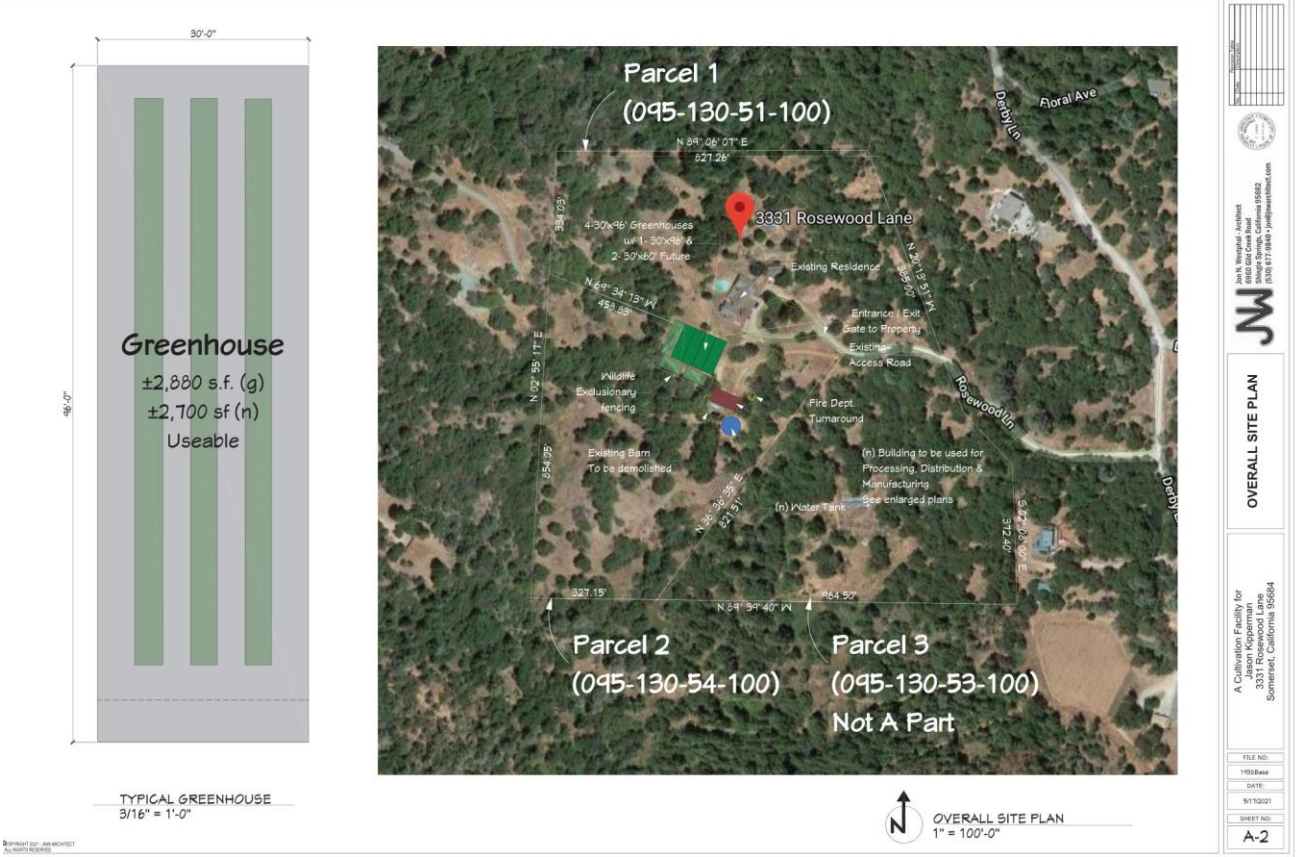
(1) Directly adjacent to defensible space as defined by 14 CCR § 1299.02 to reduce radiant and convective heat exposure, ember impacts, or support fire suppression tactics;

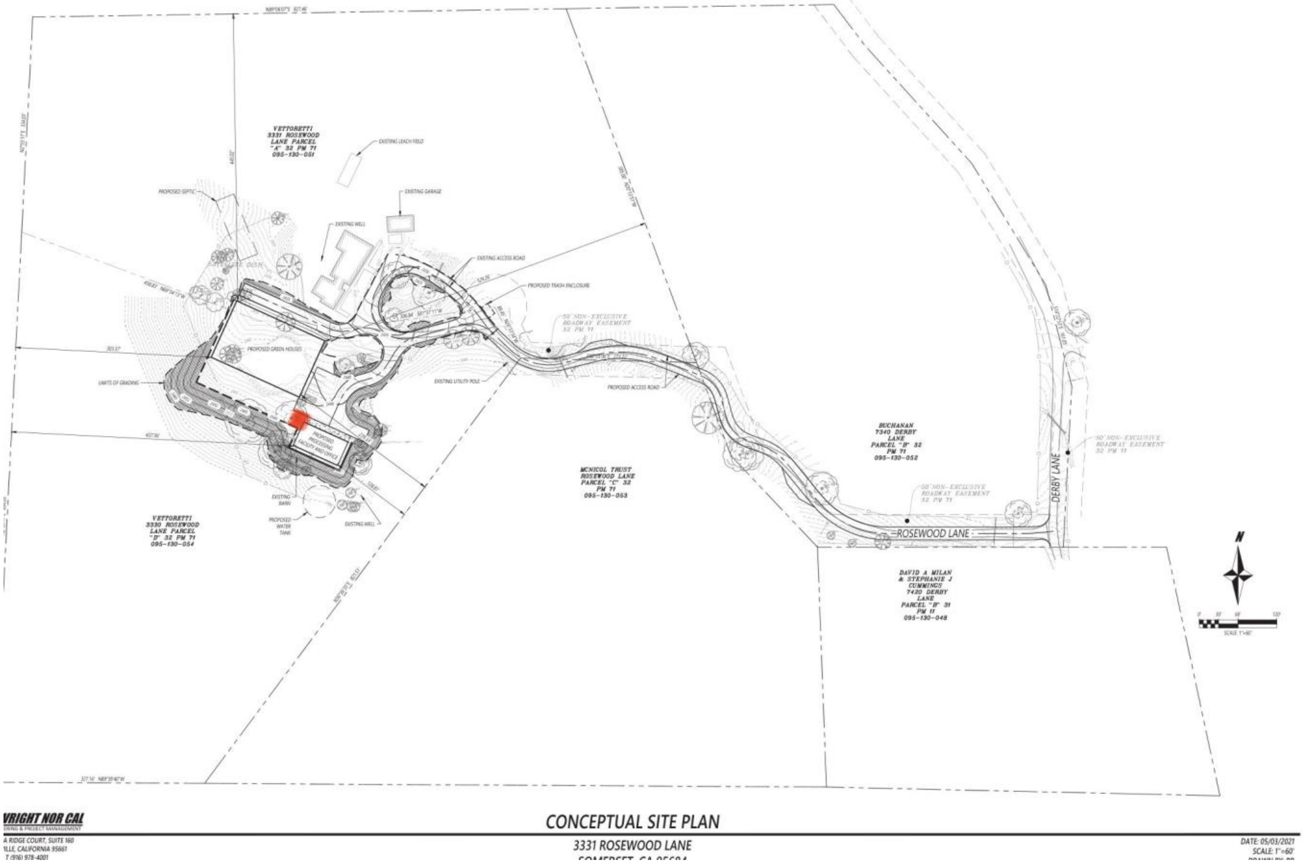
(2) Directly adjacent to Roads to manage radiant and convective heat exposure or ember impacts, increase evacuation safety, or support fire suppression tactics;

(3) Directly adjacent to a Hazardous Land Use to limit the spread of fire from such uses, reduce radiant and convective heat exposure, or support fire suppression tactics;

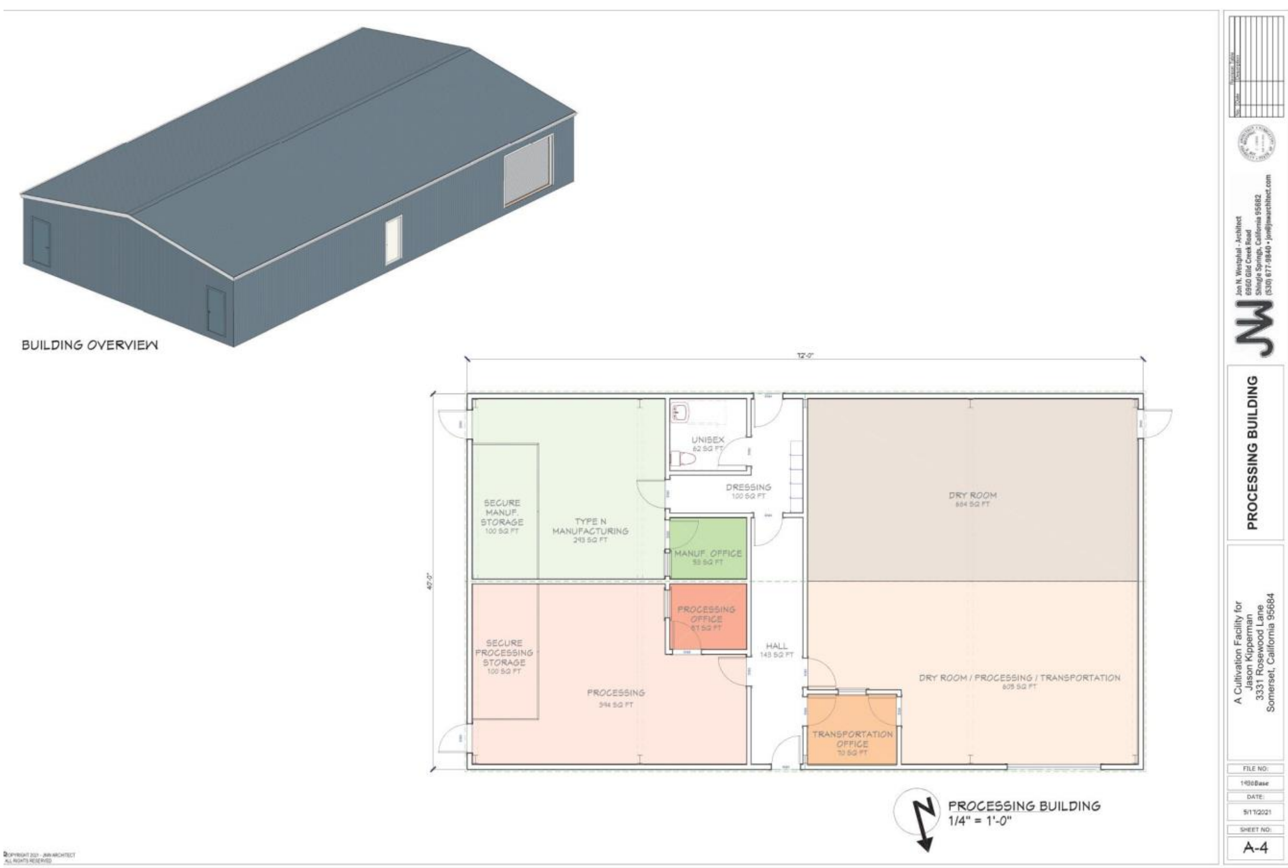
Appendix F: 3331 Rosewood Lane Tentative Site Plans







ROSEWOOD LANE
DERBY LANE
N
CONCEPTUAL SITE PLAN
3331 ROSEWOOD LANE
DATE: 05/03/2021
SCALE: 1"=60'



BUILDING OVERVIEW
SECURE MANUF. STORAGE
TYPE N MANUFACTURING
UNISEX
DRESSING
MANUF. OFFICE
DRY ROOM
SECURE PROCESSING STORAGE
PROCESSING
PROCESSING OFFICE
HALL
DRY ROOM / PROCESSING / TRANSPORTATION
TRANSPORTATION OFFICE
PROCESSING BUILDING
1/4" = 1'-0"
PROCESSING BUILDING
A Cultivation Facility for
Jason Kipperman
3331 Rosewood Lane
Somerset, California 95684
FILE NO:
DATE:
SHEET NO:
A-4


3331 Rosewood Lane
4-30'x96' Greenhouses
w/ 1- 30'x96' &
2- 30'x60' Future
334.03'
Existing Residence
N 20° 13' 51" W
385.00'
N 69° 34' 13" W
458.83'
Entrance / Exit
Gate to Property
Existing
Access Road
Rosewood Ln
N 02° 55' 17" E
Wildlife
Exclusionary
fencing
Fire Dept.
Turnaround
Existing Barn
To be demolished
854.05'
(n) Building to be used for
Processing, Distribution &
Manufacturing
See enlarged plans
N 36° 36' 35" E
821.51'
(n) Water Tank
S 02° 08' 00" E
372.40'
327.15'
N 89° 39' 40" W
964.50'
PREMISE PLAN
1" = 50'-0"
PREMISE PLANS
A Cultivation Facility for
Jason Kinsman
3331 Rosewood Lane
Somerset, California 95684
FILE NO:
1490 Base
DATE:
5/17/2021
SHEET NO:
A-3

Appendix G: Highly Flammable Trees & Vegetation

Highly Flammable Trees & Vegetation

It is advised that these trees and vegetation be removed from the defensible space area around structures.

Trees:	Grasses, Shrubs, Ground Cover
Acacia	Algerian Ivy
Arboritae California Bay	American Holly
Arizona Cypress	Bamboo
Bald Cypress	Black Sage
Blue Gum	Boxwood
Cedar	Brooms
Cryptomeria	California buckwheat
Cypress	California sagebrush
Eucalyptus	Chamise or greasewood
Pine	Deer Grasses
Hemlock	Dry annual Grasses
Italian Cypress	Fountain Grasses
Juniper	Gallberry Holly
Larch	Hopseed Bush
Leyland Cypress	Juniper
Manna Gum	Laurel sumac
Palm (when left untrimmed)	Coyote Brush
Palm Pine	Manzanita
Pepper Tree	Melaleuca
Fir	Pampas Grass
Red Cedar	Pine straw
Spruce	Podocarpus
Sugar Gum	Red Shanks
Tamarisk	Rosemary
Wax Myrtle Cabbage Palm	Salal
Yew	Saw Palmetto
	Scotch broom
	Scrub oak
	Spanish broom
	Sugar bush
	Toyon
	Wax Myrtle
	Yaupon Holly

*These plants are among those known for the amount of dead fuel that accumulates in them, and high oil, high resin, or low moisture content of their leaves and branches

**All plants are flammable if not pruned periodically and the risk attached to any one plant can be greatly diminished with maintenance.

Appendix H: Ready – Set – Go Wildfire Evacuation Program

WILDFIRE IS COMING. ARE YOU READY?

The geography, weather patterns and number of Wildland Urban Interface communities in California make it a state particularly threatened by devastating wildfire. To help educate property owners and residents in areas most at risk, CAL FIRE has developed a communications program called “Ready, Set, Go!” that breaks down the actions needed to be ready for wildfire.

Get prepared for wildfire before it strikes by following Ready, Set, Go!

- Be Ready: Create and maintain defensible space and harden your home against flying embers.
- Get Set: Prepare your family and home ahead of time for the possibility of having to evacuate.
- Be Ready to GO!: Take the evacuation steps necessary to give your family and home the best chance of surviving a wildfire.

Go to this link for additional information on the Ready - Set - Go program: https://www.readyforwildfire.org/prepare-for-wildfire/ready-set-go-campaign/ .

Appendix I: About the Author

This Fire Safe Plan was prepared in 2024 by Phillips Consulting Services of Georgetown, CA. The author, Ronald A. Phillips, has over 40 years of experience in both fire safety and emergency preparedness. Mr. Phillips served in a variety of positions within the California Fire Service including the position of Fire Chief for the City of Folsom between 2010 - 2016. He has a Bachelor of Science degree in Fire Administration along with several state and national program certificates in specialties such as the emergency management, fire prevention, arson & fire investigation, and the incident command system.

Phillips Consulting Services aids both public and private partners in the following areas of expertise:

Δ POST Incident Analysis & After-Action Reviews
Δ Homeland Security Exercises / Improvement Plans
Δ Emergency Management Planning & Documents
Δ Community Fire & Rescue Master Planning
Δ Special Event Planning
Δ Firewise™ Community Assessments & Plans
Δ WUI Site Assessments
Δ Pre-Incident Planning for First Responders
Δ Fire Code Inspections
Δ Emergency Evacuation Planning & Training

Appendix H

Preliminary Drainage Report

Preliminary Drainage Report for

Rosewood Lane

May 2021

Project: Rosewood Lane
Address: 3331 Rosewood Lane
Somerset, CA 95684
APN: 095-130-051-100 and 095-130-054-100

Prepared For (Owner):
Jason Kipperman
3331 Rosewood Lane
Somerset, CA 95684

Prepared By:
CARTWRIGHT NORCAL
3010 Lava Ridge Court., Suite 160
Roseville, CA, 95661
916.978.4001
www.cartwrightengineers.com
Project No.: 220030

Table of Contents

Preliminary Drainage Report

1 INTRODUCTION

The proposed project is for the development of a proposed cannabis cultivation, manufacturing and distribution facility located at 3331 Rosewood Lane (APNs 095-130-051-100 and 095-130-054-100) in the County of El Dorado. Parcel 095-130-051-100 is 10 AC and Parcel 095-130-054-100 is 10 AC. Both are currently developed for residential use and are proposed to be merged into a single 20 AC parcel. The property is located at the end of Rosewood Lane, which connects to Derby Lane. Rosewood Lane is currently surfaced in gravel and is proposed to be improved to fire department requirements with new gravel. The neighboring parcels are developed with similar rural residential land uses. The project parcel is in Federal Emergency Management Agency (FEMA) Zone X per FEMA FIRM 06017C1025E dated 09/26/2008. The purpose of this report is to analyze the pre-development and post-development stormwater flows for the project site to ensure no adverse impacts occur to downstream drainage facilities and to design mitigation measures in order to meet stormwater quality regulations. The peak-discharge method is used to analyze the hydrology and the water quality measures are analyzed using the online California Phase II Low Impact Development (LID) Sizing Tool.

See Appendix A for the project Vicinity Map.

2 DRAINAGE CONDITIONS

2.1 EXISTING DRAINAGE CONDITIONS

The overall project drainage shed begins at Coyote Ridge and sheet flows down to Rosewood Lane and the proposed development. Existing drainage Sheds 3, 4, 6, and 7 channelize along Rosewood Lane then drain into three separate roadway culverts spaced along the length of Rosewood Lane. After Rosewood Lane, the flows appear to continue sheet flowing north towards Omo Ranch Road. Existing drainage Shed 5 is a portion of Rosewood Lane that sheet flows north off the roadway. Existing drainage Shed 1 sheet flows toward the existing residential home where it is then channelized in a swale adjacent to the residence and flows north, on the west side of the residence. Existing drainage Shed 2 consists of the developed residential portion of the parcel and drains to a local detention pond on the property. The pond currently detains 5’ of water before outflowing through an 18” culvert to continue with the majority of the existing drainage north towards Omo Ranch Road. Existing topography beyond the immediate project parcel is approximate and based on the USGS topographic map for Aukum, CA which is at 7.5-Minute degree of accuracy. The USGS topographic map was used to delineate the upstream shed areas. Most of the drainage flowing towards Rosewood Lane is pervious Type B soil based on the hydrologic rating provided by the USGS Web Soil Survey. Refer to the Pre-Developed Shed Map in Appendix B for shed delineations.

2.2 RO OSED DRAINAGE CONDITIONS

The proposed site mimics existing drainage patterns as closely as possible, with a small adjustment to Sheds 1 & 2 as shown in the Post-Developed Shed Map found in Appendix B. Existing flows coming from Shed 1 will be channelized into an interceptor drainage swale and directed around the proposed greenhouse then directed downstream to the existing swale within the shed. The existing flows from Coyote Ridge within Shed 2 will also be picked up in an interceptor swale which directs runoff around the proposed development and into an existing 24" CMP culvert leading to the onsite existing detention basin. Overflow from this basin outflows from an 18" CMP culvert and continues north towards Omo Ranch Road.

New impervious area runoff is routed to a bioretention pond located west of the existing residential building, at the upstream end of the existing swale. During large storm events, the bioretention pond overflow will drain to the existing swale and then follow existing drainage patterns. The bioretention pond was preliminarily sized for stormwater quality purposes and will be detailed further for the final drainage report.

CRITERIA AND CALCULATIONS

.1 DRO OG CA C ATIONS

In order to determine the required on-site detention to ensure no negative downstream impacts occur due to this new development, a hydrology analysis is completed pursuant to the El Dorado County Drainage Manual. Composite Curve Number (CN) values are calculated based on Table 2.2c and Figure 2.3 in Appendix 2.3 SCS Curve Number Tables in the County of El Dorado Drainage Manual, dated September 22, 2020 (The Drainage Manual). The pre-development and post-development 2-year & 10-year peak flows are determined based on the Peak-discharge Method outlined in section 2.5 of The Drainage Manual. This method is used based on the pretense that no additional onsite detention measures due to increased flow is being proposed, the hydrological processes within the shed are simple, runoff volume is not a concern, and the project site is less than 100 acres. Based on the El Dorado County mean annual rainfall map, the project's mean annual rainfall is approximately 38 inches. Precipitation intensity was estimated using Table A2.2.8 and Table A2.2.10 in Appendix 2.2 of The Drainage Manual. Time of concentration for each shed is determined using the TR-55 method as described in Section 2.2 of the El Dorado County Drainage Manual. See Appendix C for the hydrology analysis calculations.

Shed 1 experiences a 4.7% (19, 278 ft^2) increase in impervious area due to the proposed development, which increases the pre-developed 10-year peak flow by roughly 24% (0.5 cfs). There is an increase of roughly 24% (0.3 cfs) to the 2-year pre-developed peak flow. The minor increase in peak flow is not expected to cause any negative downstream impacts. Additionally, the bioretention pond will mitigate these flows by providing some detention in this shed although this bioretention pond is not specifically designed as a detention pond.

3.2 HYDRAULIC CALCULATIONS

The proposed onsite culvert will be sized for the final report. Existing onsite culverts are assumed to be sized sufficiently and since no additional flow is proposed to these structures, they are not analyzed as part of this report.

4 POST CONSTRUCTION STORM WATER QUALITY

Based on El Dorado County's west slope Phase II NPDES permit, the project is subject to a Post Construction Storm Water Plan. The site qualifies as a Type 3 – Regulated Project because the site will create or replace 19,278 square feet of impervious surface in Proposed Shed 1. Project requirements include implementing Site Design and/or Storm Water Treatment and Baseline Hydromodification Measures using volumetric and/or flow-based sizing criteria, identifying potential sources of pollutants and implementing corresponding source control measures, and providing ongoing maintenance of water retention and treatment facilities.

4.1 PROPOSED SITE DESIGN AND TREATMENT MEASURES

The project is preserving existing tree plantings to the extent possible and using gravel in lieu of asphalt to reduce impervious area as the project site design measures. The proposed bioretention pond is the treatment control measure. The online California Phase II LID Sizing Tool for the Placerville climate station was used to size the treatment measure. See Post-Developed Shed Map and Preliminary SWQP, in Appendix B for the Sizing Tool outputs and treatment and site design measure locations

4.2 PROPOSED SOURCE CONTROL MEASURES

The project's proposed source control measure is a refuse area. The trash storage area is designed to avoid drainage run-on from adjacent impervious areas. The trash area will be paved with concrete.

4.3 MAINTENANCE

The property owner is responsible for maintenance of the treatment control measures. Below is the maintenance plan to be implement for the project.

General Maintenance Rules

At no time will synthetic pesticides or fertilizers be applied, nor will other soil amendments other than aged compost mulch or sand/compost mix, be introduced. The top of soil surface will be maintained at or near the design elevation throughout. Irrigation systems will be maintained to conserve water while maintaining plant health.

Although it is unlikely to be needed, if plants are not thriving compost tea may be applied at a recommended rate of 5 gallons mixed with 15 gallons of water per acre, up to once per year between March and June. Compost tea will not be applied when temperatures are below 50°F or above 90°F of when rain is forecast within the next 48 hours. The following may be applied for pest control if needed:

- Beneficial nematodes
- Safer® products
- Neem oil

Maintenance Schedule

The treatment facilities will be maintained on the following schedule, at a minimum:

Bioretention Facility

Daily: The facilities will be examined for visible trash during regular policing of the site, and trash will be removed. Any graffiti, vandalism, or other damage will be noted and addressed within 48 hours.

Monthly: The planted areas will be weeded by hand approximately monthly. At this time plants will be inspected for health and irrigation system will be turned on manually and checked for any leaks or broken lines, misdirected spray patterns, etc. Any dead plants will be replaced.

After Significant Rain Events: A significant rain event is one that produces approximately a half inch or more of rainfall within a 24-hour period. Within 24-hours after each such rain event, the following will be conducted:

- The surface of the facility will be observed to confirm there is no ponding.
- Inlets will be inspected, and any accumulations of trash and debris will be removed.
- Inspect side slopes for evidence of instability or erosion and correct as necessary.
- The surface of the mulch layer will be inspected for movement of material. Mulch will be replaced and raked smooth as needed.

Prior to the Start of the Rainy Season: In September of each year, the facility will be inspected to confirm there is no accumulations of debris that will block flow, and that growth or spread of plantings does not block inlets or the movement of runoff across the surface of the facility. If not previously addressed during monthly maintenance, any growth and spread of plantings that blocks inlets or the movement of runoff across the surface of the facility will be cut back or removed.

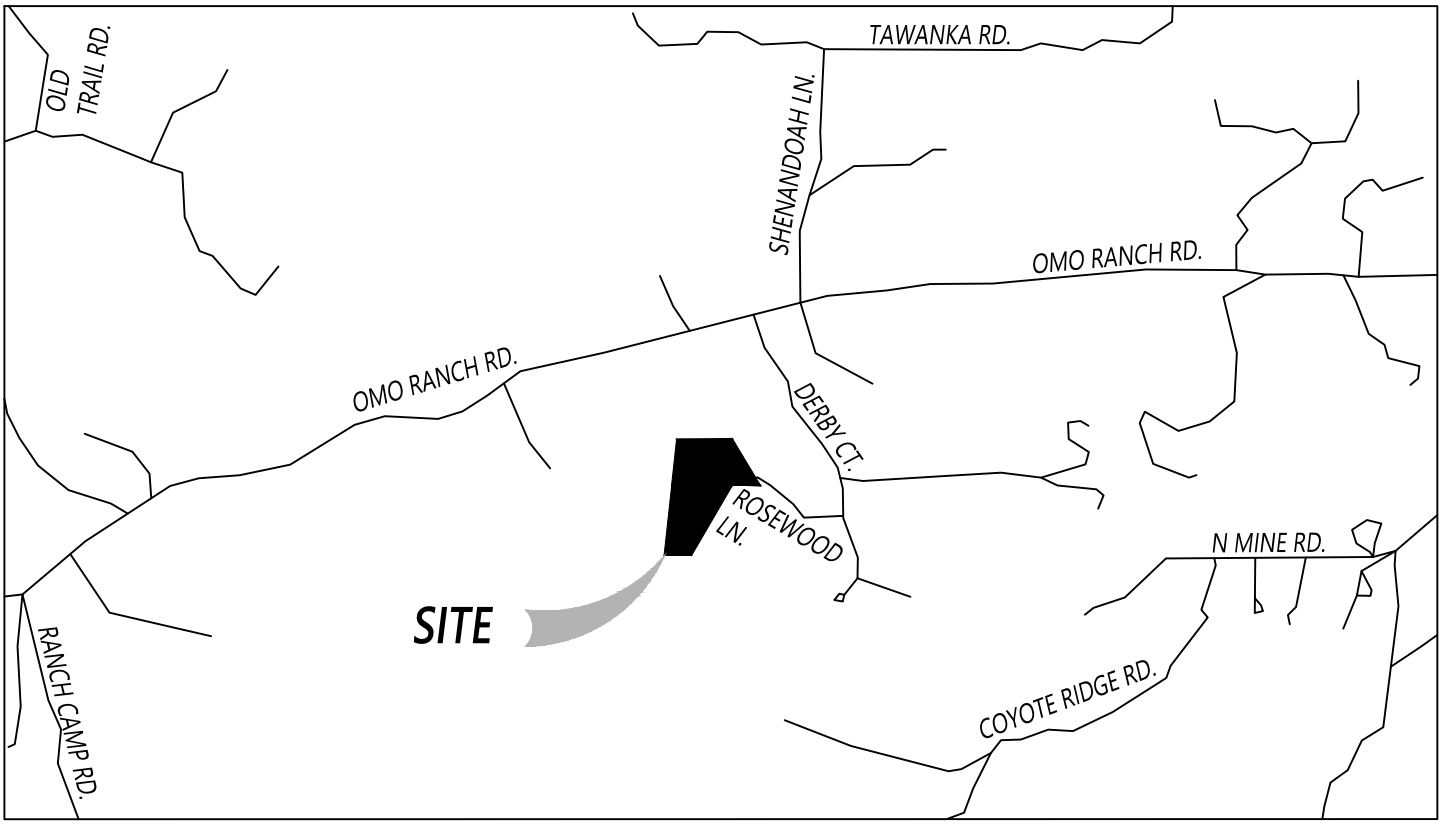
Annual Landscape Maintenance during Winter: In December – February of each year, vegetation will be cut back as needed, debris removed, and plants and mulch replaced as needed. The concrete work will be inspected for damage. The elevation of the top of soil and mulch layer will be confirmed to be consistent with the 6" minimum reservoir depth.

5 CONCLUSIONS

The proposed project meets the Phase II NPDES permit Post Construction requirements for a Regulated (Project Type 3) with the use of a bioretention pond sized in accordance with the online California Phase II Low Impact Development (LID) Sizing Tool. The proposed project also meets the County's general requirement to not adversely impact upstream or downstream drainage conditions by ensuring peak flows are not increased by a significant amount, minimizing proposed impervious surfaces, maintaining existing drainage patterns, and retaining existing tree plantings.

Appendix

Appendix A – Vicinity Map



VICINITY MAP

NOT TO SCALE

CARTWRIGHT NOR CAL

CIVIL ENGINEERING & PROJECT MANAGEMENT

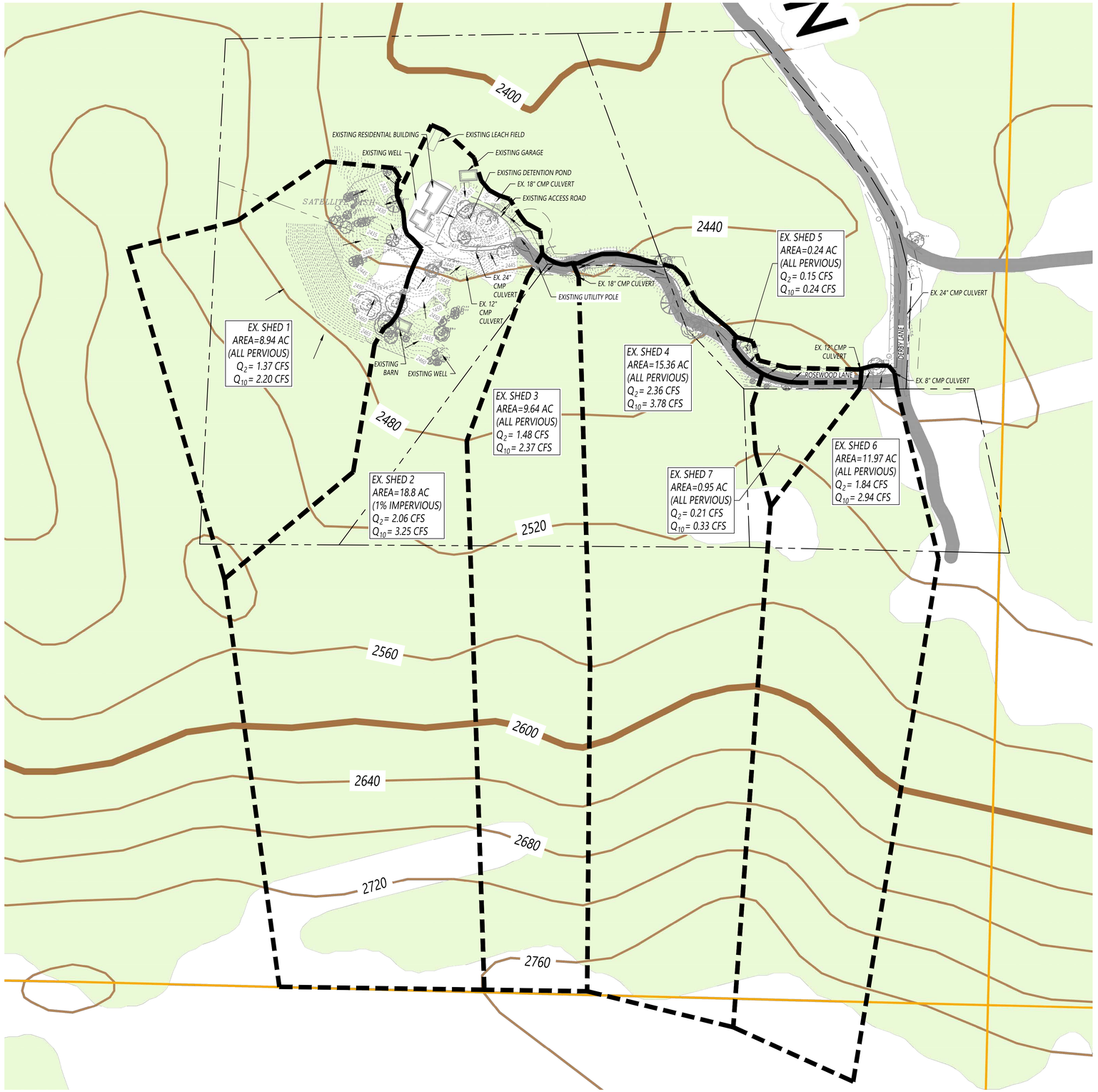
3010 LAVA RIDGE COURT, SUITE 160
ROSEVILLE, CA 95661
T (916) 978-4001
WWW.CARTWRIGHTENGINEERS.COM

VICINITY MAP

3331 ROSEWOOD LANE
SOMERSET, CA 95684

DATE: 04/15/2021
SCALE: N/A

Appendix B – Exhibits



LEGEND

- EXISTING 1-FT CONTOUR
- EXISTING 5-FT CONTOUR
- PROPERTY LINE
- EXISTING EASEMENT
- DMA BOUNDARY
- EXISTING DRAINAGE DIRECTION
- 2600 — USGS TOPO MAP CONTOUR LABEL
- EXISTING TREE

NOTE: UPSTREAM DRAINAGE SHEDS DELINEATED USING A USGS 7.5-MINUTE TOPO MAP. DISPLAYED ON THIS SHED MAP FOR REFERENCE.

N

0' 30' 60' 120'

SCALE: 1"=60'

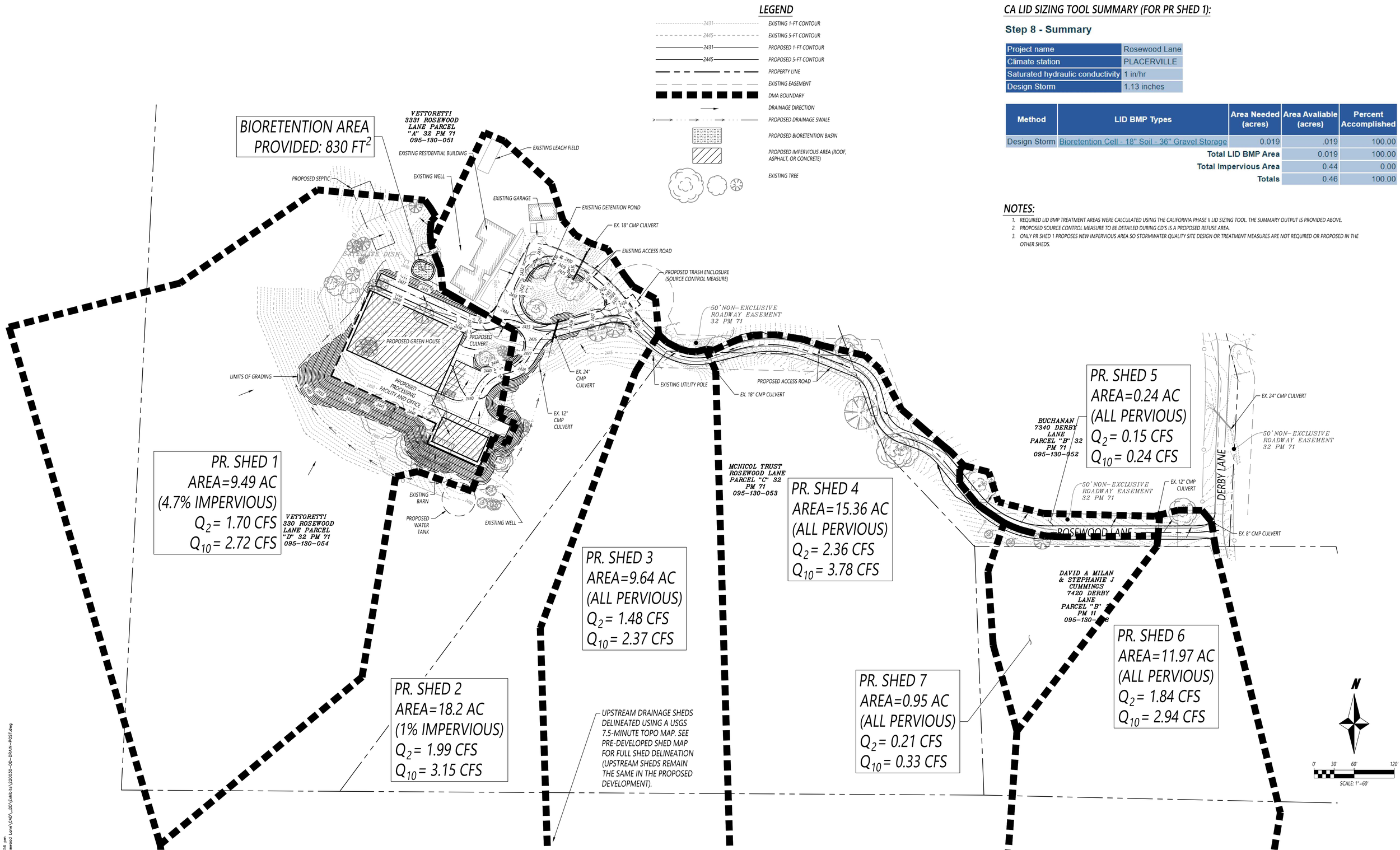
PRE-DEVELOPED SHED MAP

3331 ROSEWOOD LANE
SOMERSET, CA 95684

DATE: 05/03/2021
SCALE: 1"=60'
DRAWN BY: RP

CARTWRIGHT NOR CAL
CIVIL ENGINEERING & PROJECT MANAGEMENT
3010 LAVA RIDGE COURT, SUITE 160
ROSEVILLE, CALIFORNIA 95661
T (916) 978-4001
WWW.CARTWRIGHTENGINEERS.COM

Login Name: amfiec
Plot Date: May 27, 2021 - 5:56 pm
File Name: U:\2020\20-3331 Rosewood Lane\CAD_SDP\Exhibits\2020030-00-DRAIN-PRE.dwg



CA LID SIZING TOOL SUMMARY (FOR PR SHED 1):

Step 8 - Summary

Project name	Rosewood Lane
Climate station	PLACERVILLE
Saturated hydraulic conductivity	1 in/hr
Design Storm	1.13 inches

Method	LID BMP Types	Area Needed (acres)	Area Avaliable (acres)	Percent Accomplished
Design Storm	Bioretention Cell - 18" Soil - 36" Gravel Storage	0.019	.019	100.00
	Total LID BMP Area	0.019	100.00	
	Total Impervious Area	0.44	0.00	
	Totals	0.46	100.00	

NOTES:

1. REQUIRED LID BMP TREATMENT AREAS WERE CALCULATED USING THE CALIFORNIA PHASE II LID SIZING TOOL. THE SUMMARY OUTPUT IS PROVIDED ABOVE.
2. PROPOSED SOURCE CONTROL MEASURE TO BE DETAILED DURING CD'S IS A PROPOSED REFUSE AREA.
3. ONLY PR SHED 1 PROPOSES NEW IMPERVIOUS AREA SO STORMWATER QUALITY SITE DESIGN OR TREATMENT MEASURES ARE NOT REQUIRED OR PROPOSED IN THE OTHER SHEDS.

POST-DEVELOPED SHED MAP AND PRELIMINARY SWQP

CARTWRIGHT NOR CAL
CIVIL ENGINEERING & PROJECT MANAGEMENT
3010 LAVA RIDGE COURT, SUITE 160
ROSEVILLE, CALIFORNIA 95661
T (916) 978-4001
WWW.CARTWRIGHTENGINEERS.COM

3331 ROSEWOOD LANE
SOMERSET, CA 95684

DATE: 05/03/2021
SCALE: 1"=60'
DRAWN BY: RP

Login Name: anellec
Plot Date: May 27, 2021 - 5:56 pm
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Appendix C – Hydrology & Calculations

3331 Rosewood Lane

Table 1 - Hydrology Analysis - 2 and 10 Year Peak Runoff - Pre-Development

Description: Calculation of 2 & 10-Year Peak Flows

References: El Dorado County Drainage Manual [County Manual];

Date: 05/27/21

Calculated Values:

$t_r = t_o + t_g + t_p$ (minimum 5 minutes)

t_o = Overland Flow Time = ((0.007(n*L)^0.5)/(S^0.4))*60

t_g = Gutter Travel Time = L / V / 60

t_p = Pipe Travel Time = L / V / 60

n = Manning's Roughness coefficient for overland flow

Table 1A - Pre-Development Response Time

Basin Data		Overland Flow			
Drainage Basin	Drainage Area, A (acres)	Overland Flow Distance, D (ft)	Manning's Roughness Coefficient, n (unitless)	Average Ground Slope, S (ft/ft)	Overland Flow Time, t_o (min.)
Ex. Shed 1	8.94	1,038	0.40	0.149	70
Ex. Shed 2	18.80	1,798	0.40	0.092	133
Ex. Shed 3	9.64	1,706	0.40	0.267	83
Ex. Shed 4	15.36	1,750	0.40	0.291	82
Ex. Shed 5	0.24	318	0.01	0.150	5
Ex. Shed 6	11.97	1,625	0.40	0.268	80
Ex. Shed 7	0.95	335	0.40	0.200	25

Table 1B - Pre-Development 2-Year and 10-Year Flow Analysis

Basin Data		Total Response Time, t_r (min.)	Project Site Elevation, E (ft)	Soil Type	Soil Cover Type	2-Yr Rainfall Intensity (in/hr)	10-Yr Rainfall Intensity (in/hr)	Curve Number CN	Runoff Coefficient, 10 yr C_O	2-Year Peak Flow, Q_{p2} (cfs)	10-Year Peak Flow, Q_{p10} (cfs)
Drainage Basin	Drainage Area, A (acres)										
Ex. Shed 1	8.94	70.44	2,480	B	Woods-Grass	0.640	1.024	65	0.24	1.373	2.197
Ex. Shed 2	18.80	132.56	2,580	B	Woods-Grass	0.456	0.720	65	0.24	2.057	3.249
Ex. Shed 3	9.64	83.00	2,600	B	Woods-Grass	0.640	1.024	65	0.24	1.481	2.369
Ex. Shed 4	15.36	81.84	2,600	B	Woods-Grass	0.640	1.024	65	0.24	2.359	3.775
Ex. Shed 5	0.24	5.00	2,490	B	Gravel	2.260	3.592	85	0.28	0.152	0.241
Ex. Shed 6	11.97	79.71	2,620	B	Woods-Grass	0.640	1.024	65	0.24	1.839	2.942
Ex. Shed 7	0.95	25.34	2,520	B	Woods-Grass	0.912	1.454	65	0.24	0.208	0.332

Minimum t_r = 5 minutes

3331 Rosewood Lane

Table 2 - Hydrology Analysis - 2 10 Year Peak Runoff - Post-Development

Description: Calculation of 2 & 10-Year Peak Flows

References: El Dorado County Drainage Manual [County Manual];

Date: 05/27/21

Calculated Values:

$t_r = t_o + t_g + t_p$ (minimum 5 minutes)

t_o = Overland Flow Time = ((0.007(n*L)^0.5)/(S^0.4))*60

t_g = Gutter Travel Time = L / V / 60

t_p = Pipe Travel Time = L / V / 60

n = Manning's Roughness coefficient for overland flow

n_c = Mannings Roughness coefficient for channels

Table 2A - Post-Development Response Time

Basin Data		Overland Flow				Collector Flow									
						Pipe Flow			Channel Flow						
Drainage Basin	Drainage Area, A (acres)	Overland Flow Distance, D (ft)	Manning's Roughness Coefficient, n (unitless)	Average Ground Slope, S (ft/ft)	Overland Flow Time, t_o (min.)	Flow Velocity, V (ft/sec)	Pipe Length, L (ft)	Pipe Travel Time, t_p (min.)	Contributing Shed Area (acres)	Mannings Coefficient, n_c, (unitless)	Side Slope (ft/ft)	Channel Slope, s (ft/ft)	Channel Length, L (ft)	Flow Velocity, V (ft/sec)	Channel Travel Time, t_g (min.)
Pr. Shed 1	9.49	661	0.40	0.149	49				9.49	0.08	3	0.01	360	1.00	6.0
Pr. Shed 2	18.20	1,503	0.40	0.092	115				18.20	0.08	3	0.01	320	1.11	4.8
Pr. Shed 3	9.64	1,706	0.40	0.267	83										
Pr. Shed 4	15.36	1,750	0.40	0.291	82										
Pr. Shed 5	0.24	318	0.01	0.150	5										
Pr. Shed 6	11.97	1,625	0.40	0.268	80										
Pr. Shed 7	0.95	335	0.40	0.200	25										

Table 2B - Post-Development 2-Year and 10-Year Flow Analysis

Basin Data		Total Response Time, t_r (min.)	Project Site Elevation, E (ft)	Soil Type	Soil Cover Type	2-Yr Rainfall Intensity (in/hr)	10-Yr Rainfall Intensity (in/hr)	Curve Number CN	Runoff Coefficient, 10 yr C_O	2-Year Peak Flow, Q_{p2} (cfs)	10-Year Peak Flow, Q_{p10} (cfs)
Drainage Basin	Drainage Area, A (acres)										
Pr. Shed 1	9.49	55.09	2,480	B	Woods-Grass & Roo	0.640	1.024	67	0.28	1.701	2.721
Pr. Shed 2	18.20	119.66	2,580	B	Woods-Grass & Roo	0.456	0.720	65	0.24	1.992	3.145
Pr. Shed 3	9.64	83.00	2,600	B	Woods-Grass	0.640	1.024	65	0.24	1.481	2.369
Pr. Shed 4	15.36	81.84	2,600	B	Woods-Grass	0.640	1.024	65	0.24	2.359	3.775
Pr. Shed 5	0.24	5.00	2,490	B	Gravel	2.260	3.592	85	0.28	0.152	0.241
Pr. Shed 6	11.97	79.71	2,620	B	Woods-Grass	0.640	1.024	65	0.24	1.839	2.942
Pr. Shed 7	0.95	25.34	2,520	B	Woods-Grass	0.912	1.454	65	0.24	0.208	0.332

Minimum t_r = 5 minutes

Appendix I

Environmental Noise Assessment

Environmental Noise Assessment

3331 Rosewood Lane Greenhouses

El Dorado County, California

August 23, 2021

Project #210710

Prepared for:

Jason Kipperman
3331 Rosewood Lane
Somserset, CA 95684

Prepared by:

Saxelby Acoustics LLC

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
www.SaxNoise.com | Luke@SaxNoise.com
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

INTRODUCTION

The 3331 Rosewood Lane Greenhouse project is located in El Dorado County, California. The project will include the construction of several greenhouses and a processing building in two phases. Phase 1 will include the construction of four gutter-connected 30' by 96' greenhouses and the processing building. Phase 2 will include the construction of a fifth gutter-connected 30' by 96' greenhouse and two 30' by 60' greenhouses located south of the gutter-connected structures. The greenhouses and processing building will be serviced by various fans and mechanical equipment. A backup generator will be located near the western façade of the processing building. There are five sensitive receptors within the project vicinity. The purpose of this analysis is to ensure the project meets the noise requirements of El Dorado County at the adjacent residential uses.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10-dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10-dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Table 1 lists several examples of the noise levels associated with common situations. **Appendix A** provides a summary of acoustical terms used in this report.

Table 1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	--100--	
Gas Lawn Mower at 1 m (3 ft.)	--90--	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	--80--	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	--70--	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	--60--	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing
Source: Caltrans, Technical Noise Supplement, Traffic Noise Analysis Protocol. September, 2013.		

Effects of Noise on People

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction
- Interference with activities such as speech, sleep, and learning
- Physiological effects such as hearing loss or sudden startling

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- A change in level of at least 5-dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6-dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

REGULATORY CONTEXT

El Dorado County

The El Dorado County General Plan establishes noise level performance standards for noise sensitive land uses affected by non-transportation noise sources. **Table 2** shows the County standards. The Rural Region noise standards apply to the land uses adjacent to the Project.

Table 2: El Dorado County Exterior Noise Limits

Noise Level Descriptor	Daytime 7 a.m. – 7 p.m.		Evening 7 p.m. – 10 p.m.		Night 10 p.m. – 7 a.m.	
	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions	Community / Rural Centers	Rural Regions
Hourly L_{eq}, dBA	55	50	50	45	45	40
Maximum Level (L_{max}), dBA	70	60	60	55	55	50

1. Each of the noise levels specified above shall be lowered by 5 dBA for simple tone noises, noises consisting primarily of unamplified speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses, such as caretaker dwellings.
2. The Director can impose noise level standards which are up to 5 dBA less than those specified above, based upon a determination of existing low ambient noise levels in the vicinity of the project site.
3. The exterior noise level standard shall be applied as follows:
   a. In Community Regions, at the property line of the receiving property;
   b. In Rural Centers and Regions, at a point 100 feet away from a sensitive receptor or, if the sensitive receptor is within the Platted Lands Overlay (-PL) where the underlying land use designation is consistent with Community Region densities, at the property line of the receiving property or 100 feet away from the sensitive receptor, whichever is less; or
   c. In all areas, at the boundary of a recorded noise easement between affected properties.

Based upon **Table 2**, the County establishes acceptable noise levels of 50 dBA L_{eq} for daytime (7:00 a.m. to 7:00 p.m.), 45 dBA L_{eq} for evening (7:00 p.m. to 10:00 p.m.), and 40 dBA L_{eq} for nighttime (10:00 p.m. to 7:00 a.m.) operations. This analysis assumes that all fans would operate during nighttime hours. Therefore, t he project will need to meet a property line noise level of 40 dBA L_{eq}.

It should be noted that steady-state fan noise does not fluctuate greatly. Therefore, the average (L_{eq}) standard is the most relevant standard. Exceedances of the County's maximum (L_{max}) standards, which are 10 dBA higher, are not predicted to occur.

EVALUATION OF PROJECT GENERATED NOISE AT ADJACENT SENSITIVE RECEPTORS

To quantify project generated noise levels, Saxelby Acoustics utilized sound power level data obtained from the manufacturer's specifications as well as data collected for similar equipment. **Table 3** summarizes the assumed sound level data for the proposed equipment.

Each of the proposed greenhouses will be equipped with two 54-inch QuietAire exhaust fans. The 30' by 96' greenhouses will each contain one Modine PTP 250k BTU heater, one Quest Dual 150 dehumidifier, four Schaefer VK20 fans, and two Multifan VAF fans. The 30' by 60' greenhouses will contain up to one Modine PTP 250k BTU heater, one Quest Dual 150 dehumidifier, two Schaefer VK20 fans, and one Multifan VAF fan. The proposed processing building will contain up to eight Multifan VAF fans and four Quest Dual 150 dehumidifiers. A single Kohler 50REOZK backup generator will be located to the west of the proposed processing building. This analysis assumes that all equipment will be operated with doors and windows closed and that the backup generator will be equipped with the manufacturer's sound isolation enclosure.

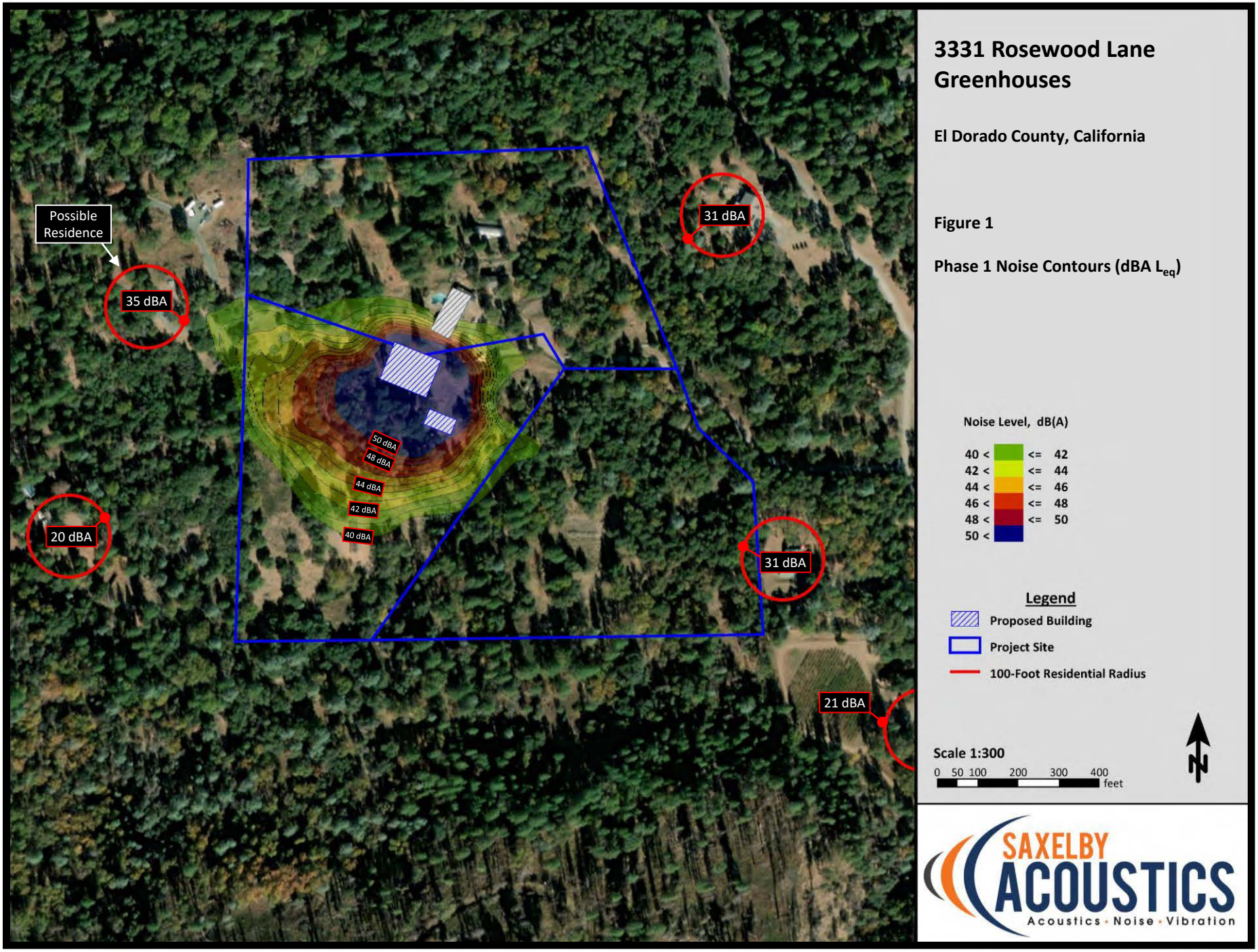
Table 3: Sound Level Data for Proposed Equipment

Equipment	Assumed Sound Level
54-Inch QuietAire End Wall Fan	55 dBA at 25 feet[1]
VK20 Circulation Fans (eight installed)	58 dBA at 25 feet[3]
Quest Dual 150 Dehumidifier	52 dBA at 25 feet[3]
Modine PTP 250k BTU Heater	61 dBA at 25 feet[3]
Multifan VAF Fan	46 dBA at 25 feet[2]
Kohler REOZK Generator	63 dBA at 25 feet[2]

1. Saxelby Acoustics Data
2. Manufacturer's Data
3. Data from Similar Equipment

Inputs to the model included sound power levels for the proposed equipment, existing and proposed buildings, terrain type, and locations of sensitive receptors. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors). ISO 9613 is the most commonly used method for calculating exterior noise propagation.

Based upon the SoundPLAN noise model of the proposed project layout, the proposed equipment is predicted to generate noise levels up to 35 dBA L_{eq} at a distance of 100 feet from the nearest residence. These noise levels will comply with the El Dorado County nighttime (10:00 p.m. to 7:00 a.m.) noise standard of 40 dBA L_{eq}. **Figure 1** shows the predicted noise level contours for Phase 1 of the project, which includes four greenhouses, the processing building, and backup generator. **Figure 2** shows the predicted noise level contours for Phase 2 of the project, which adds three greenhouses to Phase 1.



3331 Rosewood Lane Greenhouses

El Dorado County, California

Figure 1

Phase 1 Noise Contours (dBA L_{eq})

Noise Level, dB(A)

40 <	<=	42
42 <	<=	44
44 <	<=	46
46 <	<=	48
48 <	<=	50
50 <		

Legend

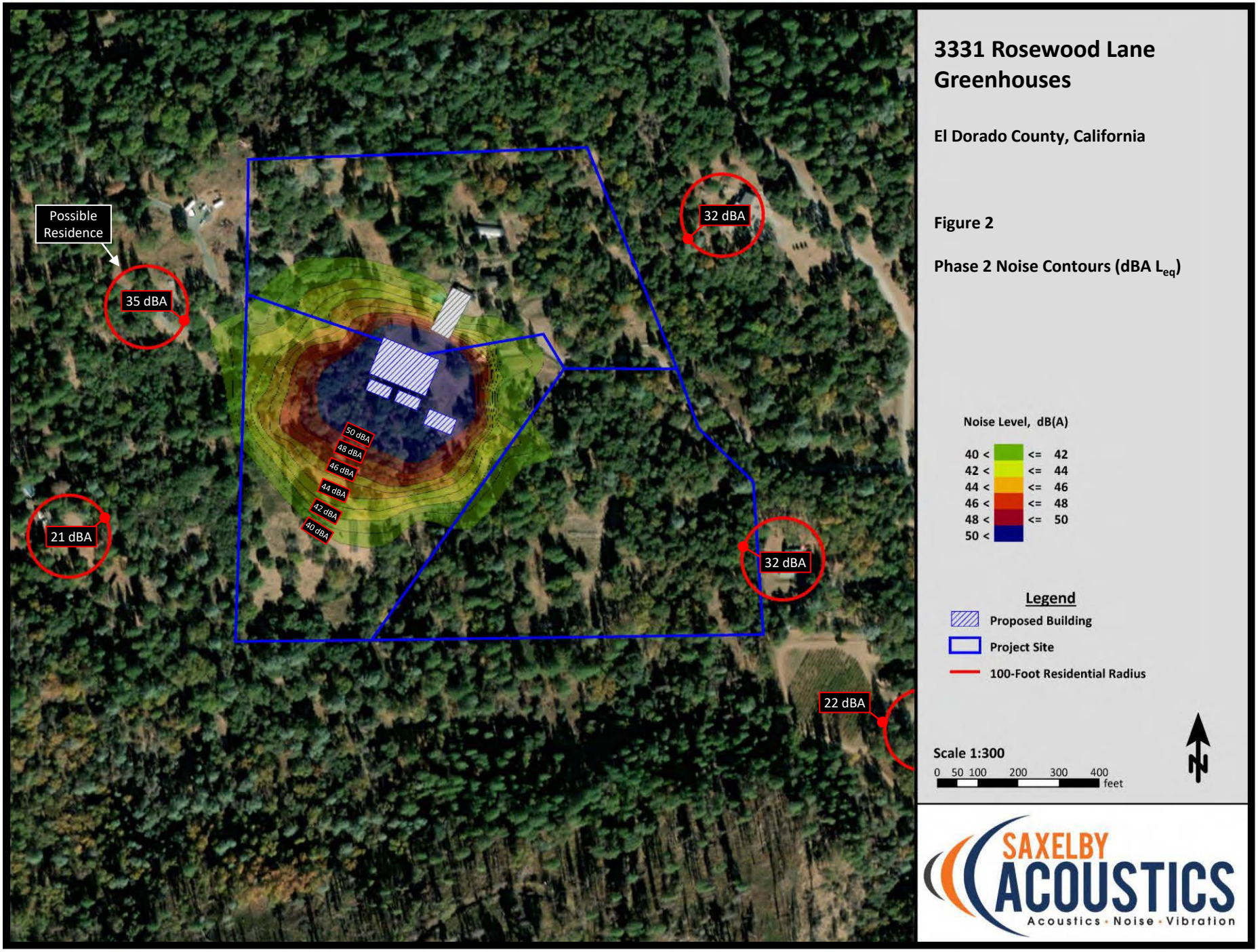
- Proposed Building
- Project Site
- 100-Foot Residential Radius

Scale 1:300

0 50 100 200 300 400 feet

N

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration



3331 Rosewood Lane Greenhouses

El Dorado County, California

Figure 2

Phase 2 Noise Contours (dBA L_{eq})

Noise Level, dB(A)

40 <	<=	42
42 <	<=	44
44 <	<=	46
46 <	<=	48
48 <	<=	50
50 <		

Legend

- Proposed Building
- Project Site
- 100-Foot Residential Radius

Scale 1:300

0 50 100 200 300 400 feet

N

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

CONCLUSIONS

The proposed project is predicted to meet the El Dorado County 40 dBA L_{eq} nighttime noise standard as planned. This analysis assumes that all equipment will be operated with doors and windows closed and that the backup generator will be equipped with the manufacturer's sound isolation enclosure.

Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

Appendix J

AB 52 Consultation Record

PLANNING AND BUILDING DEPARTMENT

PLANNING SERVICES DIVISION

http://www.edcgov.us/DevServices/

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2850 Fairlane Court, Placerville, CA 95667
BUILDING
(530) 621-5315 / (530) 622-1708 Fax
bldgdept@edcgov.us
PLANNING
(530) 621-5355 / (530) 642-0508 Fax
planning@edcgov.us

LAKE TAHOE OFFICE:
924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

October 15, 2021

Colfax-Todds Valley Consolidated Tribe
Pamela Cubbler, Treasurer
P.O. Box 4884
Auburn, CA 95604

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Ms. Cubbler,

This letter is in response to your request received on March 6, 2018 for formal notification of proposed projects within the Colfax-Todds Valley Consolidated Tribe Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
> **County Planner: Aaron Mount, 530-621-5345**

Project Documentation can be viewed: https://drive.google.com/drive/folders/1oPI2_V3Pjbsxp-FWo2LQJnhpqe0ulXCq?usp=sharing

This project is subject to the cultural resources provisions of CEQA Assembly Bill 52 (AB52), which require Native American outreach. Pursuant to AB52, the County is soliciting input from Native American organizations and representatives listed with the Native American Heritage Commission to identify cultural resources and properties of concern to the Native American Community.

Please respond within 30 days of receipt of this letter to provide any information regarding archaeological sites, tribal cultural resources or areas of cultural importance known to occur within or near the project area and/or to request consultation with the County, if desired. In accordance with federal and state laws, information received in response to this letter will be kept confidential. If you have any questions regarding this project or require further information, please do not hesitate to contact us. We can be reached by phone 530-621-5355 or via email at planning@edcgov.us.

cc. Clyde Prout, Chairperson

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South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

October 15, 2021

Ione Band of Miwok Indians
Sara D. Setshwaelo, Chairperson
9252 Bush Street, Suite 2
Plymouth, CA 95669

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Ms. Setshwaelo,

This letter is in response to your request received on March 7, 2016 for formal notification of proposed projects within the Ione Band of Miwok Indians Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
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(530) 573-3330
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October 15, 2021

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Mr. Cosme Valdez, Chairperson
P.O. Box 580986
Elk Grove, CA 95758

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Valdez,

This letter is in response to your request received on July 15, 2016 for formal notification of proposed projects within the Nashville-El Dorado Miwok Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
> **County Planner: Aaron Mount, 530-621-5345**

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924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

October 15, 2021

Shingle Springs Band of Miwok Indians
Regina Cuellar, Chairperson
P.O. Box 1340
Shingle Springs, CA 95682

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Ms. Cuellar,

This letter is in response to your request received on July 15, 2016 for formal notification of proposed projects within the Shingle Springs Band of Miwok Indians Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
> **County Planner: Aaron Mount, 530-621-5345**

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cc. James Sarmento, Executive Director of Cultural Resources

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South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

October 15, 2021

Tsi Akim Maidu
Mr. Don Ryberg, Chairperson
P.O. Box 510
Browns Valley, CA 95918

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Ryberg,

This letter is in response to your request received on July 15, 2016 for formal notification of proposed projects within the T'si-Akim Maidu Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
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cc. Grayson Coney, Cultural Director

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South Lake Tahoe, CA 96150
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(530) 542-9082 Fax

October 15, 2021

United Auburn Indian Community of the Auburn Rancheria — CERTIFIED MAIL
Gene Whitehouse, Chairperson
10720 Indian Hill Road
Auburn, CA 95603

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Whitehouse,

This letter is in response to your request received on February 18, 2020 for formal notification of proposed projects within the United Auburn Indian Community of the Auburn Rancheria's Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
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planning@edcgov.us

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924 B Emerald Bay Rd
South Lake Tahoe, CA 96150
(530) 573-3330
(530) 542-9082 Fax

October 15, 2021

Washoe Tribe of Nevada and California
Darrel Cruz, Cultural Resources Department
919 Highway 395 North
Gardnerville, NV 89410

CERTIFIED MAIL

RE: Assembly Bill 52 Consultation for **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation** a Proposed Project within the County of El Dorado

Dear Mr. Cruz,

This letter is in response to your request received on May 2, 2016 for formal notification of proposed projects within the Washoe Tribe of Nevada and California Geographic Area of Traditional and Cultural Affiliation.

> **CCUP21-0007 – Rosewood Commercial Cannabis Cultivation (Jason Kipperman, Dale Schafer Law Office/Jordan Vettoretti/Jon Westphal, JNW Architects):** A Commercial Cannabis Use Permit request for cultivation, transport only distribution, and Type N manufacturing. The property, identified by Assessor's Parcel Numbers 095-130-051 and 095-130-054, consists of 20 acres, and is located on the west side of Rosewood Lane, approximately 930 feet east of the intersection with Darby Court, **in the Somerset area**.
> **County Planner: Aaron Mount, 530-621-5345**

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cc. Serrell Smokey, Chairperson

Aaron Mount <aaron.mount@edcgov.us>

Fwd: AB52: CCUP21-0007 - Rosewood Commercial Cannabis Cultivation

1 message

Planning Department <planning@edcgov.us> Tue, Nov 9, 2021 at 12:17 PM
To: Aaron Mount <aaron.mount@edcgov.us>

---------- Forwarded message ---------
From: **Anna Starkey** <astarkey@auburnrancheria.com>
Date: Tue, Nov 9, 2021 at 12:07 PM
Subject: AB52: CCUP21-0007 - Rosewood Commercial Cannabis Cultivation
To: planning@edcgov.us <planning@edcgov.us>

Good afternoon,

On behalf of the United Auburn Indian Community, Tribal Historic Preservation Department, thank you for the notification and opportunity to consult on the project referenced above. Thank you also for providing the archaeological study for review. Based on our review, including a desktop review of the project location in our THRIS database, we do not have any concerns regarding this project and therefore will decline to consult.

Kind regards,

Anna Starkey

The United Auburn Indian Community is now accepting electronic consultation request, project notifications, and requests for information! Please fill out and submit through our website. Do not mail hard copy letters or documents. https://auburnrancheria.com/programs-services/tribal-preservation ***Bookmark this link!***

Anna M. Starkey, M.A., RPA
Cultural Regulatory Specialist
Tribal Historic Preservation Department| UAIC
10720 Indian Hill Road
Auburn, CA 95603
Direct line: (916) 251-1565 | Cell: (530) 863-6503
astarkey@auburnrancheria.com |www.auburnrancheria.com

Appendix K

Percolation Test

PERCOLATION TEST
BY

Ron Duncan, REHS #3336
4400 Duncan Hill Rd. Rescue, Calif. 95672
530-677-3708, cell (916) 712-8015
(fax) 530-676-3758, perctest@yahoo.com

Location of Property: 3331 Rosewood Ln. off Omo Ranch Rd

Owner/Builder Jason Kipperman **APN** 095-130-051
Address _____ **Phone** _____
Jay Kipp@icloud.com

This Parcel has an existing 7 Bed Hse with an existing Septic System consisting of a 2000gal Septic tank and 165' of 2'wide & 6'deep leach line based on a Joe Norton 7/31/83 perc test of 23 mpi w/ soil w/o groundwater to 11'

The current project is to build a processing Building with a Bathroom for up to 10 employees (200 gals/day)

The Calc's for the New System are:

Design flow = 200 gpd = 1000 gal Septic tank

Application rate = $\frac{5}{\sqrt{T}} = \frac{5}{\sqrt{23}} = 1.04$

Absorption area = $\frac{200}{1.04} = 191$ sq ft

using quick 4 Hi cap infiltrators = 5.0 sq ft/ft

$\frac{191}{5.0} = 38'$ (use 40')

REHS #3336
6/6/21

PERCOLATION TEST
BY
Ron Duncan, REHS #3336
4400 Duncan Hill Rd.
Rescue, Calif. 95672
530-677-3708, cell (916) 712-8015
(fax) 530-676-3758, perctest@yahoo.com

THIS IS A BILL

Location of Property: 3331 Rosewood Ln

Owner/Builder Jason Kipperman **APN** 095-130-05/
Address _____ **Phone** _____
_____ JayKipp@icloud.com
_____

Please remit for the following:

	Percolation Test	
	Septic System Design	600
open trench	Inspection (s)	100
	Backhoe Services	
	Other: _____	
	Total:	$700

Send Remittance to:

Ron Duncan, RS
P.O. Box 314
Rescue, California 95672

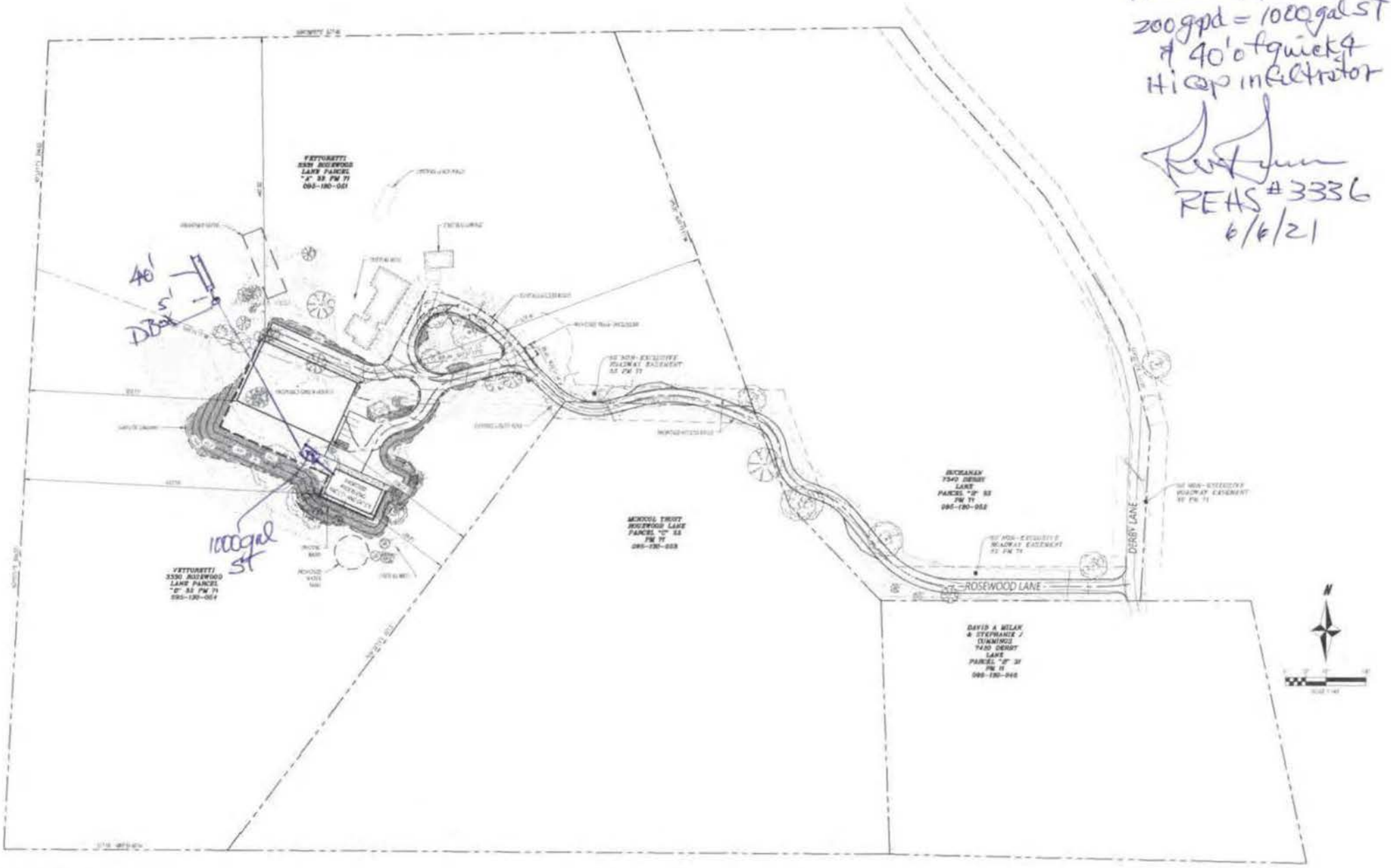
Services have been performed and payments are due upon receipt of this bill, Thank You

Ron Duncan REHS #3336

Ronald D. Duncan, REHS #3336
Environmental Consultant

095-130-051
Processing plant Bath
200gpd = 1000gal ST
# 40'of quick 4
Hi cap infiltrator

REHS # 3336
6/6/21



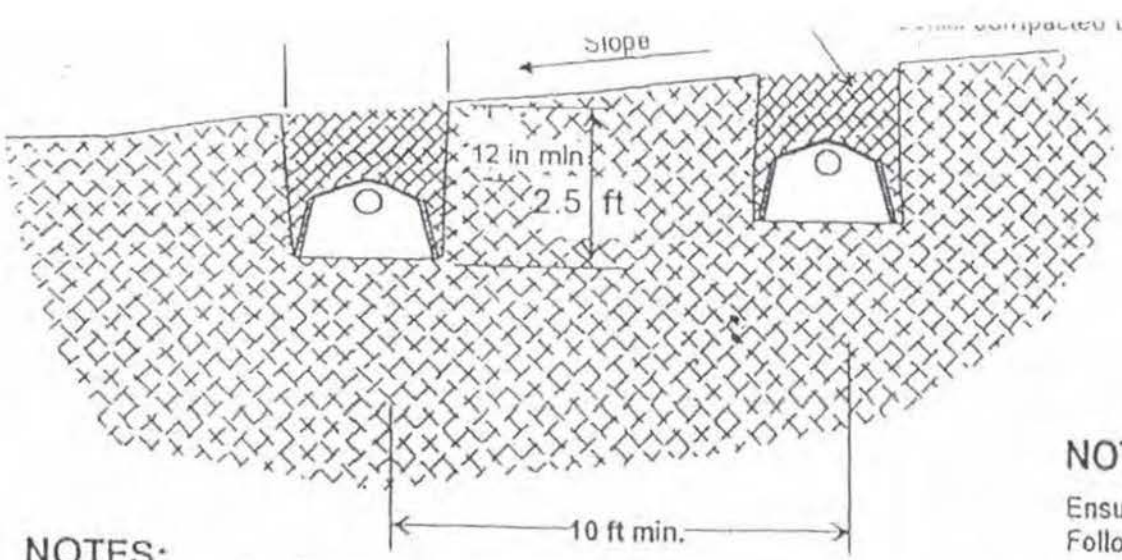
CARTWRIGHT NOR CAL

3810 LAVA RIDGE COURT, SUITE 160
ROSEVILLE, CALIFORNIA 95661
T (916) 575-4800
WWW.CARTWRIGHTENGINEERS.COM

CONCEPTUAL SITE PLAN

3331 ROSEWOOD LANE
SOMERSET, CA 95684

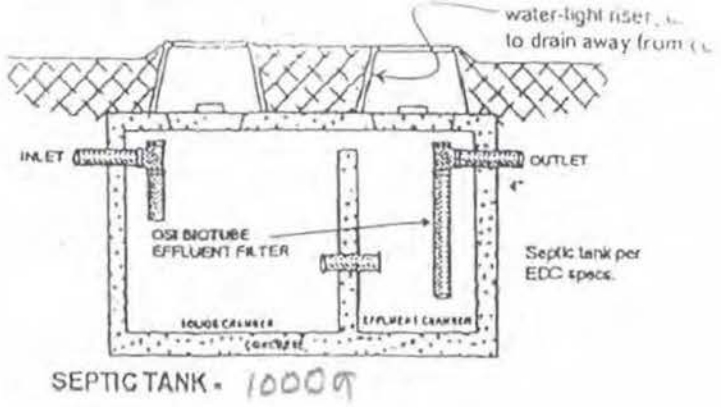
DATE: 05/03/2021
SCALE: 1"=40'
DRAWN BY: RP



NOTES:

Install a total of 40 linear feet of ~3 ft wide by 2.5 feet deep trench to recieve *HIGH* Infiltrator chamber.
Trenches are to be excavated along contour, spaced at least 10 ft on centers
Leach lines to be constructed of approved Infiltrator System chambers. Prior to placing chambers, rake all smeared or compacted surfaces. Place chamber on level trench bottom Cover chamber material with native soil, compact by foot, per factory installation instructions. Place backfill onlyafter inspection and acceptance. Install distribution boxes to allow serial distribution to leach lines.

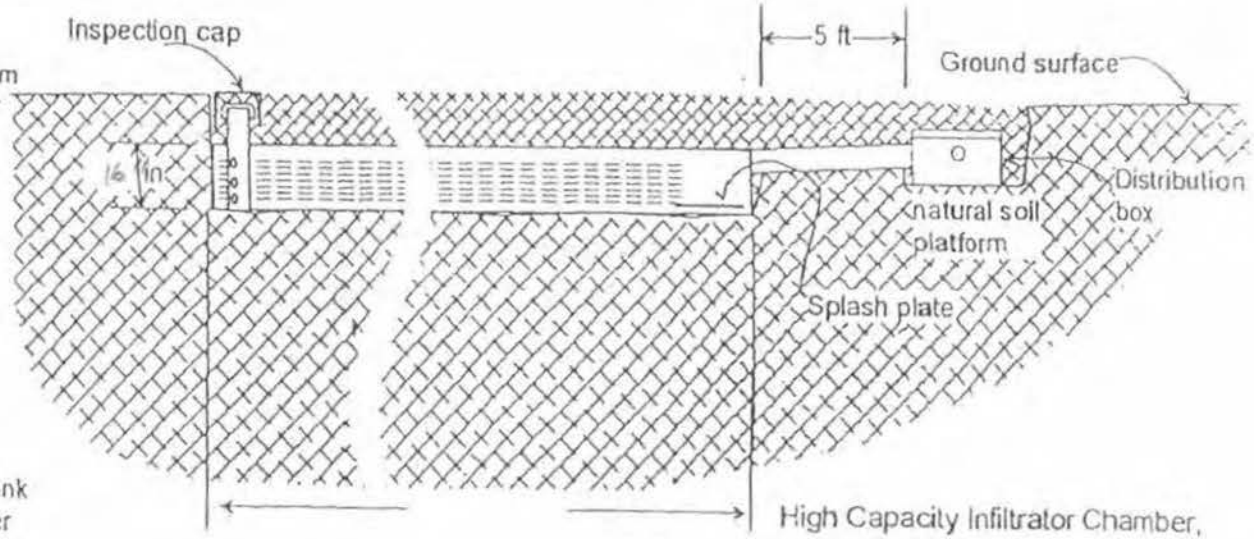
Tightline under driveways will be, Schedule 40 ABS pipe with at least 1 ft natural soil cover and 1/8 in/ft of slope. Tightline must have a cleanout every 100 ft on runs longer than 100 ft.
No grading, cuts or fills allowed in disposal area. Septic tank needs to be brought to grade, risers with appropriate water tight gaskets. A filter must be fitted on effluent side of septic tank, (OSI biotube effluent filter or equivelent). Deviation from this plan will render this design invalid.



SEPTIC TANK - 1000g

NOTES:

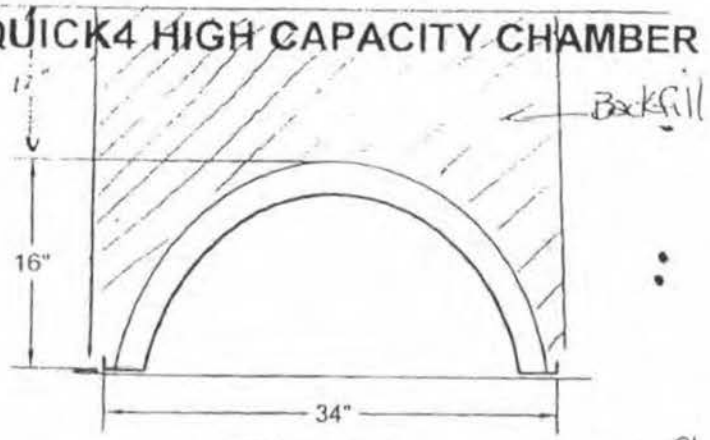
Ensure gravity drainage to disposal field.
Follow Infiltrator Installation instructions. Splash plate is required for all Infiltrator Installations. Ensure all setbacks are met.
Keep disposal trenches level.



High Capacity Infiltrator Chamber, to factory and County installation requirements

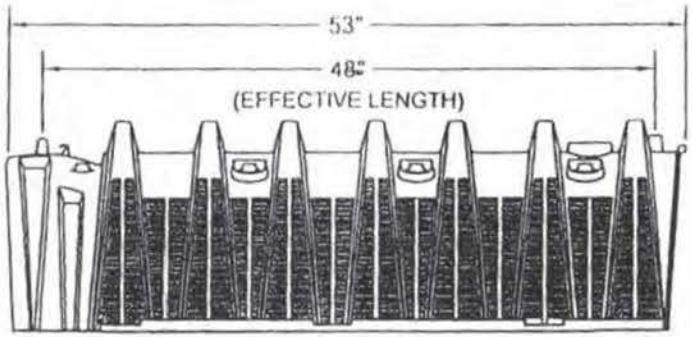
SPECIAL DESIGNS REQUIRE OPEN INSPECTION BY DESIGNER

QUICK4 HIGH CAPACITY CHAMBER



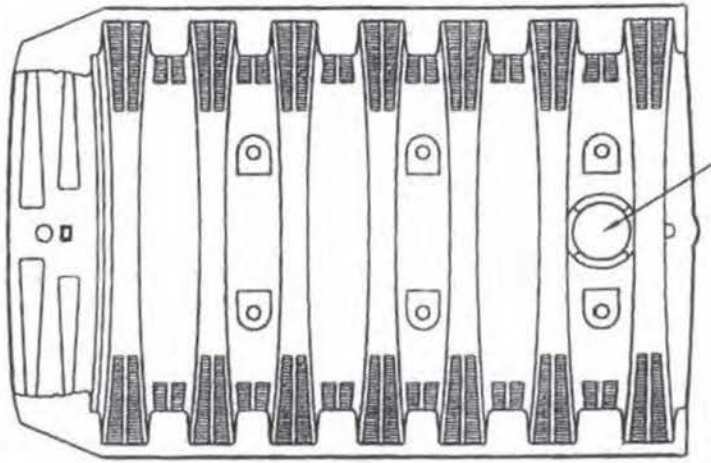
SECTION VIEW
1" = 16"

5.0 sq ft / ft
~~20.0~~ sq ft / 4' section

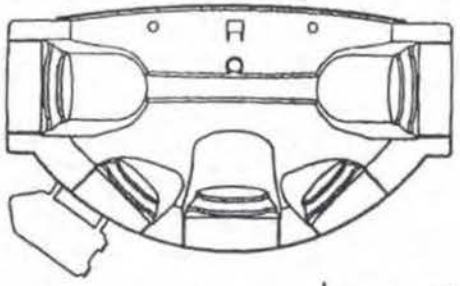


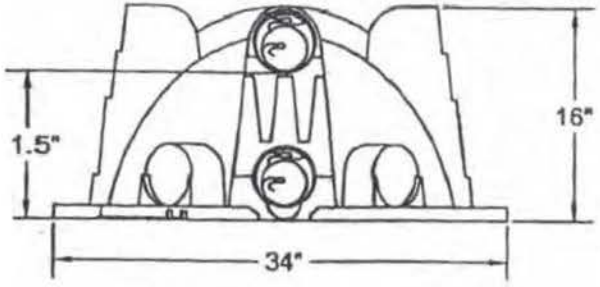
SIDE VIEW

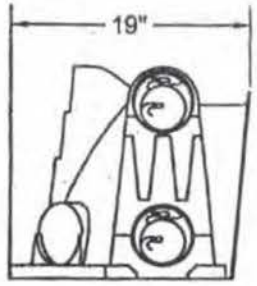
TOP VIEW



MULTIPORT END CAP







INFILTRATOR SYSTEMS, INC.
6 BUISNESS PARK ROAD
P.O. BOX 768
OLD SAYBROOK, CT 06475
PH. (800) 221-4436
FX. (860) 577-7100
WWW.INFILTRATORSYSTEMS.COM

INFILTRATOR
QUICK4 HIGH CAPACITY
CHAMBER DETAIL

Scale	NOT TO SCALE	Checked	DFH
Date	01/21/2005	ACAD No.	
Drawn By:	RCP	Sheet	1 Of 1

Joseph D. Norton
P.O. Box 11
Pacific House, CA 95725
(916) 644-4886

REPORT OF PERCOLATION TEST

Location of Property off Oma Ranch Rd; 2.3 miles E of Mt Aukum Rd
Owner/Builder Bill Kincaid Parcel No. 35:130:36 (10 ac)
Address 7081 Calcite Dr, Diamond Springs Phone 626:7823
Weather clear: 90° No. of holes tested 5 Test Date 7-27-83
Depth of holes tested #1 102 #2 21 #3 60 #4 _____

SOIL PROFILE

sandy loam underlain by granite at depth

1.04
1477
1503

DATA OBTAINED FROM PERCOLATION TESTS

Time	Hole #1 Depth to Water	Hole #2 Depth to Water	Hole #3 Depth to Water	Hole #4 Depth to Water
10:00	0	0	0	
10:10	4.2	3.18	3.5	
10:20	5.25	1.4	1.95	
10:30	7.00	2.0	1.5	
10:40	3.4	1.25	.5	
10:50	2.4	.75	.4	
11:00	2.75	.25	.4	

EL DORADO COUNTY
RECEIVED
AUG 1 1983
DIVISION OF ENVIRONMENTAL HEALTH

Stabilized Rate (min/in.) for Hole #1 3.6 #2 40 #3 25 #4 _____

Average percolation rate 23 min./inch

REGISTERED GEOLOGIST
JOSEPH D. NORTON
NO. 3784
STATE OF CALIFORNIA

Tests made by [signature]
3784

A-P[illegible] 95-[illegible]

Joseph D. Norton
P.O. Box 11
Pacific House, CA 95725
(916) 644-4886

SEPTIC SYSTEM DESIGN CALCULATIONS

Name Bill [illegible]

Location S. of Omo Ranch Rd., 2.3 mi E of Mt Aukum 23

1. Percolation Rate = 23 minutes per inch
2. Application Rate = $\frac{5}{\sqrt{T}}$ = 1.04 gallons/sq.ft./day
3. Flow Rate = (220 gallons/bedroom/day) x (7 B.R.) = 1540 gal./day
4. Absorption Area = $\frac{(1540) \text{ gal./day}}{(1.04) \text{ gal./sq.ft./day}}$ = 1480 sq. ft.
5. Leach Field Calculations

   Absorption Area (sq.ft.) = 2(W + L) (H - 1.5)

   Total Length: 165 ft. of 2 ft. wide x 6 ft. deep
6. Groundwater Depth > 11'
7. Soil Depth > 11'
8. Water Source Well

REGISTERED GEOLOGIST
JOSEPH D. NORTON
NO. [illegible]
STATE OF CALIFORNIA