KJELDSEN BIOLOGICAL CONSULTING
Chris K. Kjeldsen Ph.D., Botany
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923 St. Helena Ave.
Santa Rosa, CA 95404

Date: May 28. 2019

To: Julia Acker Krog **-** Chief Planner
County of Mendocino
Planning & Building Services
860 N Bush Street
Ukiah, CA 95482

Re: Coastal Act Compliance Report - Caspar Point Subdivision
T.R. Paradise & F. Davidson
12521 Seadrift Avenue
Caspar, CA 95420
Mendocino County

Daniel Harrington Environmental Scientist California Department of Fish and Wildlife (CDFW) provided comments following his on-site review 7/18/18, revised Coastal Act Compliance Report August 2018 by Kjeldsen Biological Consulting, for a single-family residence within the Caspar Point Subdivision.

The information provided in this letter is based on the email from Daniel Herrington, CDFW to Julia Acker Krog, Chief Planner for the County of Mendocino requesting additional information and clarification dated 5/9/2019.

The attached information is provided to allow for a meaningful review by the County.

Presence of a Watercourse / Wetland Mapping

The Coastal Commission's definition requires that wetlands must have one or more of the following three attributes:

(1) At least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover);
(2) The substrate is predominantly undrained hydric soil; and
(3) The substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season (Cowardin et al., 1979).

The wetland mapping as shown in pages 4 to 6 of our report, was delineated in the field based on the dominance of greater than 50% hydric vegetation and fully saturated soil conditions during our site visits following rainfall events. Hydric vegetation consisted of 50% *Holcus lanatus* and 50% *Rubus ursinus*. Both of these plants area considered Facultative (FAC) indicators. Equally likely to occur in wetlands and non-wetlands, National List of Plant Species that Occur in Wetlands.

We agree with CDFW that development within 100-feet of this feature will not be a significant impact. A Buffer Zone Reduction Analysis is included in our Coastal Act Compliance Report. This analysis is required to justify the reducing the required 100-foot buffer to 50-feet from the Seasonal Wetland Swale.

Potential Presence of Plants

Recommended that the Coastal Act Compliance Report be corrected regarding presence of several species "Lack of mesic habitat" and "lack of riparian habitat"

We conducted a full seasonal botanical survey on the property. Field work was conducted on September 4, 2015, January 24, February 6, 15, March 22, April 3, May 15, and June 12, 2016. Our survey was adequate to identify the potential presence of local or regional special-status plant species

Our seasonal surveys did not reveal the presence of any of the species associated with mesic habitat as shown in column 5 of the table in the report. The table in our report does not dismiss the potential for presence however, the absence of findings, the historic use of the site, the seasonality of mesic conditions, and the number of non-native species reasonably precludes presence. All plants encountered during our survey were recorded. Our survey does not focus on plants in the table but all special-status plant species.

Bird Nesting Habitat / Swale Function as a Wildlife Corridor

Page 24. Coastal Act Compliance Report August 2018. "The property has potential nesting habitat in trees, standing snags, and shrubs. Protection of the eastern portion of the property in its natural state will continue to provide potential nesting habitat on the property."

Page 24. Coastal Act Compliance Report August 2018. The seasonal wetland swale on the property can function as a wildlife corridor allowing movement through the property. This area will remain intact and will continue to function as a wildlife corridor.

Request for Map of Dead Trees that will be Removed

A GPS map of all dead trees on the property is attached. It is projected that 20 to 25 dead trees will be removed (Many trees, related branches, and debris on the property have been identified by CalFire as high-risk and requiring removal).

Contradictory Statements

The ESHA on the property is a Shore Pine Woodland of *Pinus contorta* subsp. *contorta*. Pinus contorta subsp. *bolanderi* was incorrectly stated by the land owner in a 19 October, 2018 letter to Julia Acker-Krog.

Assertion that there is not habitat for frogs of the Rana genus.

Foothill Yellow-legged Frog (*Rana boylii*) The wetland swale does not contain habitat for this species. This species requires flowing water with open banks which is not present on the property.

Northern Red-legged Frog (*Rana aurora*) Our reports states "No pools sufficient for breeding. Seasonal Swale only conveys water during storm events". During our field surveys we did not observe any open pools. Water in the wetland swale is completely covered in vegetation and does not contain open pools. Surface water in this feature is only present 5 to 7 day following rain fall events.

California Red-legged Frog (*Rana draytonii*) genetic studies have shown that the California Red-legged Frog is not known north of Point Arena.

Recommendation for a Wetland Delineation

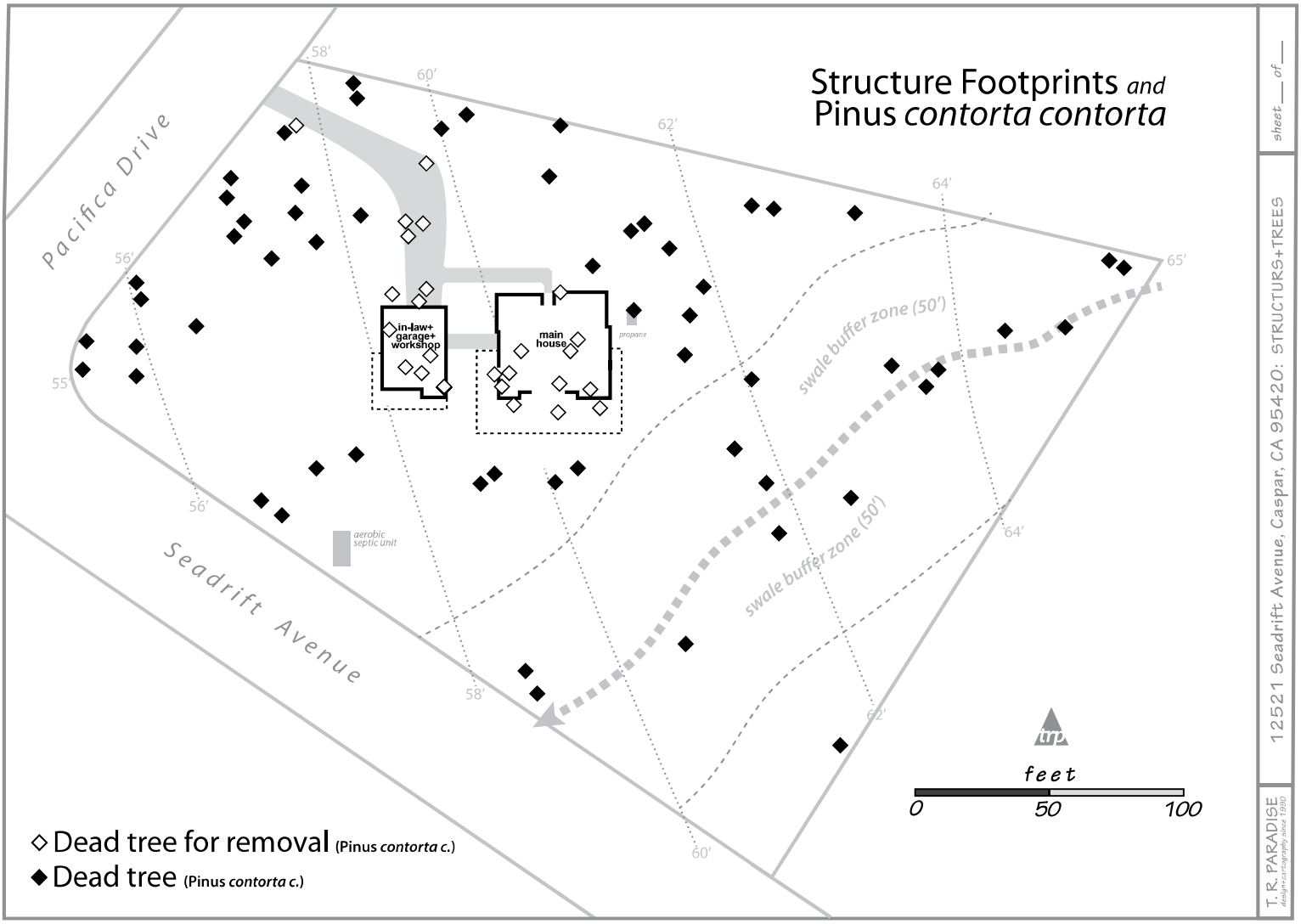
In our professional opinion a Formal Wetland Delineation is not necessary and will not change the boundary or location. The area has been delineated in the field and mapped, and a Formal Wetland Delineation is not necessary for the County to review the project and assesses the projects potential impacts.

Loss of Sensitive Habitat

See Attached Proposed Revegetation Plan

Should you have any questions, please do not hesitate to contact us at: Telephone (707) 544-3091, Email kjeldsen@sonic.net, or Fax (707) 575-8030. Thank you for the opportunity to clarify the above material.

Sincerely,
Kjeldsen Biological Consulting


Structure Footprints and
Pinus contorta contorta
Pacifica Drive
Seadrift Avenue
58′
60′
62′
64′
65′
56′
55′
in-law+
garage+
workshop
main
house
propane
aerobic
septic unit
swale buffer zone (50′)
swale buffer zone (50′)
feet
0
50
100
◇ Dead tree for removal (Pinus contorta c.)
◆ Dead tree (Pinus contorta c.)
sheet ___ of ___
12521 Seadrift Avenue, Caspar, CA 95420: STRUCTURS+TREES
T. R. PARADISE
design+cartography since 1990

Proposed Revegetation Plan

Caspar Point Subdivision
12521 Seadrift Avenue
Caspar, CA 95420
Mendocino County

Goal of Revegetation Restoration Plan

It is the goal of this Planting Plan is to replant pine trees *(Pinus contorta ssp. contorta)* for the loss of Shore Pine Forest ESHA, that will be removed during the construction of a single-family residence on the property. (See Plate I Planting Plan)

The 2property is located at 12521 Seadrift Avenue at the corner of Seadrift Avenue and Pacifica Drive on the west side of State Highway 1. The site is within the USGS Mendocino Quadrangle.

The project proposed the removal of approximately 9 pine trees *(Pinus contorta ssp. contorta)*. (See Plate I Tree Count)

The project also proposed to remove non-native plants. Invasive species to be removed are Himalayan Blackberry (Rubus armeniacus), Blue Gum Eucalyptus (Eucalyptus globulus), Gorse (Ulex europea), Scotch Broom (Cytisus scoparius), and Ivy (Hedera helix).

Location of Plantings

The area proposed for re-vegetation is proposed along the eastern side of the property. The site is on lands under the ownership of the applicant. The proposed re-vegetation site will have available water for establishment and an onsite owner with experience in maintaining native vegetation.

Replacement Plantings

The table below summarizes the proposed replant numbers. Replanting is proposed at a 3:1 ration for trees removed.

Table II. Proposed Native Tree Species for Site Restoration

Scientific Name	Common Name	Number of Plants
Pinus contorta ssp. contorta	Bishop Pine	27

Spacing: = Average 10 feet on center in a random irregular non linear pattern. (See Plate II Planting Location)

Planting Design and Layout: Because of the site variability, it is highly recommended that the individual plant locations be selected in the field. The design layout will be flagged in the field prior to planting and reviewed by a qualified biologist/horticulturist.

Planting Stock: It is proposed that planting stock be purchased from local native plant nurseries or grown onsite. Recommended planting stock of one gallon size or equivalent.

Plant Protection: All plants should receive a 3'x3' woven polypropylene weed mat. The mats will be secured to the ground with heavy gauge steel staples or pins. The weed mat will serve as mulch for soil moisture retention and weed suppression purposes. Woven polypropylene is recommended over other weed control fabrics because of its durability and resistance to punctures. Because rodents are active near the project area, all planting stock should also have browse protection.

If tubes are used (such as Tubex®, BluEx®, or similar product) it is recommended that grow tubes which are specifically designed for restoration activities be used. Protective bird netting must be installed atop of the grow tubes, if tubes are used. Collar and screen hardware may be an option if a restoration contractor is used for the plant installation.

All plant protection hardware should be removed at the end of the project monitoring period or when plants are established, typically three years after installation. Failure to remove planting hardware may ultimately lead to plant mortality.

Nutrients: All plants should be given an appropriate amount of fertilizer at the time of planting to promote healthy growth in the first growing season. General purpose, slow release fertilizers, such as Ozmocote® 14-14-14 or Agriform® pellets are commonly used in plant installations. It is important that the fertilizer is applied directly to the root site of the plants (sub- soil surface) to avoid encouraging weed growth.

Timing: Typically the best time of year to install native plants is in the late fall, when the soil has become adequately wet from fall rains. Getting plants in the ground early gives the plants more time to develop roots and site familiarity before breaking dormancy in the spring. Delaying planting into the late winter and spring, can decrease planting success if an irrigation system is not online.

Irrigation: To minimize drought stress and to encourage successful establishment, the plants will be irrigated during the dry season. The first year of establishment is the most critical, and supplemental irrigation may be needed for the first three to five years. A simple above-ground drip irrigation system is recommended (it may be that hand watering can be used since the site is so small). All woody plants should be targeted with drip emitters. The irrigation system should run at regular intervals and the system should be checked on a regular basis to insure that the system is functioning properly and that the plants are getting the proper quantity of water. A typical irrigation regime for a first year of project is a once weekly watering of one to three gallons per plant, lengthening the period between watering to two weeks may be adequate during subsequent years.

Irrigation should be activated in the spring when soil on the site begins to dry out from winter rains, typically in mid to late April. Drought conditions may require an earlier activation date, and heavier spring rains may allow for a later activation date. Irrigation to the site would typically be shut down by mid-October. Early fall rains may allow for an earlier shut down date, and a prolonged fall drought may require that irrigation occur later into the fall.

Maintenance: Weed control can be just as important as irrigation during the first few years of native planting. Weeds directly compete with the plantings for water, light, and nutrients. Heavy weed growth can also provide habitat for rodents, such as mice, voles, and gophers, which can girdle young plants and damage drip irrigation lines.

Hand Weeding: Spring hand weeding of all weeds growing inside the plant protection hardware and weed mat openings will have the most profound positive effect on the young plantings. It is important to carefully perform hand weeding when weeds have not become too large and the soil is still soft and moist from winter rains. Periodic hand weeding may be necessary throughout the growing season if irrigation is used. It is very important that crews performing hand weeding are familiarized with the different species selected, so that the project plants are not accidentally damaged or removed.

Weed Mowing/Weed-Eating: It may be desired by the property owner and/or property manager to mow weeds in the project area. Weed removal can also be very beneficial to the plantings, as long as great care is taken not to damage the plants, plant protection hardware, weed mats, or the irrigation system. It is very important that personnel performing weed-eating be shown the various elements of the enhancement planting and that steps be taken to prevent any damage to the plants, hardware, or the irrigation system.

Time Line

- Planting/ Seeding — Winter following Permit Approval and or Tree Removal.
- 1st Monitoring Report — First Fall following Instillation

Monitoring Plan

Project Monitoring

A monitoring plan is essential for assurance of the goals of the revegetation plan. The monitoring plan proposed is an assessment of the project upon completion of the prescribed work at the end of five years. At the end of five years a total survivorship should be 80% of the total planted stock, and removal of 90% of non-native species (Himalayan Blackberry, Blue Gum Eucalyptus, Gorse, Scotch Broom,and Ivy) on the property.

To ensure a successful revegetation effort all plantings shall be monitored (survival counts and photo monitoring) and maintained as necessary for a minimum of five years.

Performance Standard

Pinus contorta ssp. contorta A performance standard of 80% survival of planted stock at the end of the monitoring period is proposed as a success standard for compliance by this project.

Non-native plants A performance standard 50% removal of Himalayan Blackberry (Rubus armeniacus), Blue Gum Eucalyptus (Eucalyptus globulus), Gorse (Ulex europea), Scotch Broom (Cytisus scoparius), and Ivy (Hedera helix) at the end of three years and 90% removal at the end of five years.

If the survival and or removal requirements are not meeting these goals, the permittee is responsible for replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for five years after planting.

A report will be filed with Mendocino County at the end of each monitoring period. Monitoring should be conducted in the fall a year following planting. Monitoring reports should be submitted to the by October 15th of each year.

Annual maintenance visits will include inspection for any evidence of vandalism. Observed evidence of excessive human disturbance will be recorded, along with remedial action(s) being taken. Photos will be taken from the same points every year.

Monitoring Report Contents

1.0 Project Information
    1.1 Project name
    1.2 Applicant name, address, and phone number
    1.3 Consultant name, address, and phone number
2.0 Mitigation Site Information
    2.1 Location of the site (including regional map)

2.2 Specific purpose/goals for the mitigation site
2.3 Date planting was completed
2.4 Dates summary of previous monitoring visits
2.5 Name, address, and contact number of responsible parties for the site
2.6 Summary of remedial action, if any

3.0 Tabulated Results of Monitoring Visits, Including Previous Years.
4.0 Summary of Field Data
5.0 Photo Monitoring
6.0 Problems Noted and Proposed Remedial Measures

Location Map
Site Map

Contingency Plan and Adaptive Management

Death of the planted stock will necessitate replanting. Yearly monitoring for achievement of the success will identify problems and remedial adaptive management to correct any problems will be implemented.

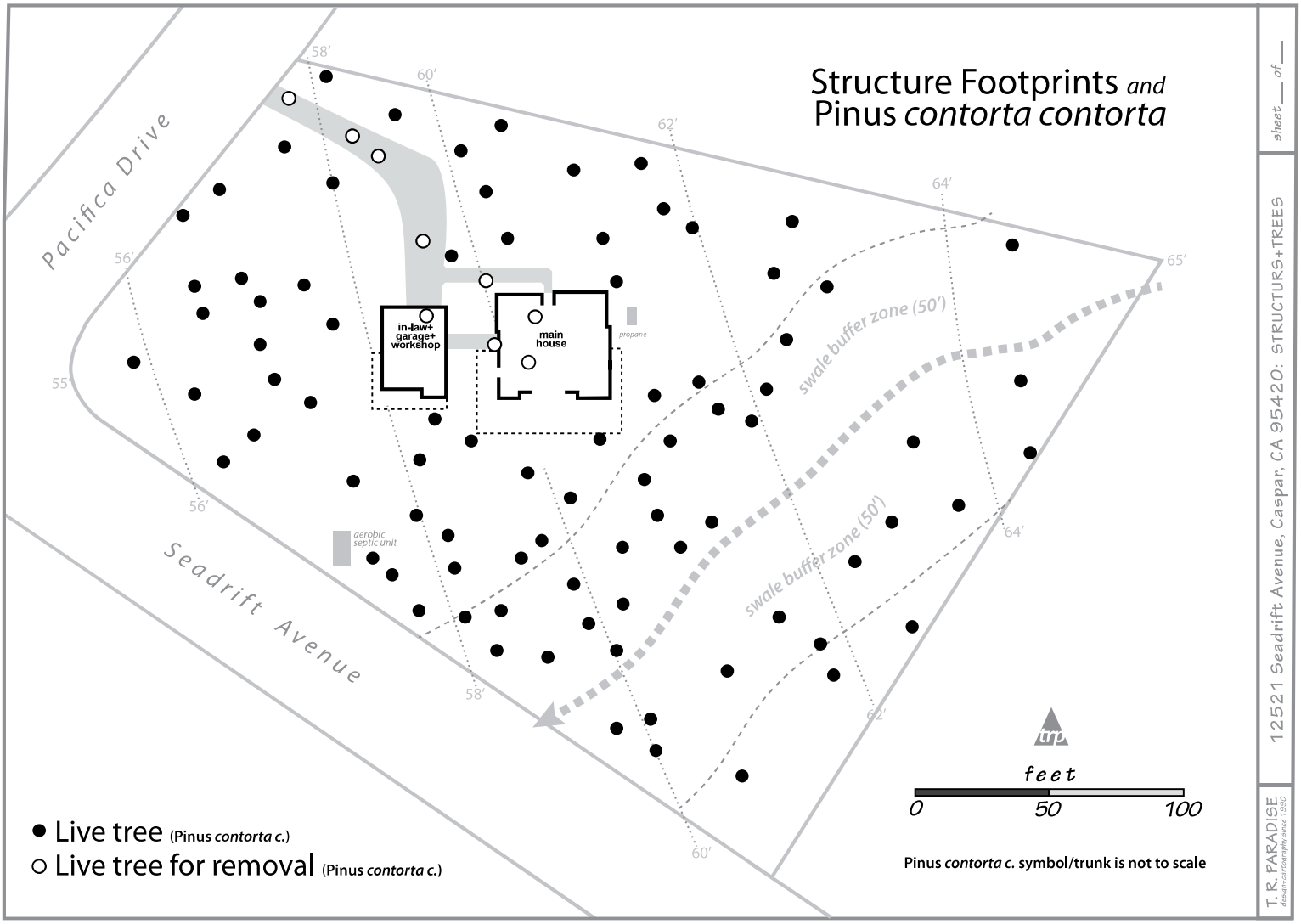
Responsible Party for Short –Term and Long-Term Maintenance

Tom Paradise and Fiona Davidson
12521 Seadrift Avenue
Caspar, CA 95420

It is the owner's responsibility to submit reports or contact a qualified biologist to conduct monitoring and submit monitoring reports.

Should you have any questions, please do not hesitate to contact us at: telephone (707) 544-3091, Email kjeldsen@sonic.net, or by fax (707) 575-8030.

Plate I. Map of Live Tree for Removal
Plate II. Planting Location


Structure Footprints and
Pinus contorta contorta
Pacifica Drive
Seadrift Avenue
58′
60′
62′
64′
65′
56′
55′
in-law+
garage+
workshop
main
house
propane
aerobic
septic unit
swale buffer zone (50′)
swale buffer zone (50′)
feet
0
50
100
● Live tree (Pinus contorta c.)
○ Live tree for removal (Pinus contorta c.)
Pinus contorta c. symbol/trunk is not to scale
sheet ___ of ___
12521 Seadrift Avenue, Caspar, CA 95420: STRUCTURES+TREES
T. R. PARADISE
design+cartography since 1990

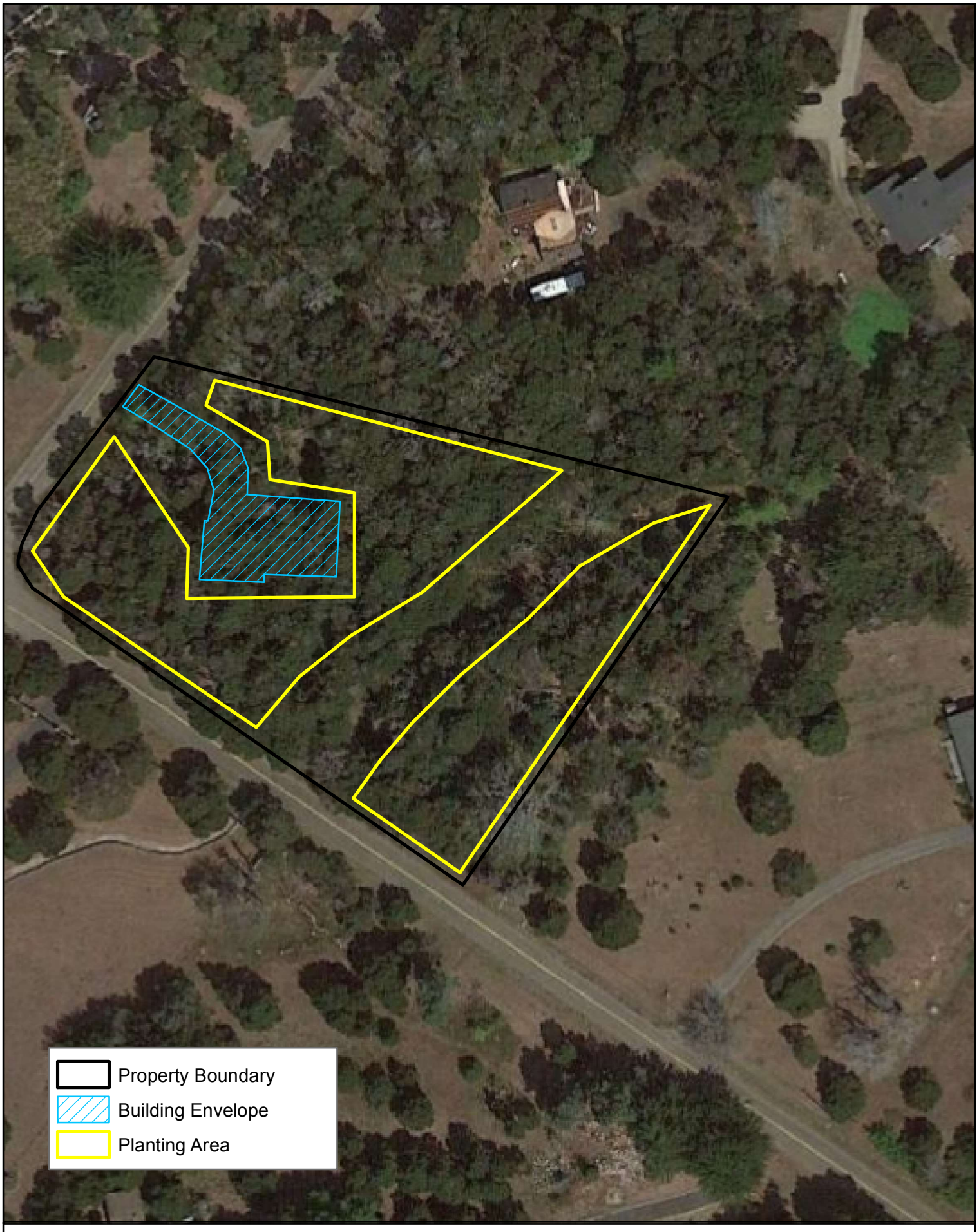


Plate II. Planting Area