January 18, 2022

Patrick S. Campbell Community Association Manager Encinitas Ranch Homeowners Association

RE: Encinitas Ranch Community Forest Review

Dear Mr. Campbell,

This is the report that you requested regarding the Community Forest and its management at the Encinitas Ranch HOA.

ASSIGNMENT

I was asked to provide an opinion regarding the quality of the tree pruning being performed on trees owned and managed by the Encinitas Ranch HOA. I was also asked to review pruning work proposed by for 2022.

BACKGROUND

I was contacted by Mr. Patrick Campbell the Association Manger of the above referenced project. He explained that the Association wanted a review of the pruning work that has been done and the pruning work proposed for 2022.

Initial points;

- Pruning was reviewed for technical competency
- Pruning was not reviewed for aesthetics
- Pruning was mostly reviewed by driving the community
- Operational Objectives document is mostly procedures
- ANSI Standards Should have pruning specifications
- ANSI Standards Other components not followed
- Pruning Work is mostly technically acceptable
- A tree that does not "need" to be pruned can be pruned without running the tree
- All pruning cuts are wounds
- Pruning cycle extremely excessive
- Suggest that the diagnostic model be followed
- What did you get for your \$\$\$?

PRUNING WORK REVIEW

We begin with a simple question. When it comes to tree pruning, what do you want?

A review of the community trees was done by driving the community with Mrs. Sandy Gallagher. This review was done on two days (10/25/21 & 11/03/21). The review was completed by driving the community and observing the trees in their current condition. I also performed a close inspection on several randomly chosen trees.

Please note that the Operational Objectives document I was provided contains a mixture of objectives, procedures and definitions. This document should be divided into three sections, so each category is easily identified. (I have highlighted the three categories and included the highlighted document as Appendix B, blue is a procedure, yellow is an objective, red is a definition.).

For instance, Item #2 "Climbing spurs shall not be used when climbing trees, except for whole tree removals or to perform an aerial rescue." This is an operational procedure that tells us nothing relative to the tree pruning objective.

Most of the document is procedural except for items # 17 and #18. Item #17 does speak to important pruning objectives relative to clearance pruning and includes some procedure. This makes item #17 a hybrid objective/procedure. Item #17a. is an objective stating "clear the crown of diseased, dead, dying and weakly attached wood" the problem is we do not know which trees specifically this applies to nor do we have written specifications that coincide with the objective. Item 17e. is frivolous in my opinion. In addition, I understand that the contractor has been working on the Association's trees for many years. Why are there stubs at this point?

Item 18 is simply a restating of the pruning definitions as described in the ANSI A300 standards with some additional language. These definitions are not pruning objectives at all. Of particular peculiarity is 18 a) Structural Pruning i). "This is the pruning method for all tress (sic) even if the work-scope pruning specification for the species differs". What is the reason to structurally prune all trees? Do they are really need structural pruning? (I say NO.) I would say the "kitchen sink" approach has been implemented in this case. All 1,668 trees are to be structurally pruned? Nonsense! According to the definition they have all been structurally pruned in the previous pruning cycles. Do they ever have their "Defective" structure fixed? Ever?

I would consider selecting 50 (3%) trees at random and have the contractor show why the trees that have been structurally pruned the last two pruning cycles need structural pruning again this year.

Then to make things interesting chose two of the people doing the work and have them separately show you on 18 (1%) trees which branches they would remove to accomplish the structural pruning. This of course is to be done in such a manner that neither one

knows what the other chose. (You can have them tie ribbons on the branches they would remove and take photos, removing the ribbons so as not to show what was previously chosen.). This is not to embarrass anyone or question their qualifications but to demonstrate that structural pruning means different things to different tree workers.

When I did it for a client the results were illuminating to say the least. (There was far from universal agreement on what to remove).

Some examples of objectives are;

- · Reduce pests and diseases
- · Provide Clearance
- · Restore damaged trees
- · Reduce Height or spread

So, I don't say the objective is to prune or maintain the tree. This is vague and unclear. I might say "The objective is to reduce tree height so it no longer blocks the traffic light". Then I specify the amount of reduction. The objective is the reason for making a cut to a branch or removing a tree.

So, in the absence of clearly written objectives for trees not needing clearance pruning and the absence of detailed pruning specifications it is difficult to say if the trees were pruned as intended. (The intention has not been defined). Also, I am not considering aesthetics as part of my review. I am strictly considering horticultural or practical (typically clearance pruning) requirements. Additionally, my review was not a risk assessment. However, having said that I offer the following opinions your consideration.

The pruning work that has been performed at various times has been mostly properly performed. What I mean by properly is that most of pruning cuts conform to the current American National Standard (ANSI A300 (Part 1) -2017 Pruning). I did not see topping cuts or cuts that don't follow the desired ratio when reducing a branch. I did see what I would consider over-thinning on some trees (African fern pines for example). I know of no horticultural reason why the trees should be "opened" up. I saw some crown raising that was performed for vehicle clearance which is an acceptable practice. (Vehicle clearance is a legitimate objective).

So, I can safely say that the tree pruning that has been performed has not "ruined" the trees. It should be noted that it is entirely possible to "prune" trees that do not need it and have a result that is acceptable from a horticultural perspective. (If we ignore the fact that pruning cuts are wounds.)

The question is did the trees need to be pruned in the first place? But wait you said that the trees were pruned as described in the ANSI A-300 document. That is true and the standards are an important guide for how work is to be performed. Sandy Gallagher informed me that according to the contractor they follow the "standards".

Let's look at some of the ANSI A300tandards;

1.2 Purpose

ANSI A300 standards are intended for the development of work practices, written specification, best practices, regulations and other measures of performance.

1.2.1 These standards may be excerpted or incorporated by reference; however, they are not intended to be adopted in their entirety into laws and regulations <u>or as work specifications</u> without additional information and clarification (see Annex B Specification writing guidelines.)

Section 2.3 Implementation

2.3.1 Specifications for pruning <u>should be written</u> and administered by an arborist or other qualified professional (see clause 4).

2.3.2 Following pruning operations, monitoring and <u>follow up recommendations</u> should be made based on pruning objective, plant condition, site/location, species and growth rate.

Section 4 Pruning Objectives

4.1 <u>One or more pruning objectives shall be specified</u> (see Annex D – Additional explanation of objectives, evolving concepts, explanation of material removed from previous versions).

4.1.1 The pruning system, ... shall be considered when establishing pruning objectives.

Section 5 Pruning Systems

5.1 A pruning system should be specified to achieve the long-term form of the plant.

6 Pruning Specifications

6.1 Pruning Specifications should include:

- · Physical location of plants to be pruned;
- · Pruning Objectives;
- · Pruning System;
- · Types pf parts to be removed (e.g. living or dead branches, fruit, mistletoe);
- Pruning amount (e.g. percent of foliage or crown, or number of branches to be removed);
- · Location in crown of parts to be removed;
- · Pruning cut types (e.g. removal, reduction, heading, shearing);

 \cdot Size range (e.g. diameter, length) of parts to be removed; \cdot Plan for disposal/repurposing of debris; \cdot Time frame for completion; and.

• Other information as necessary (e.g. topiary shape, clearance distances, desired views, lines of sight).

6.2 Pruning operations should <u>remove no more living material than what is necessary to</u> achieve specified objectives.

As we can see the standards contain a lot of information and recommendations to follow.

Anyone who claims to "follow" the standards should at least provide pruning objectives and written specifications. As I stated earlier in the absence of an objective it is not possible to determine if the intended outcome was accomplished.

In the absence of written objectives and specifications I would say that the standards are not being followed or adhered to. This is of course easily correctable by providing objectives and written specifications for all future (non-emergency) tree work.

Again, the pruning work that has been performed over the years has not ruined the trees. It is more like the trees have tolerated the treatments. We do need to remember that any pruning cut is a wound. We also need to remember that trees grow leaves for a reason and the amount of foliage on a tree (that has not been pruned) is the amount the tree needs to properly function. An interesting phenomenon occurs after tree pruning. Trees allocate resources to replace the removed foliage. Read that again. What that means is if we remove 10% of the foliage the first thing the tree does is try and replace that foliage. Kind of like shoveling snow in a snowstorm but in tree time. (Tree Time is slow).

So, one must wonder why are we removing foliage if the tree just puts it right back?

In 1994 at the annual Berkshire meeting Warren Buffet told his audience "Never ask a barber if you need a haircut". This is due to the obvious conflict of interest. I give the same advice to people who own or manage trees. Never ask a tree care company if your trees need anything (e.g. Pruning, fertilization, pest control, etc.). A second concept to consider is the Law of the Instrument. This comes into play by an over reliance on the tools of the trade. In our case if we have a pruning saw everything needs pruning.

The most logical model I have found when it comes to tree care is the Diagnostic model.

The tree is the patient. Pruning (or other activities) are the treatments. So, the question is what is wrong with the patient as such that I would prescribe a treatment? What treatment (pruning?) am I prescribing and what is the dosage (how much to remove?) This of course should be done for each tree. We wouldn't walk into an office full of human patients and recommend that appendectomies be performed on each of them. We examine each patient to determine a diagnosis. Yet we have a recommendation to Crown

reduce and structure prune 212 pink melaleuca trees on Slope 46. Well what is the diagnosis for that treatment recommendation? It's interesting that they all "NEED" the same treatment at the same time.

Which brings us to a review of the "Three Year Tree Care Proposal" I was provided. First of all, there are no pruning specifications included with what I was provided. Standards? Not met by what I have to review.

I am very curious as to how the pruning cycle was determined for several species of trees on the proposal. I have written in excess of 100 Community Forest Management plans and my typical tree pruning cycle (not including palms) is based on age class with 5 years for most trees (established juvenile and older trees) with a 3 year cycle for young newly planted trees. That's one pruning event every 5 or 3 years depending on age class and only if the diagnosis warrants it. Yet in this proposal I see pruning recommended for each of the years in the proposal for many trees. I would like to know what the objective is for pruning 155 pink melaleucas on slope 102. The recommendation is to prune 3 consecutive years by crown reduction and structure pruning. Why? Crown reduction is a process to control tree size (make it smaller) Also there are no specifications on how much to reduce, 10% ,20% etc.? What is the diagnosis that recommendation is based on? Do all 155 trees really need to be made smaller 3 years in a row? Aren't we just removing foliage that grew back after our last treatment? As far as structure pruning goes why do we need to structure prune the same trees three years in a row? Can we not correct the structure (if it really needs correction) on the first go around?

These trees are on a slope. We can just leave them alone. We may get a failure from time to time and this is most likely due to a root system issue. Many times, a recommendation is made to reduce the canopy so the tree doesn't fall over. The irony here being that once we remove foliage the tree allocates resources to replace the removed foliage which causes root growth to slow or stop while the tree replaces what was removed. This is the opposite of what we want. We want a stronger root system not to interrupt its growth.

Based on my observations of the trees in the community I believe that other than clearance pruning and palm pruning (to remove nuisance fruit and dead fronds) the pruning recommended for 2022 is excessive and will not improve tree health and is not necessary from a horticultural perspective. I did not inspect the trees in area 12 that call for Safety pruning. When I see safety pruning, I often wonder what makes the tree unsafe? Is it unsafe now and we are risking damage if we wait or will it become unsafe just in time for it to be pruned? Inquiring minds. If through observation we think trees might be unsafe a Tree Risk Assessment can be performed to arrive at an opinion regarding safety and what, if any, action is required to mitigate safety issues.

Another item to consider is the tree reaction to pruning. The reaction to pruning is determined by the time of year, amount removed and the energy reserves in the tree at the time of pruning.

If the desired objective is size control (clearance, crown reduction) then the time of treatment should coincide with the time we expect the least response growth. Remember we are controlling size. In our climate we can expect the least response right after leaf maturation. This means late spring or early summer and certainly not January. In January the tree will have a full "tank" of energy and the growth response will be the most and we will get new growth at a time of year we do not want and of course we will need to prune it off sooner than we want.

The Chinese elms on Lynwood have a recommendation of crown reduce, raise and clear. I specifically went to look at those trees this week and see no reason for a reduction treatment at this time. There may be a few that would accomplish the clearance objective by raising but there are not 71 trees in need of treatment.

I know a three proposal helps determine budgets, but I can't for the life of me figure out how to arrive at a pruning diagnosis 36 months from now without inspecting the tree. In regard to aesthetics my question is who is the decider? What may be aesthetically pleasing to one person may be offensive to another.

Here's a good question to ask someone who recommends a certain treatment (typically pruning) for your trees. What happens if I don't do what you suggest? For instance, Area 6 has camphor trees recommended for structure prune and clear. What happens if we don't do that? And when will it happen? Can you show me some data to support your answers? The answers invariably include the weasel words "may" "potential" "possible" and "could" as far as when "anytime"," soon" "you never know", "can't say for sure" and on and on with no specific answers. As far as data there is none.

When someone presents you with a proposal to perform work you should always ask what exactly am I getting for my money? In this case, What exactly does \$76,000 buy me that I did not have before?

In summary, Never, ask a barber if you need a haircut, use the diagnostic model when deciding what to prune and consider the growth response when scheduling work to be done.

We end with a simple question. When it comes to tree pruning, what do you want?

Sincerely,

Tim Clancy

Tim Clancy

American Society of Consulting Arborists - Registered Consulting Arborist #712 American Society of Consulting Arborists - Tree and Plant Appraisal Qualification International Society of Arboriculture - Certified Arborist No. WE-0806A International Society of Arboriculture - Tree Risk Assessment Qualified California Department of Pesticide Regulation Qualified Applicator License - No. 115841

Attachments Appendix A Photos Appendix B Highlighted Operational Objectives

Appendix A Photographs

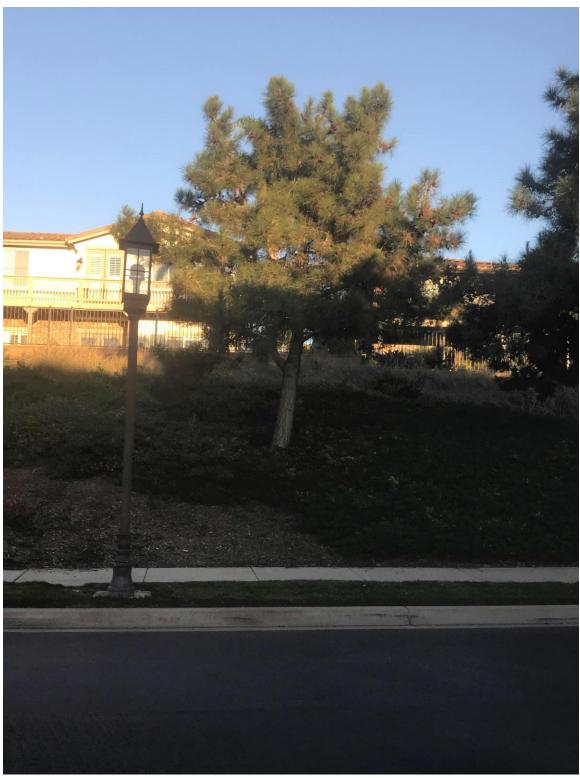


Photo 1: Pine on slope needs no pruning. ne



Photo 2: Camphor tree interior stripped out needs to be left alone.

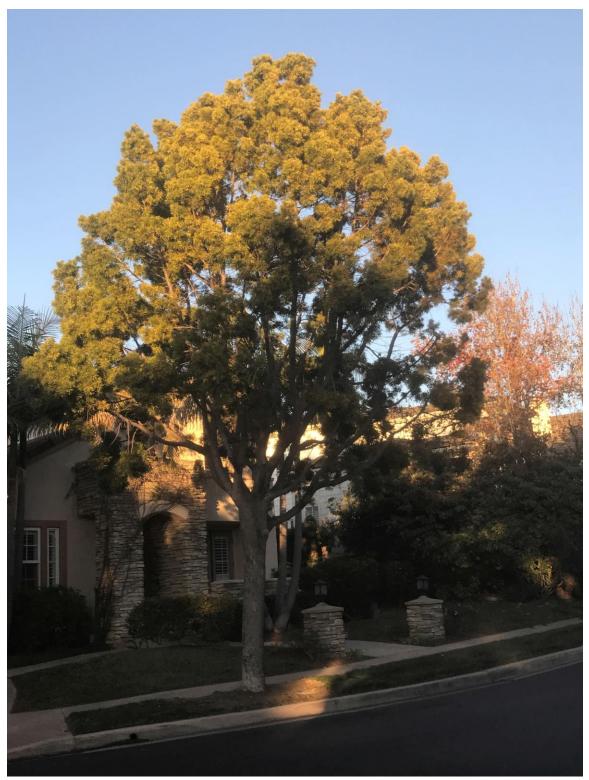


Photo 3: African fern pine over-thinned. No light should make it through.

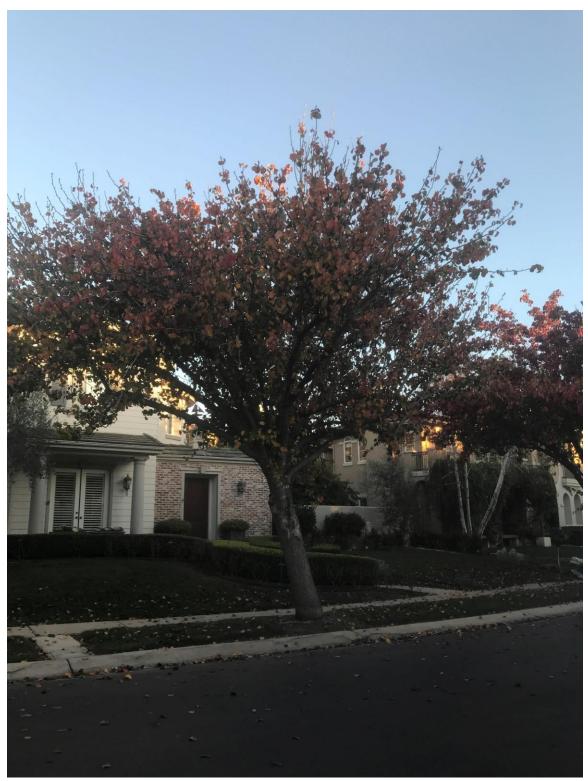


Photo 4: Bradford pear, if this tree was structurally pruned in the past I want a refund!



Photo 5: Oak tree that has not been mutilated. This is the goal.

Appendix B Operational Objectives Highlighted



Operational Objectives

1. All pruning should be supervised or performed by a qualified ISA Certified Arborist or Tree Worker.

2. Climbing spurs shall not be used when climbing trees, except for whole tree removals or to perform an aerial rescue.

3. Ropes and rigging devices shall be used to reduce damage to trees, turf and other obstacles in the landscape.

4. Cut branches with sharp pruning instruments without leaving stubs; use proper methods to avoid damaging the bark, trunk other limbs.

5. Tools used to prune trees that are known to have disease problems (fire blight, fuscarium wilt, etc.) shall be treated with disinfectant (Lysol or equivalent) before and after pruning each tree.

6. Trees to be worked on must be barricaded off with the use of tape and/or cones during the work to keep pedestrian traffic from crossing into the work area.

7. The contractor shall supply all materials, equipment and personnel necessary for the performance.

8. All equipment must be in compliance with all applicable federal, state, and local rules and regulations.

9. Contractor to maintain a clean work environment at all times by organizing materials in locations designated by manager and keeping these locations free of trash and debris.

10. Contractor shall take every precaution to avoid damaging any buildings, block walls, irrigation system or existing plants while trimming or removal of any existing trees.

11. While in tree, the climber shall perform and aerial inspection to identify defects that require treatment. Any additional work shall be reported to the consultant, manager, owner, or supervisor.

12. Pruning cuts that expose heartwood shall be avoided whenever possible.

13. Interior branches shall not be pruned out when possible.

14. Heading cuts shall be avoided unless otherwise specified.

15. Pruning cuts larger than 4 inches in diameter, except dead wood, shall be avoided.

16. No more than 25 percent of live foliage shall be removed from a broadleaf tree each growing season; no more than 20 percent for conifers unless otherwise specified.

17. All broadleaf and coniferous trees within the project area, as listed in the job scope, shall be pruned to accomplish the following objectives:

a. clear the crown of diseased, dead, dying and weakly attached wood;

b. provide 14 feet of vertical clearance over the streets and 8 feet over the sidewalks;

c. provide 3-5 feet of building clearance;

d. clear foliage 3-5 feet from light posts, street lamps, or street signs;

e. remove stubs, cutting outside the wound wood tissue that has formed around the branch.

18. Pruning cuts, methods and operations as described by the International Society of Arboriculture in Best Management

Practices (BMP) and the American National Standard for Tree Care Operations (ANSI A300) shall be used, in addition to:



a. Structural Pruning

i. This is the pruning method for all tress even if the work-scope pruning specification for the species differs.

ii. Removal of live branches and stems to influence the orientation, spacing, growth rate, strength of attachment, and

ultimate size of branches and stems. Helps create a sustainable trunk and branch arrangement that will survive in the landscape longer.

iii. No more then (20-25%) of the crown should be removed in one growing season, depending on whether the tree is an angiosperm or gymnosperm.

b. Crown Clean

i. Usually performed on medium-aged to mature trees. Preferred pruning type for mature trees.

ii. Remove dead, diseased, detached, cracked, and broken branches. Cuts into live tissue should be avoided unless for structural or safety reasons.

c. Crown Thin

i. Common, natural pruning technique in warm, well-irrigated areas.

ii. Retains crown shape and size unless building clearance or some other specific objective is involved.

iii. Selective removal of small live branches to reduce crown density, primarily performed on the outside edge of the crown.

No more then (25%) of the crown should be removed in one growing season. The pruning should be limited to avoid producing reactionary growth.

iv. Includes limb reduction of end-heavy, drooping branches, especially in species like Liquidambar, Pinus, Eucalyptus, etc.
Branches growing over houses should be reduced appropriately to reduce risk, depending on the species and situation.
v. Removal of lower limbs shall be avoided to ensure proper trunk taper development and live-crown ratio.

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d. Crown Raise (Lift)

i. Provides clearance for buildings, signs, vehicles, pedestrians, and vistas. Selective removal or reduction of lowers branches to provide vertical clearance.

ii. Excessive removal of lower limbs shall be avoided to ensure proper trunk taper development and live-crown ratio. May require several years to complete in order to maintain an optimal live-crown ratio.

e. Crown Reduce

Used to minimize risk of failure, to reduce height or spread, for utility line clearance, and to clear vegetation from growing over buildings or other structures. Selective removal of branches and stems to decrease the height and/or spread of a tree.
Reduction cuts are usually performed on smaller-diameter branches between 1 to 4 inches. The lateral branch that assumes the terminal role should be no smaller than one-third the parent branch. No more the (25%) of the crown should be removed in one growing season.

f. Crown Restore

i. Remedial pruning is the selective removal of branches, sprouts, and stubs from trees that have topped, severely headed, vandalized, lion tailed, broken in a storm or otherwise damaged. The primary goal to crown restoration is improved structure, form or appearance. May require several years to complete. May also require multiple events in one year.