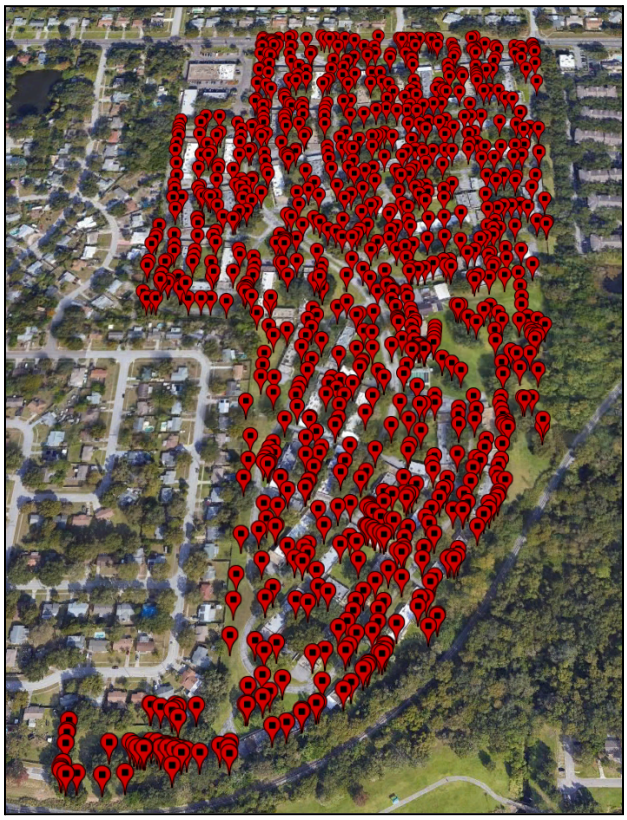
Mission Hills Condominium Association, Inc.
Tree CheckUp Scorecard™

October 16th, 2023



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Introduction:

I'm pleased to present the Tree CheckUp Scorecard report on the trees at Mission Hills.

Overall, over 970 trees were assessed throughout the community. There is a broad diversity of trees ranging from your Live Oaks down to invasive species such as Brazilian Pepper. Regardless of species, it is clear that your trees are integral to the community and valuable assets deserving special attention.

This document is divided into two main sections, followed by the maps and spreadsheet. The first section presents information about the main criteria assessed and general trends. The second section relates directly to future management and work priorities. Some readers may go directly to the **intuitive** **mapping section**, which gives a good overview of the Tree CheckUp Scorecard.

While this document is not intended to be exhaustive, it provides the framework necessary to manage the Mission Hills trees successfully.

Your Trees by the Numbers:

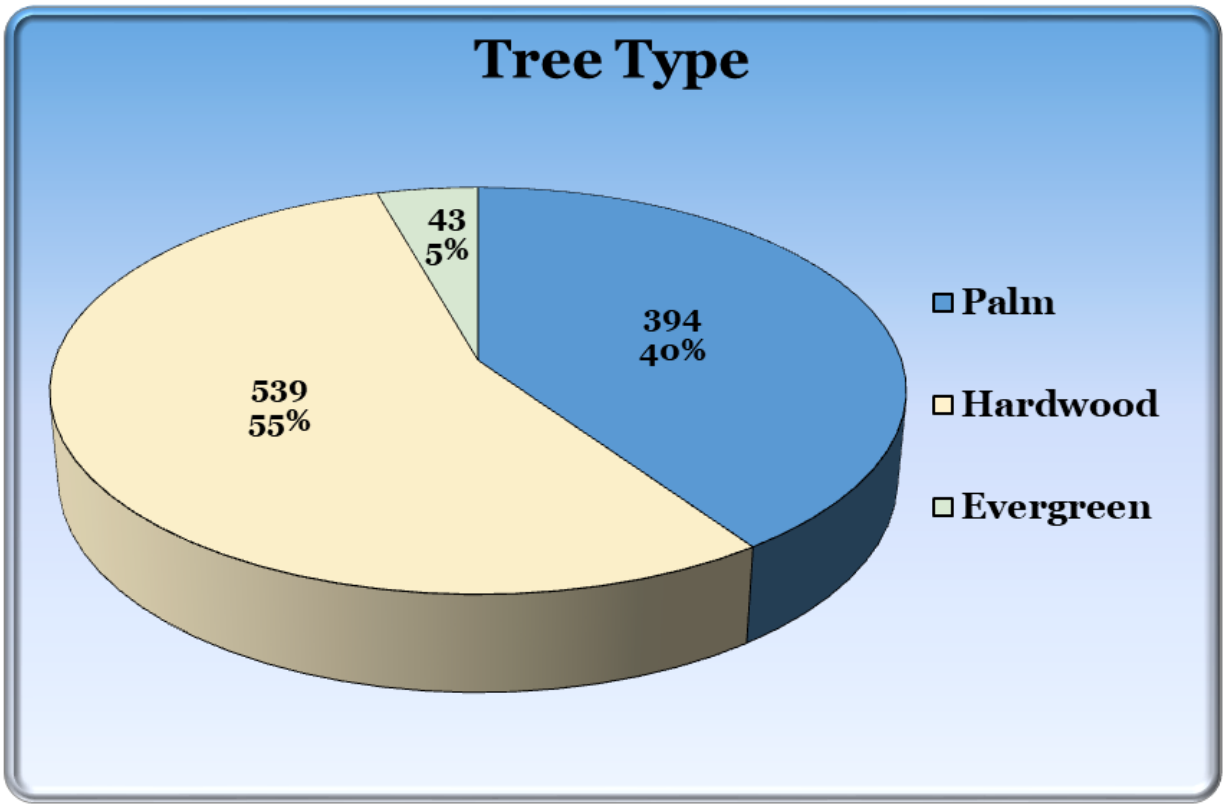
Analyzing the tree assessment allows readers to understand the trees at Mission Hills better. It provides a top-down overview. Trends and patterns can be observed that may be problematic. Below is Mission Hills's tree statistical analysis.

Types of Trees:

There are three types of trees, hardwoods, evergreens, and palms. Hardwoods consist of Maples, Oaks, Hickories, and other trees, which normally lose their leaves annually. Although technically an evergreen tree, Live Oaks is still considered a hardwood.

The second type is evergreen trees which, as the name suggests, maintain their leaves or needles throughout the year. Evergreen trees include species such as Bald Cypress and Arborvitae. The final type of tree is your Palms. Palms technically are not a tree but are more closely related to grass.

At Mission Hills, the community is dominated by Hardwood trees, which comprise over 55% of the population. Palms come in second place at 40%, while evergreen trees comprise only 5% of the population.

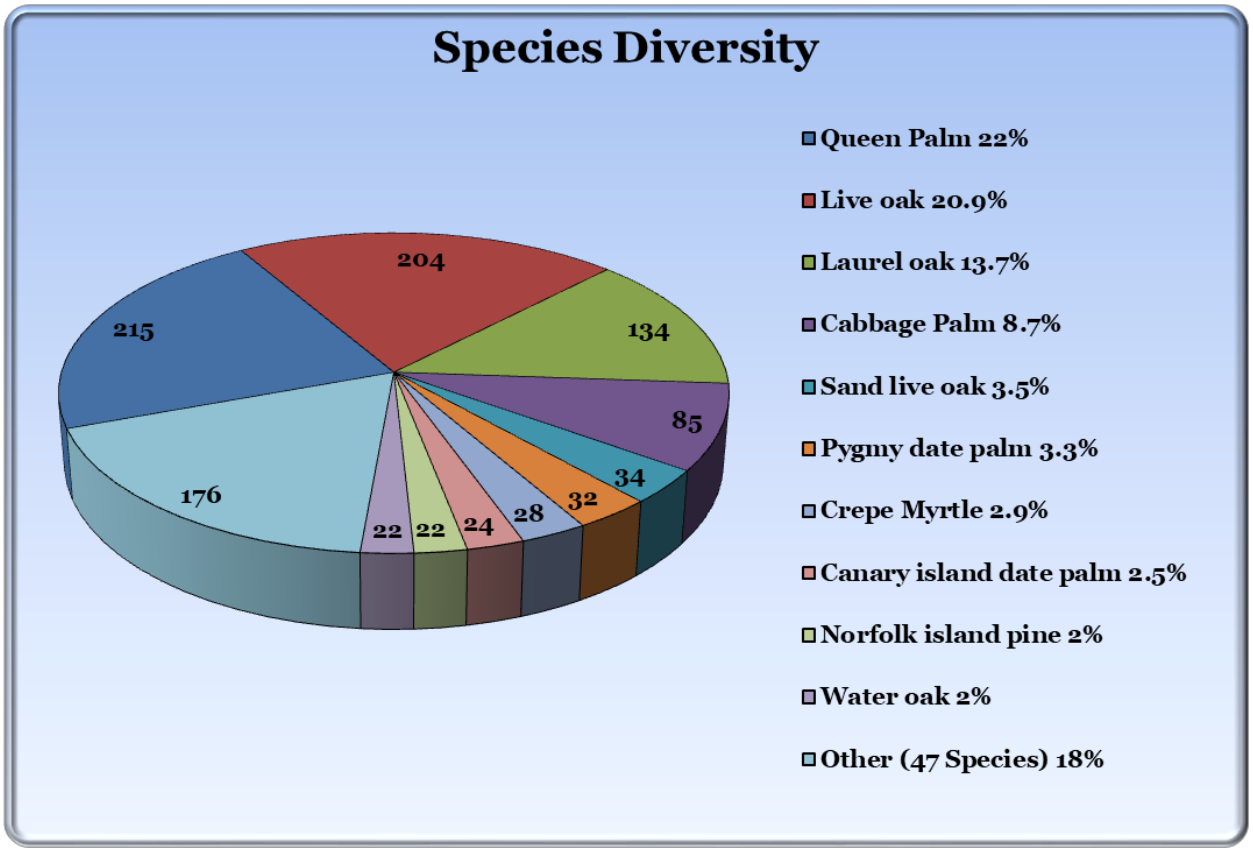


Species Diversity:

Species diversity is an important concept to understand.

An overabundance of one species or type of tree can lead to problems if a disease or insect problem affects that species. Recent examples in the United States include Dutch Elm Disease and the emerald ash borer infestation in the north, which decimated millions of Ash trees. Understanding the species diversity at Mission Hills helps with planning for the future.

A commonly used rule of thumb is the 10/20/30 benchmark proposed by Santamour (1990), which states that tree populations should comprise no more than 10% of a particular species, 20% of any one genus, or 30% of any single family. This helps to limit the impact of potential pest or disease issues.



At Mission Hills, three tree species stand out. Queen Palm (*Syagrus romanzoffiana)* makes up nearly 22% (215 trees) of the total tree population.

This species is susceptible to Lethal Bronzing Disease (LBD), which insects spread. This could become a significant problem in the future and is worth considering. Notably, cabbage and date palms are also susceptible to Lethal Bronzing Disease. What would be the costs for removal and replacement plus the overall impact to Mission Hills if Queen Palms become infected with LBD, die, and require removal and replacement?

Other species of importance throughout the community include the 204 Live Oaks (*Quercus virginiana*), which makes up 20.9% of the population, and 134 Laurel Oaks (*Quercus laurifolia*) at 13.7%.

Based on the benchmark rule, all three species exceed the 10% rule. When trees are removed and replaced, consideration should be given to select species other than Live Oak, Laurel Oak, or Queen Palm to diversify the tree population at Mission Hills further.

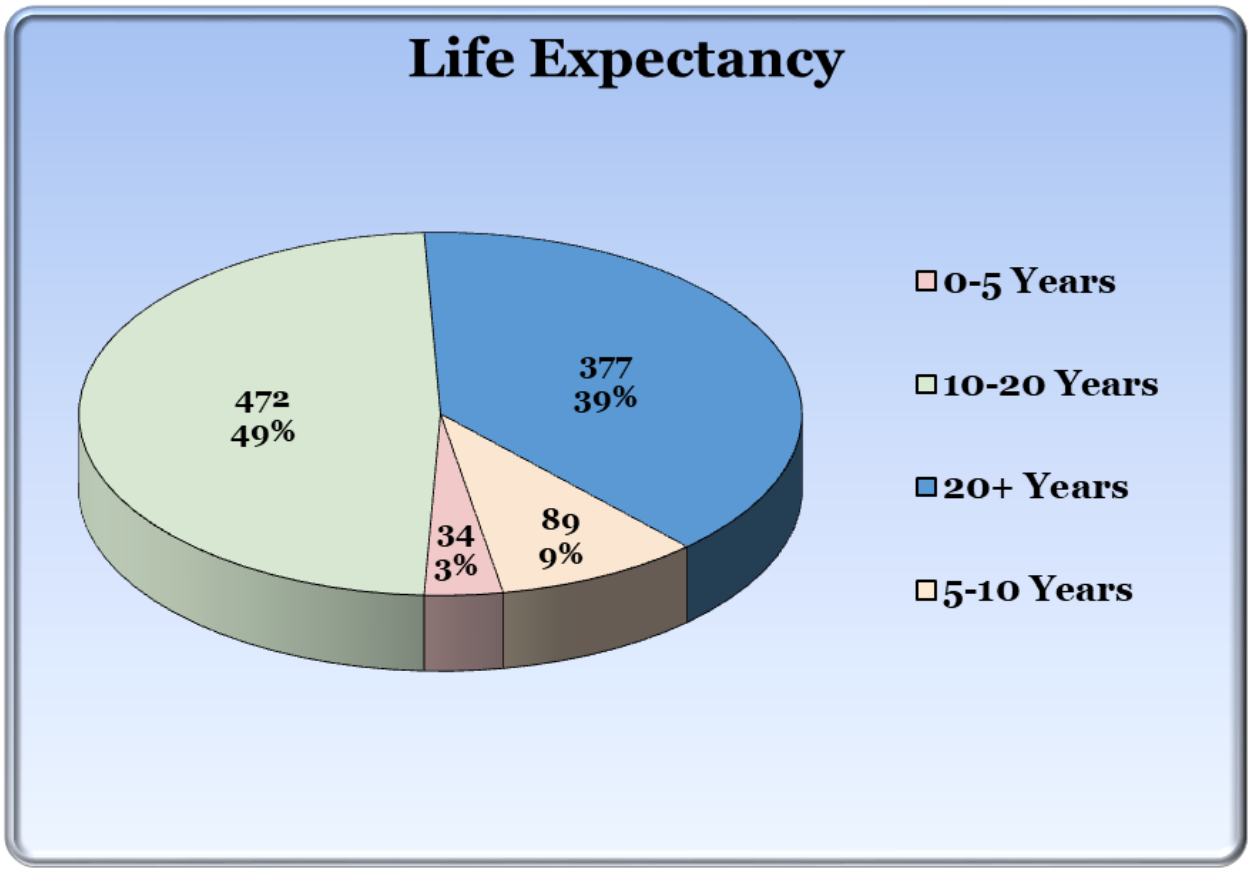
Life Expectancy:

A tree's estimated life expectancy is helpful for management in planning work. Trees with a long life expectancy (20+ years) will require care throughout their life, typically in 3-5 year intervals. Trees with a 0-5 year expectancy are clearly in the final stages of their life, and plans need to be made for their eventual removal and replacement.

Sometimes, a tree's life expectancy can be increased with proper care. Declining conditions caused by lack of water or nutrition can be corrected. Pruning affects a tree's life expectancy significantly as well.

Over-pruning is one of the leading causes of tree decline in urban environments. Over-pruning stresses trees, making them prone to secondary issues such as insects or disease. Further complicating the issue, large pruning wounds require significant energy resources for the tree to seal the wound. Larger wounds take longer to seal and are exposed to potential decay. Decay enters through these wounds and compromises the structural integrity of the tree. Simply put, pruning trees can be more detrimental to the tree than if it were never pruned.

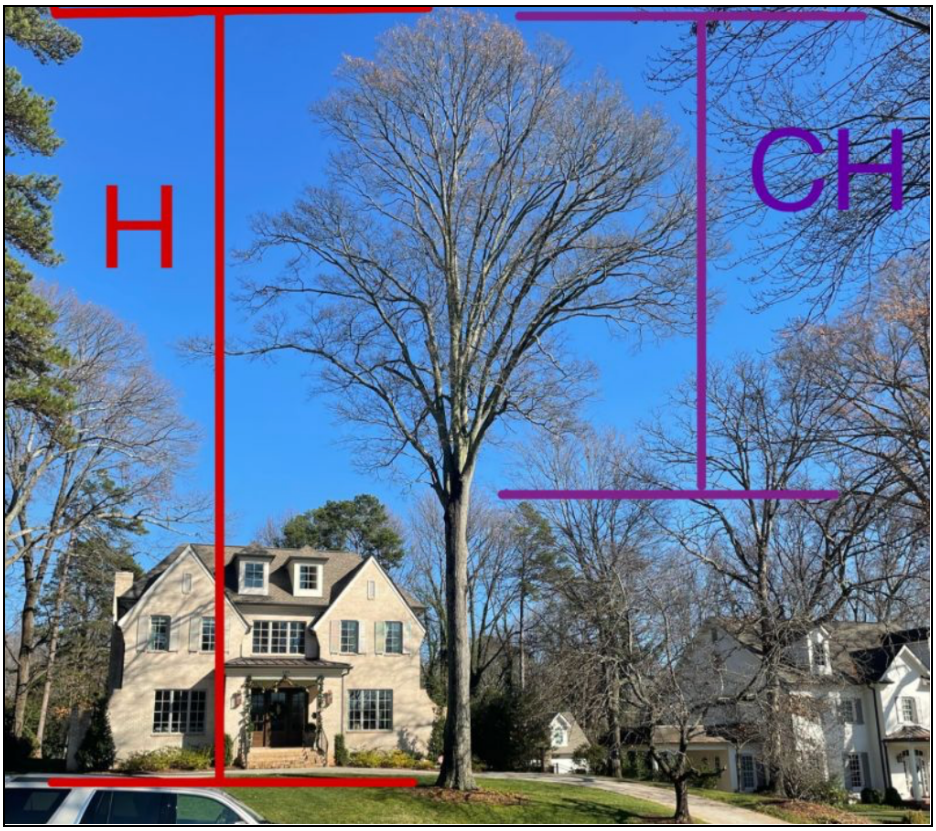
Most of the trees (48.6%) have a life expectancy of 10-20 years at this time. The next significant category consists of trees with a life expectancy of 20+ years, representing 38.8% of the population. Eighty-nine trees (9.2%) are expected to live between 5-10 years which indicates they may have a higher immediate need for care. A small percentage, 3.5% (34 trees), fall into the 0-5 years life expectancy bracket.



Live Crown Ratio (LCR):

A tree's Live Crown Ratio (LCR) is an important indicator of potential tree failure. The Live Crown Ratio does not apply to palm trees but serves as a guide for hardwood and evergreen trees.

Tree LCR is the amount of foliage measured from the top of the tree to the lowest limb minus the total tree height, as shown in the illustration below. This number is expressed as a percentage.



Trees with a lower Live Crown Ratio percentage tend to be in poorer health and are more prone to failure in the wind. Trees rated with 60% or less LCR are a potential concern. At Mission Hills, as the chart below shows, 66.9% of the trees have a 60% or lower LCR.

The trees at Mission Hills primarily have a low LCR because many have been significantly over-pruned over time. Much of this pruning has been

concentrated on raising the lower canopies of the trees, particularly over homes.

While maintaining vertical clearance over homes is very important, proper pruning must be balanced to minimize the adverse effects of creating a tree with a lower LCR. Industry standards recommend 10-15 feet of vertical clearance over homes. In some cases, vertical clearance is approximately 20 feet. Although this can not be corrected, proper pruning in the future can minimize problems associated with a low LCR.

Live Crown Ratio	Count	Percentage (%)
10%	3	0.52%
20%	8	1.40%
30%	25	4.37%
40%	46	8.04%
50%	138	24.13%
60%	163	28.50%
70%	141	24.65%
80%	43	7.52%
90%	5	0.87%

Tree Condition:

Health condition is a pivotal indicator of a tree's lifespan. Trees in poor health are often nearing the end of their lifecycle, whereas healthy trees can promise many more years.

Aside from the common culprits of insect infestation or disease that can compromise tree health, human practices in tree care also play a significant role in determining tree vitality and lifespan. For example, with palms, hurricane pruning is not a recommended practice. The reason is that an excessive amount of living foliage is removed, adversely affecting the tree's ability to produce carbohydrates and energy for itself. The same is true for hardwood and evergreen trees.

A tree's structural condition can reflect its potential for failure. At Mission Hills, individual tree mechanical limitations were assessed, encompassing the root system, trunk, and limbs. Common structural issues noted included narrow branch unions, multiple stems originating from a singular point, and visible signs of decay.

The removal of large lower limbs, observed at Mission Hills, wounds the tree and creates an opportunity for decay. These wounds, while not immediately impacting tree health, will, over time, cause a decline in health and potentially affect the tree's structural integrity due to decay.

The health and structural condition assessment methodology used is the published, peer-reviewed, and generally accepted protocol within the scientific community of Arboriculture. This rating applies to hardwoods and evergreen trees; however, this rating system is ineffective for palms. Palms are assessed as having a 96% condition rating unless something overt was observed.

Each tree is visually graded for its health and structural condition from 0% - 100%. This is further broken down for ease of use on a 5-point scale:

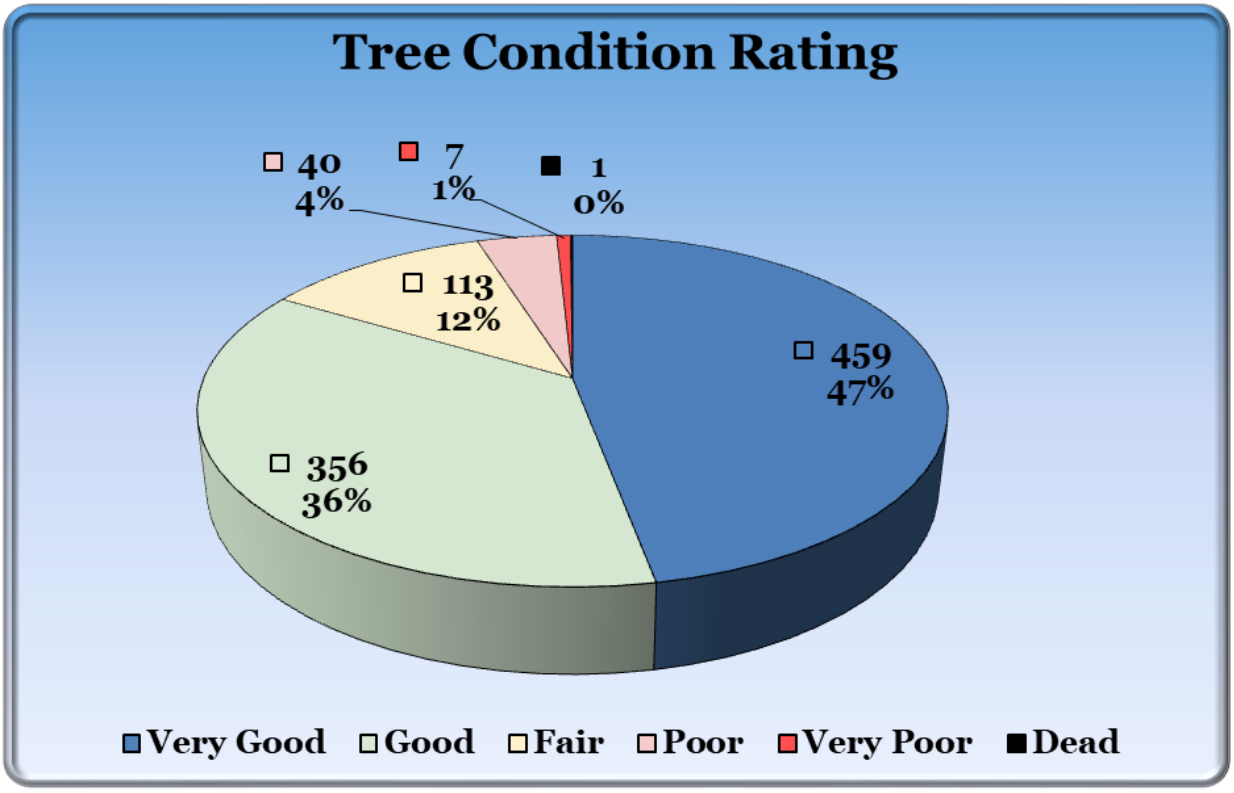
- **Dead**: Completely dead trees. One Oak was identified as completely dead. Trees are rated 0%.
- **Very Poor to Poor**: Trees nearing the end of their life cycle or showcase significant health or structural issues. Trees are rated between 1%-69%.

- **Fair**: Trees that might need care or are on the threshold between good and poor health. Trees are rated between 70% and 79%.
- **Good**: Trees that are in decent health and might require standard maintenance. Trees are rated between 80% and 95%.
- **Very Good**: Trees in prime health with several years of life ahead. Trees are rated 96% to 100%.

The data shows that 815 trees at Mission Hills are in good or very good health, accounting for 83% of the tree population.

Fair health trees make up 12% (113 trees), and a concerning 5% (47) were rated in poor or very poor health.

Trees in Fair condition should be regularly monitored to identify any deteriorating health or structure that can be enhanced through pruning, supplementary support systems, or even removal in extreme cases. Trees rated Good to Very Good should also be periodically monitored, especially after seasonal storms, to identify changing conditions or damage from storms. In short, the assessment is only a snapshot of the trees throughout the community, and conditions can change over time.



The detailed assessment of the trees at Mission Hills underscores the importance of natural factors and human practices in influencing tree health and structure. While most of the trees were in good health and structural condition and deserving of proper care, addressing the needs of those in fair or poor states is crucial to ensure the longevity and safety of all trees.

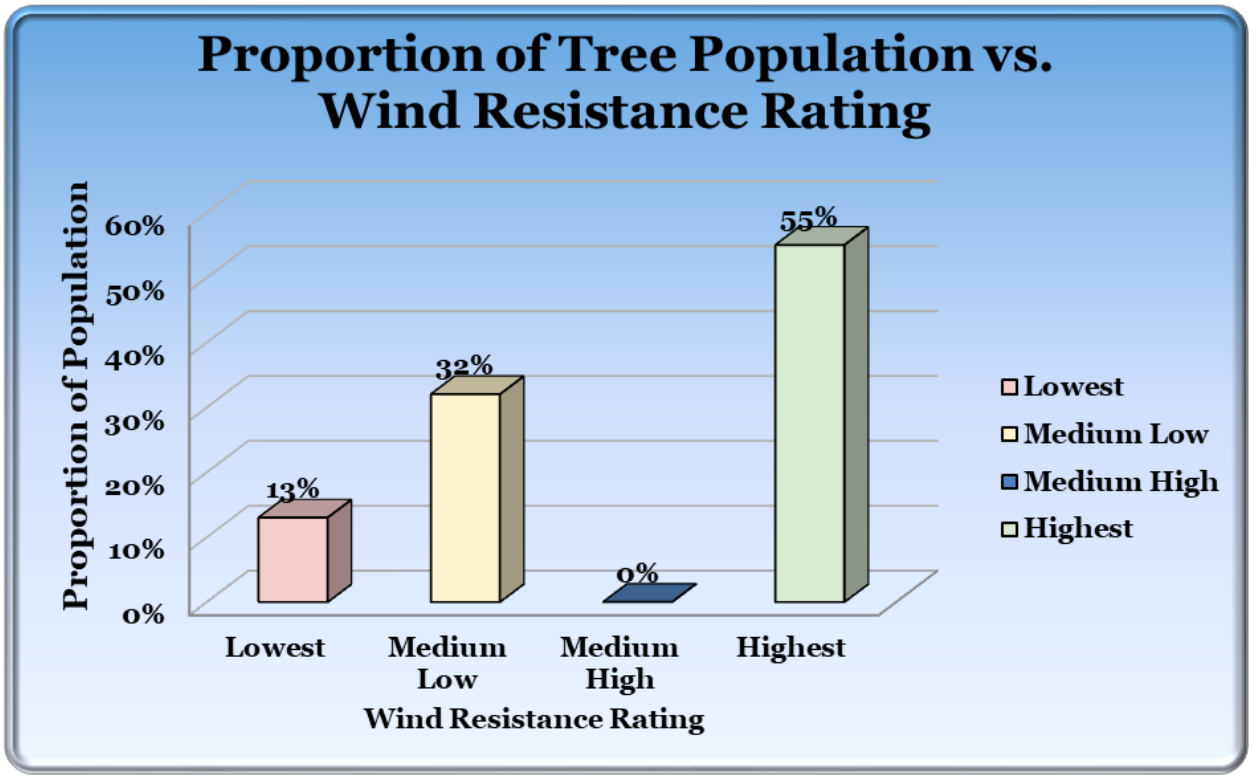
Wind Resistance:

Over the past several decades, research has produced a dataset allowing Arborists to assess the relative "wind resistance" of some tree species to hurricanes. Of the 976 trees surveyed, 494 are in the dataset, including the Live Oaks and Laurel Oaks, which dominate the hardwood tree species throughout Mission Hills.

The chart is inverse to some of the other charts in this report. Trees with the "highest" rating are most likely to resist storm damage, while those with the lowest rating are more likely to have damage.

The existing Live Oaks and Sand Live Oaks had the highest rating, while Laurel Oaks had a Medium Low rating. Species with a Low rating include Avocado (8), Norfolk Island Pine (22), Water Oak (22), and Chinese Tallow (2). No trees in Mission Hills were rated Medium High using this dataset.

This information is valuable because it can assist with planning to avoid replanting certain species (Norfolk Island Pine, for example) and guide future pruning or removals.



Infrastructure Conflicts:

Thirty-two trees (3.3% of the tree population) had apparent infrastructure conflicts. Infrastructure conflicts include adjacent sidewalks, air conditioning units, roofs, power lines, patios, or other objects/structures that could be damaged as a tree grows.

Proper planning can address problems before long-term damage occurs to a structure. Underground utility locations were not assessed throughout the property. Underground conflicts may exist; however, these should be addressed on an individual case-by-case basis.

Examples of observed conflicts include Queen palms planted near pipes or utilities, two Live Oaks conflicting with sidewalks, trees planted at or near the foundation of homes, and trees in the back of Mission Hills growing along the chain link fencing.

Hazard Trees:

The Tree CheckUp Scorecard assessed a tree's risk using a combination of a level 1 and level 2 Tree Risk Assessment methodology developed by the International Society of Arboriculture as a Best Management Practice (BMP). This is an observation of problems with a tree that may or may not require further inspection. This is a valuable process for larger groups of trees to quickly identify those that pose a risk and those that may require further inspection.

Trees are rated as posing either a "Low," "Moderate," "High," or "Extreme" risk.

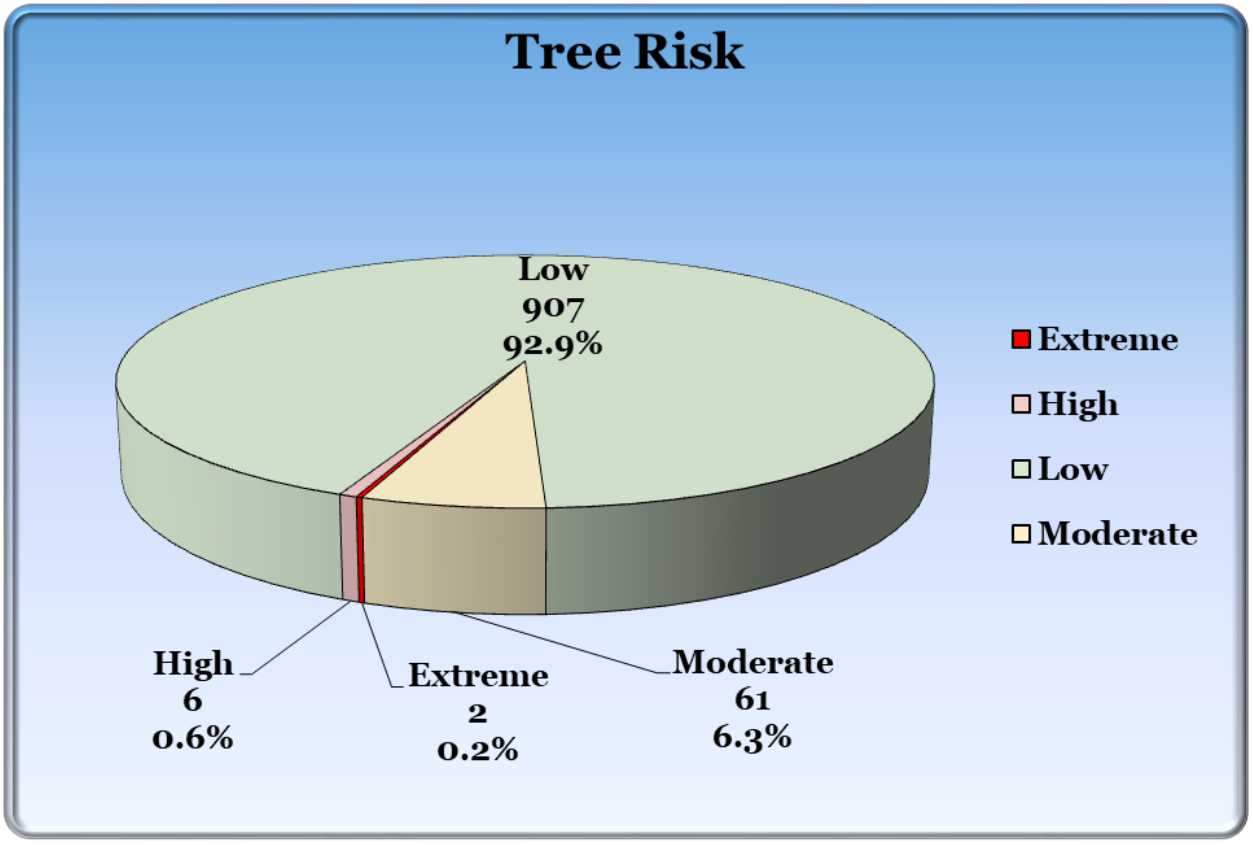
Tree risk consists of several components. A determination if the whole tree or parts of the tree are likely to fail within the time frame is necessary. A reasonable time frame of 2 years was established for failure. (i.e., Could tree or tree parts fail within two years?). Potential targets are the second part. What will be damaged or injured if the tree or tree part fails? A tree's risk is always considered low if there is no target. The final component is the severity of damage or injury should the tree fall and strike the target.

Two trees were determined to be an "**Extreme**" risk. Tree # 383, a Tabebuia tree, and tree # 808, a Laurel Oak. In the case of the Tabebuia tree, the tree should be removed, and the board has been informed of its condition. In the case of the Laurel Oak, removing the decayed part of the tree overhanging the roof will reduce the risk to a moderate to low level.

Six trees were identified and rated as "**High**" risk trees (.6%). If pruned properly, half of these tree risks would be reduced to an acceptable level. The other three trees should either be removed, pruned, or considered for removal.

The sixty-one trees (6.3%) with "**Moderate**" risk should be addressed as part of ongoing management to reduce their risk to a "Low" level. In many cases, this involves pruning to reduce the end weight of limbs, removing deadwood, or in some cases, tree removal.

The remaining 907 trees were rated as having "**Low**" risk. This is the largest group comprising 92.9% of all the trees in the community. Notably, most palms were rated "Low."



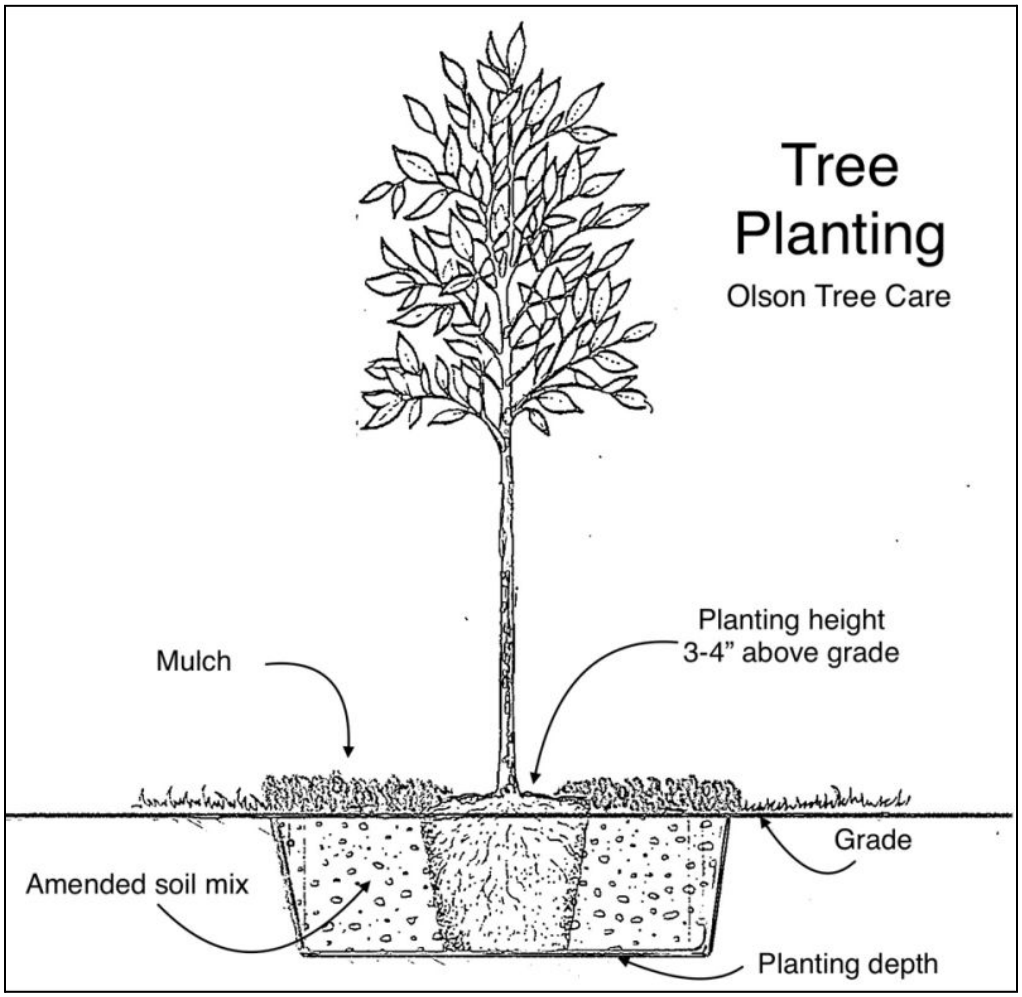
Tree Replanting:

As trees are gradually removed throughout the property, common sense and local ordinances dictate that trees be replanted.

Several points should be observed to improve the success of tree replanting.

- Trees should be planted slightly higher than the existing grade to allow for soil settling. Water can be supplemented easier than it can be drained away (see the illustration below for a proper planting detail)
- Mulching young trees is highly beneficial and should be done routinely for newly installed trees. Mulch retains water, moderates soil temperatures, protects trees from damage by equipment, and provides nutrients to the trees as it breaks down.
- Lawn mowing operations should change direction to aim grass clippings away from younger trees rather than into the tree ring. Grass clippings are not mulch and can cause problems for young trees.
- Trees work best when planted in clusters rather than individual, lone soldiers. For example, in the large common field at the rear of the property, there is a row of Live Oaks with considerable spacing between them. Additional trees in this area would create more of a forested effect, and as the trees grow, they would work to support and protect one another as they naturally do in the forest. The same effect can be done in the interior courtyards by clustering trees together. This would be an opportunity to increase shade in these courtyard areas further when larger trees are removed.
- Species selection, as noted in the species diversity section, should be taken into account. A broader range of tree species would benefit Mission Hills as Oaks are replaced.
- As larger Oaks are removed, consider replacing them on a 1:3 ratio rather than 1:1 over the next several years, particularly in the courtyards. This will more quickly increase the canopy coverage lost from the removal of mature trees.
- Consider the mature size of trees when selecting species and planting locations, particularly in the courtyards, to avoid below-ground infrastructure conflicts in the future.

- Combined with tree clustering, select tree species with a varied mature height. For example, Live Oaks towards the courtyard's center, crepe myrtles nearer the homes, and palms or shrubs near the patio areas.
- Consider developing an in-house tree and shrub list of acceptable species. This avoids installing poor-performing or invasive species while providing consistency throughout the association.



Tree Planting Detail

Management Planning:

A good management strategy that associations can adopt and implement is the basic framework used by many municipalities and developed by the US Forest Service for urban forest management. This framework consists of four parts.

- Staffing
- Ordinance
- Advocacy/Advisory
- Plan

Staffing:

Unlike larger municipalities, most community associations do not have the resources to hire internal staff to maintain their trees. Often, projects are subcontracted out to local tree services or landscape companies.

In Mission Hills's case, your existing small, dedicated staff could effectively manage some aspects of tree care on-site.

IN-HOUSE STAFF:

Staff could handle minor issues with minimal training by investing in small hand tools. The benefits of making this investment include

- Faster response time to address minor tree care issues
- Additional cost-savings rather than sub-contracting menial projects.

A warning: **Staff should only perform specific tasks with proper training and equipment.** This could create an undue liability that the association could avoid. Trained professionals should do certain things.

Tasks that could be completed in-house include light pruning of dead fronds or seed pods from the ground, pruning lower excessive water sprouts on limbs or tree trunks, or managing vines. In short, tasks can be performed safely from the ground with hand saws or proper extension pole saws/pruners.

Without appropriate personal protective equipment (PPE) and more extensive training, gas-powered chainsaws or other equipment are not recommended.

OUT-SOURCED STAFF:

Two types of staff options could be outsourced for Mission Hills.

The first is local tree/landscape companies qualified to perform needed work or projects. Essential qualifications include proper insurance, trained staff, appropriate personal protective equipment (PPE), and adequate supervision.

The second type of staff component would be project management by a qualified, certified arborist. This person(s) would assist with defining scopes of work, selecting qualified vendors, and managing and supervising projects to ensure proper performance.

Based on observations of many of the palms and hardwoods throughout Mission Hills, proper supervision and work is far below industry standards. This is through no fault of the staff, board, or management, who can not be expected to understand industry standards and manage and supervise outsourced crews' work performance. This should be rectified.

Ordinance:

Associations are separate from government agencies that create ordinances and municipal codes. However, most associations have adopted specific rules and regulations as part of their covenants and declarations. In this sense, associations can create their own “ordinances” that assist with the day-to-day management and future planning of trees. This is often accomplished through the Architectural Control Committee, an ad hoc Tree Committee, or another volunteer committee.

It is outside this project's scope to assess Mission Hills rules and regulations and make recommendations; however, “good” rules include things such as:

- All work performed by contractors shall follow industry safety and professional standards.
- Invasive tree species, as defined by the Florida Invasive Species Council, shall not be planted in the association.
- All new plantings on common or private property shall be approved before installation by the ACC.
- All trees over 8 inches in diameter and shrubs 3 feet or taller shall require a permit from the Association before removal, in addition to any local requirements.
- Trees or shrubs planted shall follow industry standards, and only species in the Associations accepted 'Tree and Shrub List' will be allowed.
- A qualified ISA Certified Arborist shall supervise all tree pruning.
- Without prior approval, tree pruning cuts shall not create wounds larger than 4 inches in diameter.

Poor rules tend to be vague. This confuses existing and future boards, residents, and contractors. The rules and regulations do not need to be exhaustive; however, they should create **community standards** everyone must follow.

Advocacy/Advisory:

Advocacy refers to groups like garden clubs or other community organizations that advocate for trees, landscaping, and shrubs.

Conversely, Advisory groups may refer to specific committees like an Ad-Hoc Tree or Architectural Control Committee.

Advisory also refers to consultants developing and managing community tree asset plans.

A consultant's roles that can benefit the association include:

- **Provide independent services.** Consultants should not work directly for a tree care company, which could create bias.

- **Providing a prescriptive approach to tree pruning, including video scopes of work**. 'Video scopes of work' outline the necessary work to be performed and can be referenced to ensure that contractors have correctly completed the job. Video is preferred to document tree work beforehand and after, as it can more clearly show what needs to be done. Often, contractors prepare a written scope of work that can be vague. Video scopes of work are much more specific and allow contractors to bid on the exact same job.
- **Preparing requests for proposals** (RFPs) that adhere to industry standards and guidelines.
- **Evaluating contractor's performance and qualifications** to ensure the association.
- **Preparing Arborist Reports,** including Tree Risk Assessments for submission to the local authorities for tree removals.
- **Reviewing association rules and regulations** and assisting in crafting specifications for trees.
- **Inspecting trees and assisting in work prioritization after storm events**.
- And more.

Selecting a consultant is equally important as choosing your tree care contractors. Consultants should be qualified and experienced. At a minimum, qualifications should include:

- International Society of Arboriculture (ISA) **Certified Arborist** or greater.
- Training, experience, and holding the ISA Tree Risk Assessment Qualification.
- Experience working with community associations.
- Ability to respond to storm damage.
- Ability to educate and mediate.

Plan:

Planning to manage the trees at Mission Hills is very important. As in most things, Proper Prior Planning Prevents Poor Performance (The 6 P's).

Without proper planning, direction, and supervision, the association will likely continue to spend money on sub-par or unneeded services.

The TreeCheckUp Scorecard is one component of an overall tree management plan for Mission Hills. By understanding the tree's needs and general work prioritization, scopes of work and budgets can be developed and implemented, which will benefit Mission Hills by maintaining the communities tree assets over time, including:

- Longer living and healthier trees
- Safer trees
- Improved service response time

Work Priority:

Work prioritization is one of the biggest goals for the Tree CheckUp Scorecard. Understanding the scorecard allows us to make recommendations to direct the overall plan for managing the trees. Effective prioritization reduces overall costs, addresses issues many may not be aware of, as well as helping with budgeting.

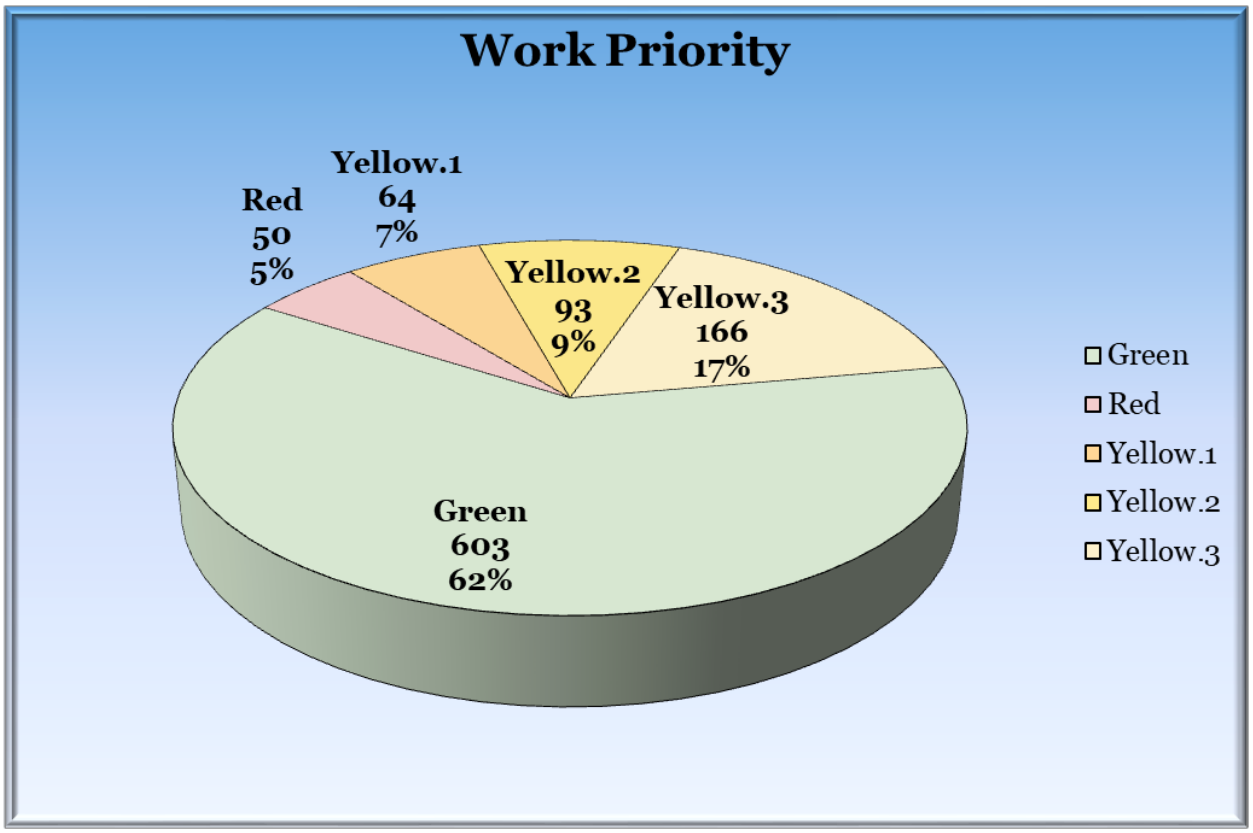
A color coding system of Red, Yellow, and Green is the simplest but very effective method to prioritize work. As the chart below shows, fifty trees (5.12%) were identified that would be categorized as having a Red priority and should be addressed within the next year. Trees ranked yellow should also be addressed over the next few years as the budget allows. These are broken down into three yellow categories (1, 2, and 3) based on recommended priorities.

It's important to note that things change over time, and some trees rated as yellow may always be yellow because they require more care and attention due to their location or other factors. Trees rated "Red" do not necessarily mean

the tree should be removed. Sometimes, a large dead limb or defective limb was noted and could simply be pruned out. For this reason, readers and managers are cautioned to refer to the actionable recommendations and comments before making conclusions.

The actionable recommendations are typically numbered in the order work should be accomplished; however, the order could vary due to budgets or other concerns.

The Mapping Section below provides a clickable map of the work priority throughout Mission Hills to help guide readers and managers to target specific problem trees.



Palms:

With 394 identified Palms throughout Mission Hills, this composes a large tree group throughout the community and requires a separate discussion because of the significant costs of maintaining them.

While the Tree CheckUp Scorecard does not rate several aspects of palms, some notable observations were apparent.

PALM PRUNING:

First, most of the palms are likely over-pruned. I recommend following the University of Florida guidelines for palm pruning which can be found **here.**

The net result of over-pruning is a reduced life expectancy of the palm and possible insect or disease issues. This adds to maintenance costs and requires more fertilization since needed nutrients are removed during the pruning process.

Why are palms over-pruned? The short answer is that palm pruning has been commoditized and needs to be understood. A Canary Island Date Palm (*Phoenix canariensis*) can cost up to $385 per foot as a wholesale cost. A ten-foot palm might cost $3850, plus installation costs. Comparatively, Queen palm (*Syagrus romanzoffiana*), a much less desirable species, costs between $100 and $150 for a 10-12 foot tree. Particularly with more expensive species such as the Canary Island Palms, it makes sense to invest in better care.

Workers must often be properly trained or equipped to perform palm pruning correctly. An example is using a chainsaw to remove all the lower fronds AND seed pods. This will result in an over-pruned palm EVERY time.

Skilled and properly insured workers cost more than untrained workers, so proper palm pruning costs more. Time and cost studies have shown that a reasonable palm pruning price is 45-55 dollars per palm for Queen Palms, although project pricing may further reduce those costs. Caution should be

used to ensure that workers are properly trained and equipped to perform the work.

Seed pods should be removed using a handsaw rather than a chainsaw because the lower fronds are still alive and do not need to be removed, yet the seed pods grow out of the top of most palms. Damaged fronds have no way of recovering and will eventually die.

Proper pruning should be performed on palms at the correct time of the year. This appears to be a significant problem at Mission Hills, as many palms throughout the community are now pushing out flower stalks which will eventually produce seeds. These seeds can become a slip-and-fall hazard for the association.

Palms should be pruned to the 9 and 3 positions on a clock, and seed pods removed. If done correctly, most palms only require pruning once a year and some minimal pruning to remove damaged or dead fronds between pruning cycles. A benefit of this would be reduced overall costs associated with palm pruning.

The problem is that some residents may respond differently to this, and community education is recommended to educate residents about proper palm maintenance practices.

PALM FERTILIZATION:

The University of Florida recommends that palms be fertilized up to four times annually. This is not feasible for a community like Mission Hills due to the high fertilization costs. When fertilization is recommended, it must be done using the proper fertilizer and applied correctly to be effective. Notably, **almost every Canary Island Date Palm appears to be nutrient deficient**. This should be addressed due to the high replacement cost of this species.

Fertilization recommendations can be found **here**.

Conclusions and Actionable Recommendation Trends:

Many conclusions can be drawn from the data collected on the trees at Mission Hills.

The most notable general trends include the following:

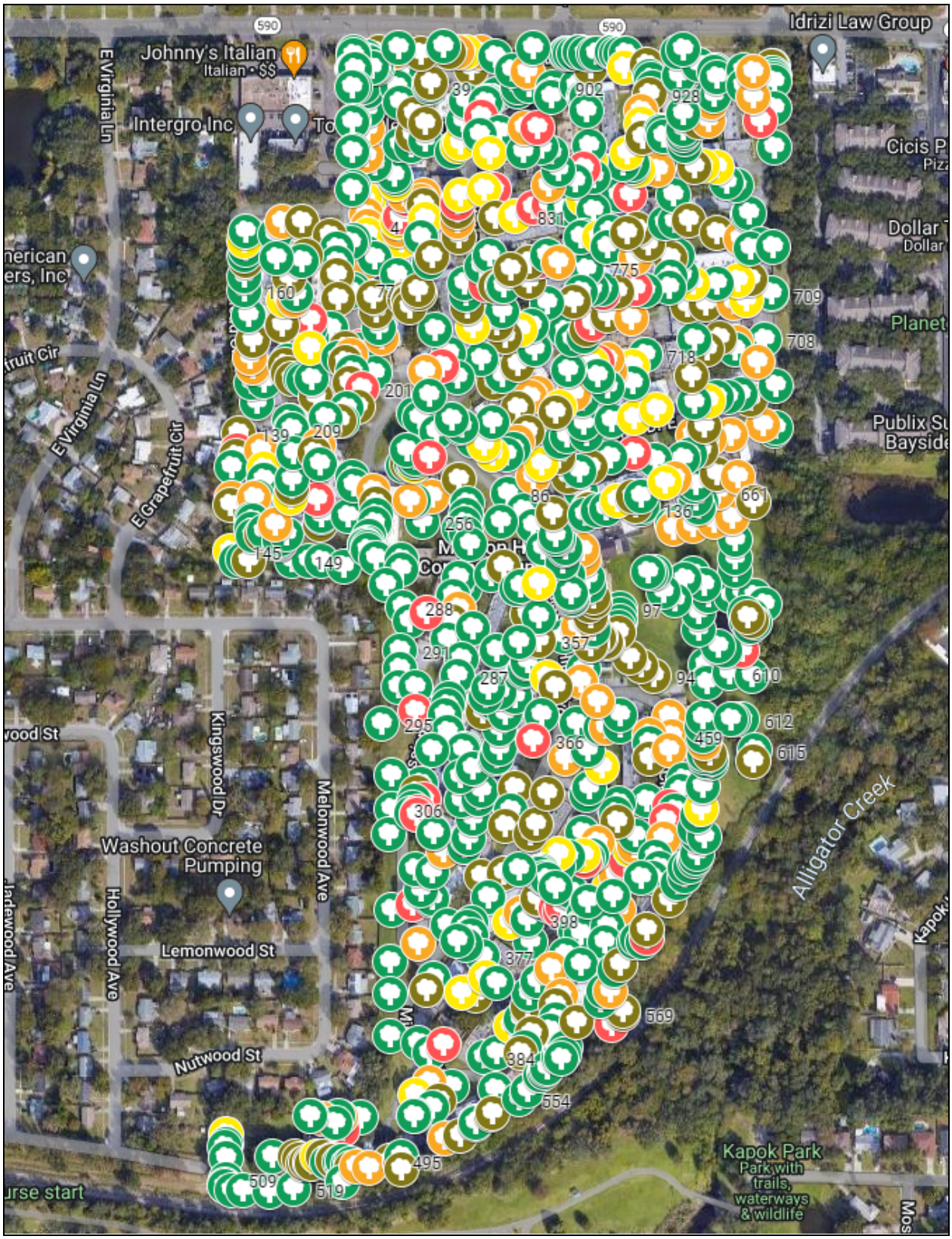
- Many of the larger trees have had lower limbs removed. This resulted in pockets of decay in certain species, most notably the Laurel Oaks. This trend points to a need to understand how to prune and maintain trees properly.
- Surface roots are another concern throughout the community.
- The larger Oaks, in particular, were noted as having surface Roots which, in many cases, were damaged by the lawnmowers.
- Tree trunks have been damaged by weed whackers or other equipment against the tree trunk.
    - The solution to both problems is to create a tree ring around the trees, reducing the chances of damaged equipment or the roots and tree trunks.
    - Mulching would significantly reduce the conflict between the equipment and the trees. Even without mulch, a tree ring with bare soil creating an area that doesn't require equipment would be beneficial.
- Large deadwood is another consistent issue throughout the community, particularly with the larger oaks. Aside from periodic lower limb removal, few trees have been wholly pruned.
- Over-extended limbs, often caused by incorrect pruning on lower limbs, are another consistent theme. End Weight reduction is the preferred method to resolve issues related to over-extended limbs; however, it requires special equipment, skill, and training.
- The palm pruning methodology should be improved.
- Palm tree diversity could become a problem, particularly the Queen Palms, representing 22.0% (215) of the total tree population.
    - Selecting other species for replacements should be done.
- Some tree species, like Norfolk Island Pine, should not be planted in the future. Existing trees should be managed appropriately.

- Past tree pruning has often been sub-par and resulted in reduced life expectancy and increased possible risks due to the onset of decay.
- In many cases, needed pruning is minor such as removing a few dead limbs. Creating photo or video scopes of work would benefit management in assessing what work needs to be done and crews performing the work to avoid unnecessary pruning.
- Selective pruning is warranted and reduces overall costs.
- Several hardwood trees should be considered for removal within the next several years.
- Some of the needed work could be accomplished in-house if staff provided basic training and tools.
- Contracted work should be properly supervised, and scopes of work should be better defined to reduce subpar results.
- Industry tree pruning standards should be used (Topping not allowed, etc.).
- Reviewing and revising existing governing documents may be helpful to better plan for future boards. Community palm pruning standards are an example.
- Young trees are typically planted slightly lower than they should be.
- Very few of the trees at Mission Hills are mulched.
- Few of the young newly installed trees have received pruning or care beyond what they receive from normal rainfall and possibly irrigation.
- A **young tree pruning program** is vital for Mission Hills to correct problems before they become costly or cause significant damage to the trees.

Maps:

The maps below are designed to be user-friendly and open in a new window with the entire map. Simply click on the map or link and follow the shortcut to open the map. Each tree point can be clicked on and contains all the information collected about each tree, including, in some cases, photos of each tree (primarily hardwoods and evergreen trees). These two maps are the most relevant to the Tree CheckUp Scorecard and Mission Hills.

[Mission Hills Trees (Complete)]



[Work Priority](#) **(Red, Yellow, Green)**

Data:

Due to the sheer size of the data collected, it was decided to create a separate linked **Google Spreadsheet**, which will open a new window allowing readers to access the information they need rather than add a data table to this document that would exceed 450 pages and render it unusable.