[redacted] Appraisal Report

Prepared for [redacted]

Prepared by James Komen
BCMA WE-9909B
RCA #555

Class One Arboriculture
[redacted]
818-495-5344
classonearboriculture@gmail.com

[redacted]

Table of Contents

Summary of Appraisal

This report details my observations and findings for an assignment to appraise the reproduction cost of a damaged Aleppo pine using four methods and several iterations. The methodology for arriving at the concluded values is detailed in subsequent sections.

Approach	Method	Amount
Cost	Trunk Formula Method, no depreciation, calculated unit cost	$ 11,100.00
Cost	Trunk Formula Method, with depreciation, calculated unit cost	$ 5,890.00
Cost	Trunk Formula Method, no depreciation, WCISA regional guide unit cost	$ 12,300.00
Cost	Trunk Formula Method, with depreciation, WCISA regional guide unit cost	$ 6,400.00
Cost	Direct Replacement Method, no depreciation	$ 52,001.78
Cost	Direct Replacement Method, with depreciation	$ 25,255.22

My assignment did not require a reconciliation of these values, so one is not included in this report.

Background

I was contacted by [redacted], [redacted]. [redacted] asked for an appraisal of damage that was done to a fully mature, 30+ year old Aleppo Pine (*Pinus halepensis*) growing along the southern portion of the eastern property line of [redacted] property at [redacted].

I met [redacted] at his home on [redacted] to make observations and record data for this report. [redacted] asked me to prepare an appraisal report of the reproduction cost of the tree.

Subject Tree

The subject tree was an Aleppo Pine (*Pinus halepensis*). I measured its Diameter at Breast Height (DBH) to be 15 inches. It was approximately 30 feet tall at the point it was topped. Two neighboring trees of same age measured approximately 40-45 feet tall, so it was likely that this tree was about that same height prior to the incident.

This tree was planted as part of a group of 3 Aleppo Pines planted between the swimming pool and the east and south property lines. The trees were angled in such a way at planting to create an aesthetically pleasing geometric pattern as a backdrop behind the pool. [redacted] likened the pattern to the arrangement of palms forming the "Big W" in the movie "It's a Mad, Mad, Mad, Mad World."

The subject tree was growing in an irregular planter space measuring approximately 8 feet from the wall to the pool, 16 feet from the edge of the planter to a point near the eastern wall, and 23 feet from the edge of the planter to the southern wall. Although this amount of soil volume is not ideal for this tree, the two remaining trees in the planter do not show evidence of stress related to low root volume.

The subject tree contributed three functional benefits to the value of the property:

1) It provided an aesthetically pleasing geometric backdrop behind the swimming pool;
2) It provided shade from the eastern sun; and
3) It screened the undesirable view of the power lines to the east of the property.

Appraisal Methodology

[redacted] only asked me to appraise the reproduction cost of the tree. Reproduction cost is the amount to procure an identical copy of the subject of the appraisal. I used four methods of appraisal to establish anchor points used in this report. Per the limitations of my assignment, I do not conclude a final appraised cost in this report, but I do provide explanations regarding the advantages and disadvantages of each method I used.

The four methods I used were:

- *Trunk Formula Method without depreciation*: The cost of producing nursery stock is extrapolated out to the size of a tree that is not commonly available for sale in the nursery. In theory, the Largest Commonly Available Transplantable Tree (LCATT) would be installed and grown to the same size as the subject tree, thereby replacing the benefits provided. This method does not include depreciation because the output is the cost to produce a notionally ideal reproduction of the subject tree.

- *Trunk Formula Method with depreciation*: This method combines the Trunk Formula Method basic cost (above) with three elements of depreciation to produce the cost to reproduce the subject tree, reduced by some deductions for loss in value. The depreciation elements are species, location, and condition. Trunk Formula Method with depreciation is one of the most commonly utilized methods of tree appraisal.

- *Direct Replacement without depreciation*: Direct replacement is the cost of procuring a tree of identical species and size or the next largest available (not necessarily *commonly* available) if one of an identical size is not available. It includes cost of procuring the tree, transporting it to site, installing it, and any incidentals that may be incurred in the installation process.

- *Direct Replacement with depreciation*: This method combines the aforementioned direct replacement method with the same depreciation attributes described earlier.

The income approach was rejected because it would be difficult to find comparable rental properties and determine the difference in rent they would pay as influenced solely by the presence or absence of the subject trees. The capitalized income generated by these trees is not an appropriate representation of the loss incurred by the property owner. Also, the ecological benefits as represented by a calculator such as iTree Eco do not fully illustrate the benefits provided by the intended function of the hedge in the landscape.

I did not use the market approach because Mr. [redacted] said the diminution of real estate market value was not relevant to this case.

Within the cost approach, I rejected the functional replacement method because the tree is not superadequate in the landscape. In order to reproduce functional benefit #1, a tree of an identical species and size would be necessary. If a replacement tree did not match the subject tree in species or size, it would not reproduce the symmetric appearance of the geometric pattern behind the pool. Therefore, there exists no functionally equivalent tree that can be produced at a lower cost than one of the same species and size.

Within the cost approach, I also rejected the Cost of Repair method. Cost of Repair reflects the costs incurred beyond ordinary maintenance to adjust for damage and mitigate further losses. Unlike the other methods, the cost of repair does not usually estimate the cost to return the plant to its pre-damage condition. It makes two key assumptions:

1) The subject of the appraisal will remain in place
2) The subject of the appraisal will continue to provide benefits similar to those prior to damage.

In this case, assumption #2 does not hold. The subject tree would not continue to provide benefits similar to those prior to damage because it is not likely to survive the prior pruning event. Furthermore, if all three Aleppo pines are taken as a unit, assumption #2 still does not hold because even if the canopy of a neighboring tree could be trained to fill the void left by the removal of the subject tree, the group of three trees would not continue to provide functional benefit #1. The geometric pattern would permanently be disrupted by the removal of one of its key elements.

Trunk Formula Method

The theory of the Trunk Formula Method is to scale up the costs of the largest available tree relative to the total cross sectional area of the tree trunks. The unit cost per square inch of nursery stock is calculated for the largest commonly available transplantable nursery stock, and it is multiplied by the cross sectional area of the subject plant being appraised to arrive at the basic cost of the tree.

After calculating the basic cost of the tree, depreciating factors are introduced. Since hand-selected nursery stock is in theory the best quality, the basic cost must be adjusted downward by a condition factor to reflect any defects in form, health, or vigor. This is a subjective rating between 0% and 100% as determined by the appraising arborist. The same is true for the location of the tree: the optimal location can be selected for transplantable nursery stock, but not for an established tree. Therefore, the basic cost is multiplied by a location factor between 0% and 100% as well. Lastly, the species of the tree may be more or less valuable than other trees of the same size, location, and condition. So there is a third factor introduced: the species rating, also between 0% and 100%.

The final appraised cost solution of the tree is the product of the total cross sectional area, the unit cost of trunk area, and the three depreciating factors: species, location, and condition. See the appraisal tables at the end of this report for detailed calculations beginning on page 26.

Trunk Area

First, the diameter of the subject trunk is measured. The height of the measurement is made at 4.5 feet above natural grade. I made my measurements with a regular measuring tape and then used my circumference measurements to calculate the diameter and then the cross sectional area of each tree. The circumference of the tree was 3 feet, 11 inches, and the calculated DBH was 15 inches. The cross sectional area (A) is calculated by the formula $A = \pi/4\ d^2$ for trees with circular trunks. The trunk formula method assumes that the trunk of a tree can be approximated by a perfect circle.

Unit Cost

Unit cost is the cost to produce one unit of cross sectional trunk area in the nursery. It varies based on the growth rate of the tree and its trunk size in various box sizes. This unit cost is expressed in dollars per square inch of trunk cross sectional area.

The unit cost of the nursery stock in Southern Nevada was last published in the 1992 Western Chapter ISA "Green Book." Since then, a newer edition of the Green Book has been published under a new name, the WCISA Regional Species Classification Guide (WCISA, 2004). This newer edition states, "[the] subcommittee expects to use the same nursery data as 1992, unless a more recent calculation by an adjacent subcommittee is found to be more realistic."

In the 1992 Green Book, *Pinus halepensis* is not listed as having a nursery group number in Southern Nevada. Without a nursery group number, it is not possible to discern a unit cost for the species. So I deferred to the statement made in the 2004 edition that an adjacent subcommittee's data may be used. Southern California's subregion listed the Basic Price (referring to unit cost) of *Pinus halepensis* as $62 per square inch in 2004. Arizona's subregion listed the Basic Price to be $169.85 in 2004, primarily because of the much smaller LCATT for that region. Many nursery trees may be shipped from either of these adjacent subregions, making them potentially viable data points.

As shown above, one of the weaknesses to using data published in the WCISA Regional Species Classification Guide is the reliance upon data from outside the specific appraisal region. Another weakness is the data has not been adjusted for inflation and current market pricing. All of the price data was collected most recently in 2004, and in the past 13 years, market conditions may have changed substantially.

As an alternative to using the published values in the guide, a more detailed analysis of the unit cost was performed. I obtained wholesale nursery pricing data and analyzed it for size and price information to determine a more accurate unit cost. I called several major nursery suppliers and inquired the size and price of their LCATT for *Pinus halepensis*. For suppliers that quoted the wholesale price, I doubled it to reflect the retail price that a consumer would actually have to pay to acquire the tree. I then took the median retail price and size and calculated the cost per square inch of trunk cross sectional area. The unit cost that I calculated was $55.17 per square inch of trunk area, which was fairly close to the published unit cost of *Pinus halepensis* in the Arizona subregion in 2004.

Species Rating

The species ratings of many trees grown in the western United States are also published in the Western Chapter ISA Species Classification Guide. The ratings are designed to reflect the suitability of the tree for the region. The appraising arborist has the discretion to adjust the species rating up or down by up to 10% to reflect localized benefits or problems related to the species of the subject tree. The published rating of *Pinus halepensis* is 70% for Southern Nevada. I did not elect to adjust this species rating.

Location Rating

The location rating has three components that are averaged together: site, contribution, and placement. The site is the relative market value of the property on which the tree is sited. The contribution is the value the tree adds to the landscape; higher points are awarded for prominent specimens. The placement rating reflects how effective the tree is at providing its functional and aesthetic attributes. It is also adjusted for the value of the growing location to the tree itself. The average of these three values is the location rating.

I rated the site for all of the subject trees at 85% because according to Zillow.com, the subject property is among the higher-valued single family residential real estate in the greater Las Vegas metro area. The subject parcel had a well-maintained appearance, and all of the surrounding trees had been meticulously cared for in the past.

For contribution, I rated the subject tree as 80% because it had a relatively high degree of benefits provided to the landscape. It contributed the three primary functional benefits listed earlier: geometric pattern, shade, and screening of a view.

Placement was similarly given a high rating of 70%. The tree's precise placement behind the pool completed the symmetry of the geometric pattern formed by the group of three Aleppo Pines. If it had been placed a few feet in either direction of its current location, the group of trees would not have had the same degree of symmetry and would therefore not have had the same degree of benefits in the landscape. I deducted points for limited root volume, proximity to power lines, and proximity to a retaining wall. Ideally, the tree would have had a larger root volume and more space for its canopy to grow without contacting the wall or the power lines above it. I did not weight these deductions as strongly as I weighted the benefit of the precise placement relative to the other two Aleppo Pines.

[redacted] told me that she spoke to a representative from NV Energy, the company responsible for tree trimming around power lines. She told me the following:

> "I spoke with one of the electricians (or maybe he was an arborist) from NV Energy, which is the company that is responsible for the tree trimming. I tried to get the specifications that they follow, but it looks like we will have to subpoena that information. The person I spoke to did tell me that NV Energy follows the codes in the National Electrical Safety Code. He also stated that NV Energy requires that the trees be 10 ft. from the power line, with the minimum distance being 6ft. He said that they would also do a little less than 10 ft on the [redacted] trees, because [redacted] loves his trees, and because that species of tree does not grow very quickly."

The information I was provided supports the claim that with moderate periodic pruning, the subject tree could be retained in the landscape without violating the National Electric Safety Code. Therefore, I did not place as much weight on the placement rating deduction for proximity to power lines as I did on the benefits provided by its proximity to the completed stand.

I combined the three components of the location rating by taking their average. The combined location rating for the subject tree was 78%.

Condition Rating

The Guide to Plant Appraisal 9th Edition divides the condition rating into 8 subcategories, each rated on a scale of 1-4 (CTLA 2000). A rating of 4 is assigned to "no apparent problems," and 1 is assigned to "extreme problems." These subcategories are summed and divided by the maximum score of 32 to arrive at a final percentage condition rating. The subcategories are: Root Structure (RS), Root Health (RH), Trunk Structure (TS), Trunk Health (TH), Scaffold Branch Structure (SS), Scaffold Branch Health (SH), Branches and Twigs Health (BH), and Foliage and Buds Health (FH). For the subject tree, I rated its condition attributes as "no apparent problems" unless a defect was apparent from photos or from my site inspection.

The subject tree was not completely dead at the time of my observation. There was one branch on the northern side of the canopy that had some green needles. From my personal experience with this species of tree, it is unlikely that it will survive much longer in the landscape, and it is highly unlikely that it would ever grow to recover its former size and landscape contribution. Therefore, I recommend the removal of the remaining trunk. Since I have recommended removal of the tree, I did not rate it for post-loss condition.

Root Structure: 3 – Minor Defects.

Because of its proximity to the pool and wall, this tree had limited growing space. Trees in limited soil volume tend to develop circling roots which can be a minor structural defect. Because my inspection was all-visual, I had to make a judgment using the information available to me. If an excavation were to reveal the actual structure of the root system of this tree, this rating might change.

Root Health: 4 – No Apparent Defects.

I did not observe any defects that related to the root health. Assessment of root health is often based on canopy observations. However, since the canopy of the subject tree had already been removed at the incident, I used the neighboring Aleppo pines as a proxy for crown observations because they were trees of the same species, size, and age. While some brown patches were present in their canopies, these were likely due to above-ground conditions and not root health defects. Because I did not observe any defects, I rated this subcategory accordingly. If an excavation were to reveal defects in root health, then this rating might change.

Trunk Structure: 4 – No Apparent Defects.

Although sometimes a prevailing lean may be considered a defect, this tree was deliberately planted with its lean. It had retained that lean for decades. I did not observe any decay pockets or any other structural defects in the trunk.

Trunk Health: 3 – Minor Defects.

I observed some sunburn injury on the bark on the western side of the trunk near the topping cut along the main stem. This sunburn injury appeared to pre-date the topping cut, so I considered it for the pre-loss condition rating. Sunburn occurs as a result of excessive solar exposure raising the temperature of the living cells underneath the bark. The extent of the sunburn did not appear to significantly affect the health of the rest of the tree. The wound did not have substantial decay associated with it either. Therefore, I rated the defect as minor.

Scaffold Structure: 3 – Minor Defects. Although all of the primary scaffold branches had been removed prior to my arrival, I observed several stumps that were angled towards the power lines. Therefore, in order to maintain minimum power line clearance, NV Energy may have performed clearance pruning. Over the years of clearance pruning performed on this tree, the scaffold must have been redirected out of symmetry around the power lines. The asymmetrical form causes wind loads to be applied unevenly around the stem, putting torsional loads on the trunk. The amount of asymmetry that I estimated did not appear to be particularly problematic, so I rated this defect as minor.

Scaffold Health: 4 – No Apparent Defects. Because all of the primary scaffold branches were missing, I was not able to make an assessment on their health. If I had been able to observe the tree prior to the loss, I may have seen defects such as evidence of further sunburn injury or insect infestation. Because I did not have any evidence of such defects, I rated the tree accordingly.

Branch Health: 3 – Minor Defects. Since most of the branches of this tree had been removed, I was not able to rate the tree by direct observation. Rather, I observed the neighboring Aleppo Pines that were the same age and size and assumed that the subject tree had similar branch health. The neighboring Aleppo Pines each had evidence of "Aleppo Pine Blight," a common, albeit minor dieback of twigs in the outer portions of the canopy. Aleppo Pine Blight is associated with dry soils and cold, drying winds. On these trees, it did not appear to be a problem to the branch health, so I rated the defect as minor.

Foliage Health: 3 – Minor Defects. My justification for this rating was the same as for Branch Health. The Aleppo Pine blight affected small branches as well as the foliage. The reduction in health of the total canopy foliage of the neighboring trees was minor. I rated the subject tree similarly.

The total score for the condition rating was 27 out of 32. Therefore, I assigned a condition rating of 84%.

Trunk Formula Method Cost Solution

The basic cost is multiplied by the species, condition, and location ratings. The calculated amount is then rounded to reflect the level of precision in the appraisal. If the amount is less than $5000, then it is rounded to the nearest $10. If the amount is greater than $5000, then it is rounded to the nearest $100. The rounded amount is the appraised cost solution by using the trunk formula method with depreciation.

The last step is adding any additional costs. In this case, since the subject tree trunk remains, the trunk must be removed, and the site must be prepared for a replacement tree. I estimated the cost to remove the tree, grind the stump, and prepare the site for a new tree by using my personal anecdotal experience as a tree service contractor. The appraised cost solution plus the additional costs is the final appraised cost solution using the Trunk Formula Method with depreciation.

Detailed calculations are in the appendix.

Direct Replacement

Direct replacement technique calculates the cost to reproduce an identical copy of the subject tree and install it in the same site as the former tree at the present time. If this method is used, there would be no delay in the benefits provided by the tree because, in theory, it will match those benefits provided by the subject of the appraisal. No time would be necessary to allow the replacement tree to grow to parity if an identical reproduction is installed. When an identical size is not available, the largest actually available size is used. Note that this is not the same size as the LCATT.

The following costs are included in this technique:

- *Tree Acquisition*: The cost of acquiring a tree from the nursery is the sale price of the property. It reflects a combination of the supplier's cost of production and the general marketplace demand for a tree of that size. First, the largest actually available tree must be located. [redacted] referred me to a supplier in California that sold a 40-foot *Pinus halepensis*. I then obtained tree acquisition quotes from three other nurseries. One nursery had two adequate replacement trees: one was taller but had a smaller DBH, and the other one was shorter and had a larger DBH. Both trees were included in my calculation. One nursery's largest tree was much smaller than the others, so it was not included in the calculation because it was not an adequate replacement. I took the median cost of the remaining four possible replacement trees.

- *Delivery Cost*: Transporting the tree would require special equipment due to the size of the load. I obtained a quote from the suppliers for the delivery cost to [redacted]. One of four suppliers included delivery cost in the cost of the tree. This was reflected in the calculations of tree acquisition.

- *Site Preparation Cost*: Several tasks must be performed prior to the installation of the replacement tree:

    1. The remaining portion of the existing tree and stump must be removed. I estimated these costs of removal using my personal anecdotal experience as a tree service contractor.

    2. A portion of the adjacent wall must be demolished to fit the replacement tree in the same location as the former tree. A sufficient portion of the wall must be demolished to allow the installation of two piers on either side of the replacement tree's root ball to allow the new wall to bridge over the root ball without placing any new weight upon it. This appraisal does not include the cost of wall demolition.

3. Similarly, a portion of the rock wall feature behind the pool must be demolished to make room for the replacement tree. This appraisal does not include the demolition cost of the rock wall feature.

4. Excavation and site preparation must be performed with hand tools to avoid damaging the roots of the adjacent Aleppo pine.

- *Tree Installation*: Once the tree arrives on site, it will need to be unloaded with a crane. Since the projected planting site is a location with limited access, the crane will need to be large enough to carry the tree safely from the flatbed delivery truck to the planting hole. Installation should be directly supervised by a certified arborist to increase the likelihood of establishment after planting. After the tree is placed in the hole and its container is removed, the rest of the hole will be backfilled in lifts of soil 6-12 inches thick to minimize soil compaction.

- *Cleanup Cost*: Debris from the demolished wall and rock feature will need to be removed from site. After installation of the replacement tree, demolished wall and rock feature will need to be reconstructed. Any synthetic turf in the neighbor's backyard damaged by the installation project will need to be replaced as well. All of these costs will be necessary to return the site to its pre-loss condition. None of these costs were included in my appraisal.

- *Post-Installation Maintenance*: Maintenance beyond the regular maintenance required of an established tree is included because these are additional costs that must be borne over the course of the establishment period. I estimated these costs to include irrigation and monitoring by a Certified Arborist over a period of two years following installation.

    1. *Irrigation:* Supplemental irrigation is necessary during the establishment phase because the new tree will not have a root system in the site soil. Such irrigation will require additional water that would not have been necessary if the tree was already established. I calculated the cost of additional irrigation by referencing the water-holding capacity of sandy soil and the published cost of water. I then estimated the necessary frequency of irrigation and amount of water to apply based on the characteristics of the replacement tree species.

    2. *Monitoring:* Installation of a mature specimen tree typically requires reinspection every 6-12 months to ensure that the tree's needs are met through the sensitive establishment period. I estimated the cost of a Certified Arborist making 4 site visits over a two-year period of establishment. Monitoring efforts may include visual inspection for pests and pathogens and evaluation of available water. Appropriate actions may be taken to mitigate any discovered problems.

Reconciliation

I did not perform reconciliation as part of this assignment. I was instructed to simply provide my results for each of the techniques of the reproduction cost method that I used and an explanation of how I arrived at each result. It was not within the scope of this assignment to aggregate the results of each method and to conclude a final value.

Conclusion

I appraised the damaged Aleppo Pine using four methods. For the Trunk Formula Method I used the unit cost I calculated from nursery research and the unit cost that was published in the WCISA regional guide. The results are below. See the appendix for detailed calculations.

Approach	Method	Amount
Cost	Trunk Formula Method, no depreciation, calculated unit cost	$ 11,100.00
Cost	Trunk Formula Method, with depreciation, calculated unit cost	$ 5,890.00
Cost	Trunk Formula Method, no depreciation, WCISA regional guide unit cost	$ 12,300.00
Cost	Trunk Formula Method, with depreciation, WCISA regional guide unit cost	$ 6,400.00
Cost	Direct Replacement Method, no depreciation	$ 52,001.78
Cost	Direct Replacement Method, with depreciation	$ 25,255.22

The direct replacement method outputs do not include the cost of demolishing and rebuilding the adjacent property line wall and rock wall water feature. They also do not include repair of collateral damage to the neighbor's synthetic turf as a result of the installation work. Those costs would need to be added separately.

Limits of Assignment

My investigation was limited to above-ground observations of the subject tree and the surrounding site. My investigation was based solely upon my site inspection on [redacted] and the additional information that was provided to me. All of the information provided to me regarding the history of the project and the trees was assumed to be true. If any information is found to be inaccurate, the conclusions in this report could be affected.

I do not have expertise in engineering or general building contracting, so I did not include the cost of demolishing and rebuilding a wall and a rock feature in the direct replacement method calculation. These costs would need to be added to the result of the direct replacement appraisal from this report to obtain a more complete estimate of the cost of directly replacing the subject tree.

This report is not a risk assessment. My expertise in this matter is limited to arboriculture, and this report is not intended to be legal advice. I do not guarantee the safety, health, or condition of the subject trees. There is no warranty or guarantee, expressed or implied, that problems or deficiencies in the subject trees may not arise in the future.

Arborists are tree specialists who use their knowledge, education, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Works Cited

Council of Tree and Landscape Appraisers. A Guide for Plant Appraisal, 9th Edition. ©2000 CTLA.

SelecTree. "Pinus halepensis Tree Record." 1995-2017. Apr 27, 2017.
< http://selectree.calpoly.edu/tree-detail/pinus-halepensis >

Western Chapter of the International Society of Arboriculture. A Regional Supplement to the CTLA Guide for Plant Appraisal, 9th Edition. 2004.

Western Chapter of the International Society of Arboriculture. Green Book. Excel spreadsheet document. 1992.

Site Map

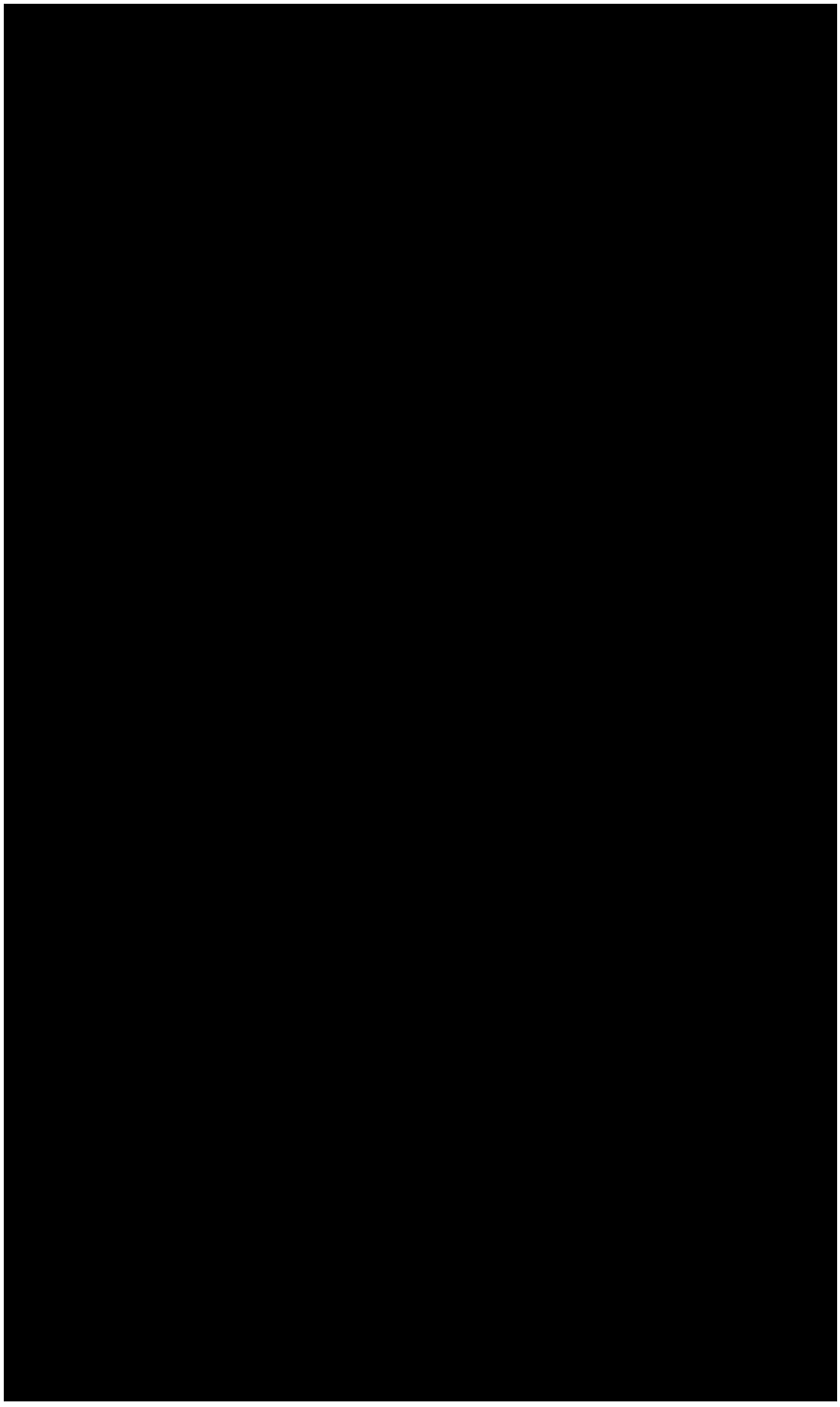

Figure 1: Site map showing the approximate location of the subject tree (yellow) and the neighboring Aleppo pines (grey). The location of the power lines is shown in purple.

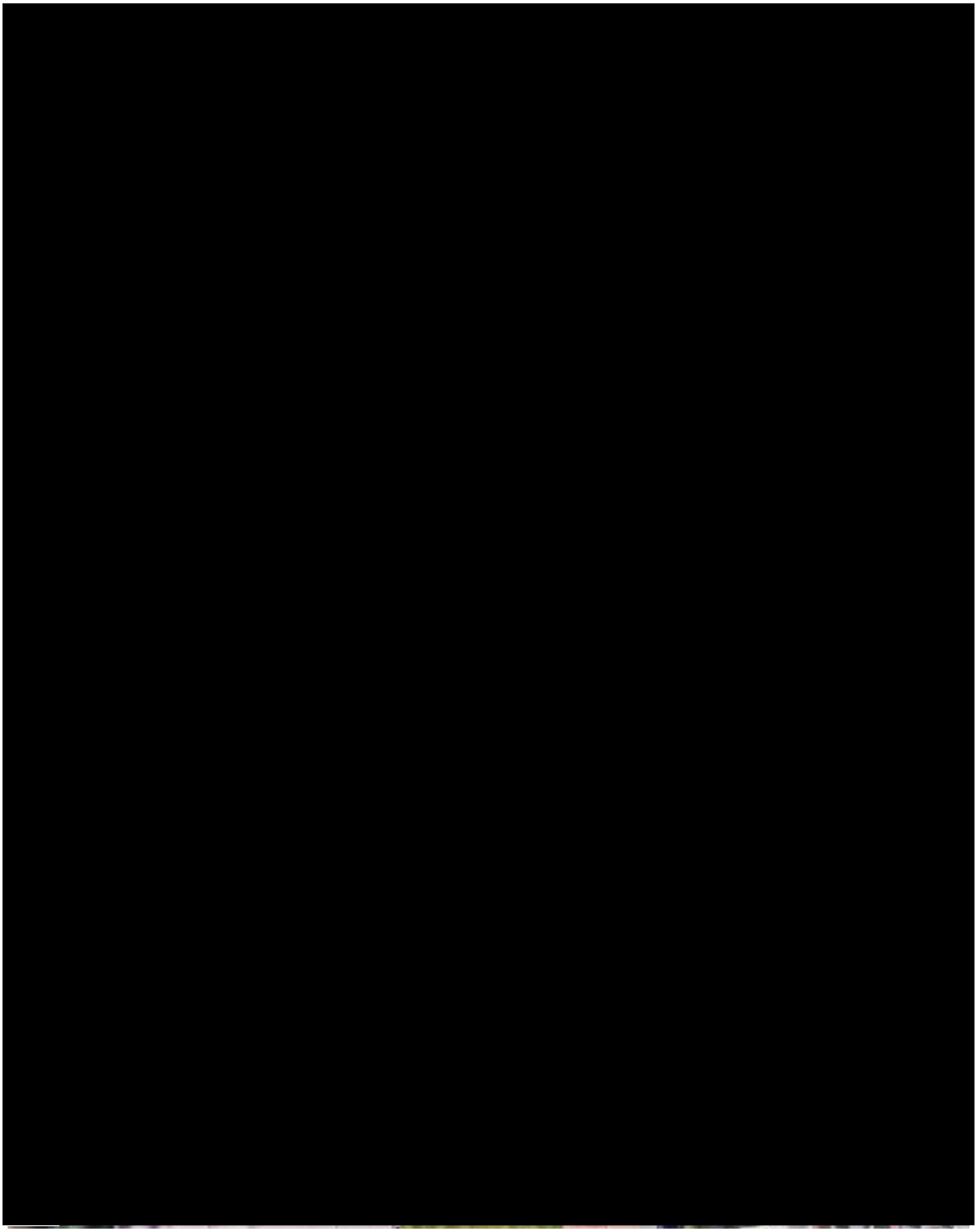

Figure 2: Angled aerial view of the site using Google Earth. The subject tree is shown in yellow, and the two neighboring Aleppo pines are shown in grey. The power lines are shown in purple.

Appraisal Calculations

Summary of Methods [redacted]

Approach	Method	Amount	Notes
Cost	Trunk Formula Method, no depreciation, calculated unit cost	$ 11,100.00	Cost to reproduce a notionally ideal tree of the same size and species of the subject tree by scaling up the unit cost to produce a smaller tree in the nursery. Unit Cost calculated by calling nurseries to obtain quotes for actual nursery stock
Cost	Trunk Formula Method, with depreciation, calculated unit cost	$ 5,890.00	Cost to reproduce a tree of the same size and species of the subject tree by scaling up the unit cost to produce a smaller tree in the nursery and then deducting for attributes that reduce the value of the subject tree. Unit Cost calculated by calling nurseries to obtain quotes for actual nursery stock
Cost	Trunk Formula Method, no depreciation, WCISA regional guide unit cost	$ 12,300.00	Cost to reproduce a notionally ideal tree of the same size and species of the subject tree by scaling up the unit cost to produce a smaller tree in the nursery. Unit Cost referenced from WCISA regional guide.
Cost	Trunk Formula Method, with depreciation, WCISA regional guide unit cost	$ 6,400.00	Cost to reproduce a tree of the same size and species of the subject tree by scaling up the unit cost to produce a smaller tree in the nursery and then deducting for attributes that reduce the value of the subject tree. Unit Cost referenced from WCISA regional guide.
Cost	Direct Replacement Method, no depreciation	$ 52,001.78	Cost to procure and install an identical replacement tree or the largest actually available; does not include cost of wall demolition or restoration
Cost	Direct Replacement Method, with depreciation	$ 25,255.22	Cost to procure and install an identical replacement tree or the largest actually available and then deducting for attributes that reduce the value of the subject tree; does not include cost of wall demolition or restoration

Unit Cost									
LCATT Diameter		3''	24" box tree						
LCATT Area		7 sq in							
Median Price	$	390.00							
Unit Cost	$	55.17							
	Nursery #	Nursery Name	Wholesale	Retail	Location	Contact	Phone	Notes	
	1	Moon Valley Nursery	$ -	$400.00	South Las Vegas, NV	David	(702) 358-0877	retail	
	2	Bamboo Pipeline	$ 166.60	$333.20		Desiree		wholesale	
	3	Village Nursery	$ 155.00	$310.00	Riverside, CA	Monalisa	714-984-4747	wholesale	
	4	Hurley's Nursery	$ 200.00	$400.00	Las Vegas, NV	Ryan	702-270-8338	wholesale	
	5	Treehouse Nursery			Las Vegas, NV		702-431-5240	l/m 5/16	
	6	Star Nursery	$ 195.00	$390.00	Las Vegas, NV	Cassie	702-360-7827	mondel pine only	
	7	Davis Nursery			Las Vegas, NV		702-384-2187	cant leave message	
	8	Valley Crest Nursery	$ 195.00	$390.00	Fillmore, CA	Jamie Mynatt	805-625-6015	pickup only	
	9	Blue Diamond						open fri-mon	
	10	Norman's Nursery	$ 145.85	$291.70	Las Vegas, NV	Diane	702-454-3898	minimum order $500	

Trunk Formula Method		
	Calculated Unit Cost	WCISA Regional Guide Unit Cost
Circumference	47''	47''
DBH	15''	15''
Cross Sectional Area	176 sq in	176 sq in
Unit Cost	$ 55.17	$ 62.00
LCATT Area	7 sq in	8 sq in
Trunk Area Increase	169 sq in	168 sq in
LCATT Cost	$ 390.00	$ 500.00
Basic Cost	$ 9,698.80	$ 10,898.77
Species	70%	70%
Location	78%	78%
Site	85%	85%
Contribution	80%	80%
Placement	70%	70%
Condition	84%	84%
Root Structure	3	3
Root Health	4	4
Trunk Structure	4	4
Trunk Health	3	3
Scaffold Structure	3	3
Scaffold Health	4	4
Branches Health	3	3
Foliage Health	3	3
Depreciated Cost	$ 4,487.21	$ 5,042.38
Additonal Costs	$ 1,400.00	$ 1,400.00
Removal of Tree	$ 1,000.00	$ 1,000.00
Removal of Stump	$ 400.00	$ 400.00
TFM Rounded	$ 5,890.00	$ 6,400.00
TFM No Depreciation	$11,100.00	$ 12,300.00

Tree Acquisition (Median)		$ 29,400.00									
	Supplier	Height	DBH	Area	Acquisition	Delivery	Total Cost	Location	Contact	Notes	
	Shady Tree Farm	45'	20"	314 sq in	$30,000.00	$ 1,800.00	$31,800.00	Caruthers, CA	Gary Christy	two trunks	
	Moon Valley	22'	12"	113 sq in	$ 3,000.00	$ -	$ 3,000.00	South Las Vegas, NV	David	not included in appraisal calculation due to small size	
	Bamboo Pipeline	36'		sq in	$17,550.00	$ -	$17,550.00	Source not disclosed	Desiree	DBH was not included in quote received	
	Brightview	41'	15"	177 sq in	$25,000.00	$ 2,000.00	$27,000.00	Fillmore, CA	Jamie Mynatt	taller, but smaller DBH	
	Brightview	38'	17"	227 sq in	$30,000.00	$ 2,000.00	$32,000.00	Fillmore, CA	Jamie Mynatt	shorter, but larger DBH	
Site Preparation		$ 1,400.00									
Remove Remainder of Tree		$ 1,000.00									
Remove Stump		$ 400.00									
Demolish Wall		Not included	Part of adjacent wall must be removed and rebuilt to allow room for installation								
Demolish Water Feature		Not included	Portion of water feature must be removed to allow room for root ball								
Tree Installation (Median)		$ 20,000.00									
Contractor #		Contractor Name	Crew Cost	Equipment	Total Cost						
1	Instant Jungle	$ -	$ -	$20,000.00							
2	CF Consultants	$ 15,000.00	$ 2,085.00	$17,085.00							
3	Brightview	$ -	$ -	$37,000.00							

Direct Replacement															
Cleanup Cost	Not included														
Repair of Synthetic Turf	Not included														
Repair of Wall	Not included														
Repair of Water Feature	Not included														
Post-Installation Maintenance	Total Cost		Cost of Water	Amnt per irrigation	Frequency	Period	Number of ir	Amount of w	Area	Water Capacity	Water volume	Gallons per irrigation			
Irrigation	$ 201.78		$ 3.18	.3305 water units	8 per month	24 months	192	63.4519482	25447 sq in	3 cubic inch per sq in	76341 sq in	330.48			
			Cost per visit	Frequency	Period	Number									
Monitoring and Adjustments	$ 1,000.00		$ 250.00	2 per year	2 years	4 visits									
Direct Replace, no depreciation	$ 52,001.78														
Species	70%														
Location	78%														
Condition	84%														
Direct Replace with depreciation	$ 25,255.22	only acquisition and installation were depreciated													

Photos and Figures

Figure 1: Looking southeast at the stand of three Aleppo pines behind the pool (below frame). The subject tree is the tree on the left.

[redacted]: Looking southeast at the subject tree growing in an irregular planting space behind a [redacted]ure (lower right of frame) and a wall along the property line.

[redacted] Looking north at the subject tree. Nearly all of its foliage was recently removed. It is [redacted] likely this species of tree would be able to survive in the long term as a result of the

[redacted] Close up of the top of the subject tree. I observed some old sunburn injuries that have pre-dated the pruning event discussed in this appraisal report.

[redacted]: Looking east over the property line wall. The subject tree is seen at the left of frame. [redacted]hbor's driveway would be the most feasible access point for a crane to unload the [redacted]ent tree. The property line wall (bottom of frame) would need to be demolished to allow [redacted]lation of the proposed direct replacement tree.

[redacted]: Trunk measurement was taken by threading the tape measure underneath lights that [redacted]ched to the trunk. The circumference was measured to be 3’11”. The DBH was [redacted]d to be 15”.

[redacted]: Looking south at Tree 3. This tree did not appear to be damaged by the pruning event [redacted]. This tree was approximately the same size and was likely planted at the same time as [redacted]ct tree. The condition of this tree I observed at my site visit likely represents the pre-loss [redacted] of the subject tree.

[redacted] Close up of some of the remaining foliage on the subject tree. The subject tree was still [redacted]e time of my observation, but it will not likely survive in the long term.

[redacted]: Looking south at the front of the subject property. The landscape is aesthetically [redacted] and well-kept. The neighborhood appears to have high relative market value based on [redacted] tic appearance.

[redacted]: Looking up at a worker making cuts on the subject tree. This photo was provided to [redacted]

[redacted]**1**: Looking northeast at the pile of brush removed from the subject tree. This photo was [redacted] to me by [redacted] I was told that it was taken at the same time as Figure 10. The green [redacted] dicates the branches were recently severed from the tree. This quantity of foliage [redacted] o constitute most if not all of the former canopy of the subject tree.

[redacted]: Looking southeast at the three subject Aleppo pine trees. They are approximately the [redacted] as each other. They significantly contribute to the aesthetic appearance of the [redacted] This photo was taken in 1997 and was provided to me by [redacted]

[redacted]**3**: Image of the replacement Aleppo Pine tree for sale by Shady Tree Farm. This photo [redacted] ided to me by a sales representative.

9500 Foothill Blvd.
Sunland, CA 91040
T. 818.951.5500
F. 818.951.8106
www.brightview.com

June 6, 2017

Class One Arboriculture
c/o James Komen
2832 Manhattan Ave
Glendale, CA 91214

Regarding: Specimen Tree Installation Project
[redacted]

Dear Mr. Komen,

BrightView Tree Company is pleased to provide our budgetary proposal for the Specimen Tree Installation Project at the above referenced site. Our budgetary proposal includes the following scope of work:

Bid Item:
Excavate planting pit, street closure, offload, set in excavated pit with crane, and plant the following owner supplied tree:

Quantity	Size	Description
1	108”	Pinus halepensis ‘Aleppo pine’

Total budgetary lump sum for the work as outlined above is $37,000.00

Please note: Any change in scope of work may require re-bid of proposal

Clarifications:

- This is a budgetary proposal; a job site inspection will be required prior to acceptance of a BrightView proposal. Should a job site inspection be requested it will be billed at T&M rates.
- Wall and pool side must be removed by other prior to BrightView installation of tree.
- Site is to be readily accessible to operation of a 500 ton crane, backhoe excavation, workmen with hand tools, semi-truck and trailer.
- Pricing is based on performing all work during normal business hours-Monday through Friday. Any work performed outside normal working hours will be charged a premium for the overtime labor.
- A water source is to be provided on-site.
- This proposal is based on performing the work in one continuous operation and includes one mobilization of crews and equipment to and from site. Any additional mobilizations to site will be billed at a rate of time and material.
- Soil generated by our excavations will be used as backfill to plant trees and to fill holes

created by removal of trees. Excess soil from excavations, if any, will remain on site.

- Unmarked underground or overhead utilities or re-routing thereof, are not the responsibility of BrightView Tree Company.
- Traffic control, lane closures and applicable street use permits are included in this proposal. Acquisition of permits, require 14-21 business days prior to scheduling and are subject to approval by the city.
- Import and compaction of excavation backfill are not included in this proposal.
- Demolition/removal of any hardscape or landscape is not included in this proposal. Any necessary removals must be complete prior to BrightView Tree Company mobilization.
- BrightView Tree Company will make every effort to protect existing hardscape and/or landscape. However, we are not responsible for repair or payment of repairs should any damage occur resulting from our operations.
- BrightView Tree Company is not responsible for damage due to events beyond our control, i.e. extreme or unreasonable weather conditions, vandalism, fire, etc.
- BrightView Tree Company reserves the right to renegotiate the above costs and terms should this project be delayed after award of contract.
- No warranty is provided in this proposal.
- This proposal is valid for thirty days from the above date.

Payment Terms:

Payment terms Specimen Tree: A 50% deposit prior to commencement of work to be performed. The balance is to be paid upon completion of our work.

An authorized signature in the space below will convert this proposal to an agreement and this will be our contract. If a formal contract is drawn, the descriptive language shall be made part of contract. Any changes must be approved prior to signature.

Please sign this proposal, return via fax or e-mail, mail original to our office, and keep a duplicate for your file.

Sincerely,
BrightView Tree Company

Anthony Gervasi
Sales and Operations
Anthony.gervasi@brightview.com

Authorized signature required below

Accepted By: _____

Title: _____

Company: _____

Date: _____

Gmail [redacted]

Las Vegas Tree Appraisal

[redacted] [redacted]

James,
Crane rental average $290 per hour - need for 4 hours. Companies Dielco - $395.00/hour; Morlock $185.00/ hour; Langford - no response.
Bobcat skid steer loader Model S750 - $300/day - need for 2 days.
185 cfm air compressor - $162.50/day average - need for 2 days. Companies Ahren rental - $200/day; H&E Equipment - $125.00/day

My crew - $15,000.00
Includes crew of three; air tool(s); travel expenses; subcontracting with local tree service for additional tools, etc.

That should cover it. Let me know if there is anything else or if I missed something. I'll send an invoice for my time.
Thanks
Jim

[redacted]

A society grows great when old men plant trees in whose shade they know they shall never sit.

-----Original Message-----
From: James Komen [mailto:jameskomen@gmail.com]
[Quoted text hidden]

Gmail [redacted]

Re: [redacted]
4 messages

[redacted] [redacted]

Hi James,

I just received this information from the landscaper who did a walk-through of the [redacted] property last week.

After reviewing all factors involved with this tree move, this is what the company, Instant Jungle, said it would take. Because of the size of the 109" size box, the 40 foot height, 30,000 pound weight of the tree and the height reaching approx. 125 ft, it would require a 500 ton crane. This is estimated to cost roughly $20,000. There would also need permit fees to transport the tree because it is an oversized load, which the nursery should be able to have some insight on.

There is also the expense of moving the power lines, if possible. Additional space will be necessary to plant a 9 x 9 ft. box, which would need to come from the neighbor's property, which is behind Mr. [redacted] home. Finally, there will additional costs for the wall between the two yards to be demolished , then re-constructed. He will also have to have his driveway removed, which will be very close to the pool, which could potentially be harmful to the roots.

Please let me know if you need any clarification on anything.

Repsectfully,

[redacted]

[redacted]

> Great! Thanks for all that info. I'll look forward to hearing back.
>
> James Komen
> BCMA #WE-9909B, RCA #555
> [redacted]
>
> [redacted]
> > I believe I gave you the specs that I had gotten from NV Energy in the last
> > email. NV Energy follows the codes in the National Electrical Safety Code.
> > He also stated that NV Energy requires that the trees be 10 ft. from the
> > power line, with the minimum distance being 6ft. He said that they would
> > also do a little less than 10 ft on the [redacted] trees, because [redacted] loves his
> > trees, and because that species of tree does not grow very quickly.
> >
> > I am trying to obtain an actual copy of the documents, but it will take some
> > time because we will have to subpoena them.
> >
> > We will be having a structural engineer out sometime next week, so I should
> > be able to get those numbers to you soon.
> >
> > [redacted]
> >
> > [redacted]
> >
> > I just placed a few calls out for quotes on replacement trees. I'll be
> > waiting to hear back over the next week. Once I get my information
> > together, I can consolidate my data for the appraisal report.

>
> I would still like to ask for a few things from your end:
> 1) specs for electrical line clearance pruning
> 2) cost of demolishing and repairing part of the adjacent wall
> 3) cost of repairing the neighbor's synthetic turf
> 4) cost of demolishing and repairing part of the water feature over
> [redacted] pool
>
> I'll keep you updated as I get more information. Let me know if you
> have any questions. I'll check back with you next week.
>
> James Komen
> BCMA #WE-9909B, RCA #555
> [redacted]

[redacted]

Great! My last contractor's bid comes in tomorrow afternoon, and I'll be doing the write-up shortly thereafter.

James Komen
BCMA #WE-9909B, RCA #555
[redacted]

[Quoted text hidden]

[redacted]

Can you send me the written estimate from Instant Jungle?

James Komen
BCMA #WE-9909B, RCA #555
[redacted]

[Quoted text hidden]

[redacted]

I will see if they can get it to me sometime tomorrow or Wednesday.
[Quoted text hidden]

The American Society
of
Consulting Arborists

in recognition of fulfillment of the requirements for

Registered Consulting Arborist® status

confers upon

James L. Komen, RCA #555

Registered Membership

June 9, 2014

Patrick B. Brewer RCA #543
President

Beth W. Palys, FASAE,CAE
Executive Director

INTERNATIONAL SOCIETY OF ARBORICULTURE

BOARD CERTIFIED MASTER ARBORIST™

James Louis Komen

Having successfully completed the requirements set by the Arborist Certification Board of the International Society of Arboriculture, the above named is hereby recognized as an ISA Board Certified Master Arborist®

Jim Skiera, Executive Director
International Society of Arboriculture

Certification Board, Chair
International Society of Arboriculture

Certification Number	Certified Since	Expiration Date
WE-9909B	Sep 04, 2014	Dec 31, 2017