CIVIC CENTER DRIVE TREE ASSESSMENT

TREE REPORT

For the property at:

CIVIC CENTER DRIVE
Beverly Hills, CA

Prepared for:
The Beverly Hills Corporation

Prepared by:
ASHLEY CONSULTING ARBORISTS

August 22, 2015

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EXECUTIVE SUMMARY

Two narrow strips of land zoned between Santa Monica Boulevard and Civic Center Drive in Beverly Hills harbor large, defective trees that by definition are ‘hazardous’.

Most of the hazardous trees are Eucalyptus species, many of which have already been removed over the years, and some of which have either recently failed completely or have shed branches over transportation or pedestrian routes.

The only means by which to diminish potential failure would be to either prune them improperly or to remove them. If pruning them to reduce the imminent chance of failure is selected as the preferred option, regular monitoring and selective pruning will be required over a long period of years to assist in reasonably diminishing the hazard.

The Eucalyptus are a nuisance, and a long-term liability. In my considered opinion, all of the Eucalyptus species should be removed.

In the immediate term a number of dangerous, defective branches overhanging both Santa Monica Blvd. and Civic Center Drive should be removed for protecting the public.

Furthermore, one extremely invasive species (Tree of Heaven) should be removed immediately to preclude its spread to surrounding properties.
ASSIGNMENT

Observe the existing trees on two (2) adjoining properties between heavily trafficked streets in Beverly Hills for safety and liability concerns.

BACKGROUND

A vacant property, once a corridor operated by the Southern Pacific Railroad on a route between Westwood and Beverly Hills lies between Santa Monica Boulevard and Civic Center Drive.

The land is zoned ‘Traffic’ and harbors no improvements.

The property is divided into two (2) sections, separated by Beverly Boulevard. For the purposes of this report the properties shall be identified as Lot 12, and Lot 13.

Both properties run west to east. No sidewalk exists along Santa Monica Blvd., but as no parking is allowed, vehicles travel in very close proximity to the properties. Along Civic Center Drive, both a sidewalk and parking areas exist along the south perimeter.

Between the two properties, along Beverly Blvd. a pedestrian sidewalk exists only on the north side of the street, at the western edge of Lot 13.

Lot 12 from Civic Center Drive

Lot 13 / Civic Center Drive
OBSERVATIONS

LOT 12

Lot 12, the westerly property is lined by trees and shrubs along Santa Monica Blvd., and by a 6' hedge of Indian Laurel (*Ficus m. nitida*) along Civic Center Drive. No vegetation resides on the interior of the property.

The entire property is surrounded by chainlink fencing, with a double gate enabling vehicular access at the east end of the property off of Civic Center Drive. The fence along Santa Monica Blvd. to the north is inset from the face of the curb approximately 6'. The fence along Civic Center Drive abuts the sidewalk to the south.

At the west corner of Lot 12, at the intersection of Civic Center Drive and Santa Monica Blvd. lies a volunteer species (*Ailanthus altissima*) designated 'invasive'.

The balance of trees fronting Santa Monica Blvd. consist of Chinese Elm (*Ulmus parvifolia*) and Desert Gum (*Eucalyptus rudis*). Although smaller shrubs reside between these trees providing a visual buffer they are insignificant with respect to this report.

The Chinese Elms in this area are planted inside of the perimeter fencing, and are shaped like large shrubs. These trees are completely contained within the fenced area.

Unlike the Chinese Elms, the Eucalyptus reside along Santa Monica Blvd. outside of the fence. These trees overhang the street. The trunks of the trees stand very close to the roadway, and some have deflected the adjacent curb, or grown over it.
LOT 12 OBSERVATIONS CONTINUED....

As a result of their close proximity to the street the Eucalyptus along Santa Monica Blvd. lack a balanced root zone. They also harbor multiple structural defects including weak branch attachments and excessive end weight. Many remnant trunk stumps remain from Eucalyptus already removed, and the remaining trees have either suffered branch failures in the past or harbor hanging limbs now. (See images in Appendix)

The Indian Laurel hedge along Civic Center Drive is completely contained within the fence. It is tidy, and provides a dense visual screen obscuring the visual blight of the bare interior earth.
OBSERVATIONS CONTINUED...

LOT 13

Lot 13 is replete with trees along most of the perimeter of both Santa Monica Blvd. and Civic Center Drive. All of the trees on this parcel lie within the surrounding chainlink fence. The fence along Santa Monica Blvd. is placed at the rear face of the curb. The fence along Civic Center Drive runs at the edge of the sidewalk for most of its run. A double gate exists at the south west corner of the lot.

Chinese Elm and Desert Gum are the dominant species along Santa Monica Blvd. Unlike on Lot 12 however, some of the Elms are large trees that overhang the street. A few of the Elms harbor decent form, and despite hanging over the street harbor no serious structural defects. Others however exhibit extraordinary growth habits. One in particular reaches over the street while harboring an unusual split in its trunk separating the two major branches emerging from the central stem.

A couple of smaller Elm Trees exude highly unusual growth patterns. The pattern of growth on one large tree close to the curb reveals intermittent wounds along its trunk and large branches although the wounds seem to emerge naturally, not associated with any damage from pruning or impact. Another’s trunk, rather than cylindrical ascends the tree in a diamond type pattern. This particular tree is rather small, and lies approximately 6’ inside of the fence.

Amidst the Chinese Elms lie Desert Gum Eucalyptus similar to those along Santa Monica Blvd. on Lot 12.
OBSERVATIONS CONTINUED, LOT 13...

These Eucalyptus also harbor numerous structural defects in their canopies and reveal multiple prior branch failures. Like Lot 12 there are numerous remnant stumps of Eucalyptus already removed from this site. Curiously the pattern of fence-line tree growth stops towards the east end of the property.

Ultimately, at the northeast corner of Lot 13 lies an enormous Aleppo Pine (*Pinus halepensis*). This tree rests in a natural state, appearing never to have been pruned. The foliage reaches virtually to the ground except where it reaches over Santa Monica Blvd. Structurally this tree defies physics and harbors such defects as inverse taper, co-dominant stem growth and included bark.
At the far easterly portion of Lot 13, along Civic Center Drive no trees exist. Rather a row of mixed ornamentals (Ficus, Cypress, Hibiscus, etc.) exist inside of the chainlink fence. No sidewalk exists at this portion of the parcel. These plants are rather tidy and do not overhang the parking area or street.

Moving west, two (2) rows of a Eucalyptus species (*Eucalyptus globulus* 'Compacta') run parallel to the street. The row closest to the sidewalk overhangs both the parking area and the street.

These trees exhibit numerous structural defects; including poor limb attachments, buried root crowns, inverse taper, excessive end weight, trunk deformation and stress cracks. Although many harbor foliar damage from a common predator, (Tortoise Shell Beetle) the damage is neither structural nor a serious source of stress. Despite limited supplemental irrigation the foliage reveals little if any symptoms of drought stress. The interior row of Eucalyptus is generally smaller than the row planted most closely to the sidewalk, but a few of the trees have long arching stems that were they to fail could cross the street. The interior row of trees, unlike all of the others are planted on a manufactured berm. All of the root crowns of these trees are buried.
A few of the branches of these trees precariously overhang the sidewalk and high traffic areas. One particular tree, at the westerly corner of the parcel overhangs the sidewalk at both Civic Center Drive and Beverly Blvd. Multiple branches extend over this passage-way with extremely poor attachments and no secondary or tertiary growth.

Other trees, both on the exterior and interior harbor stems emerging from prior pruning cuts that extend 30' - 40' from the original cut/wound with no secondary branching and thus minimal taper.

The vast number of defects in these trees are too numerous to catalog, but a few of them can be observed in the following images....
OBSERVATIONS, LOT 13 CONTINUED.....

Selected images of structural defects:

*Multiple branches emerging from decayed stem after 2-branch failures*

*Eucalyptus overhanging Beverly Blvd. sidewalk*
Selected images of structural defects continued...

Decay Column

Cracks

Included Bark

Torsional cracks

Close up of branch overhanging Beverly Blvd. sidewalk
Selected images of structural defects continued...

*Typical tree overhanging Civic Center Drive at Lot 13*

*Emergent branches attached to decayed stems, typical of improper heading cuts*
Selected images of structural defects continued...

Decay column

Inverse taper

Distorted, leaning Eucalyptus overhanging Civic Center Drive
DISCUSSION

A number of trees residing in the vacant transportation corridor present a danger and a nuisance to persons and property.

The nuisance tree is the *Ailanthus altissima* at the west corner of Lot 12. This species readily spreads by movement of it's very fine textured seed. The seed can spread by wind, or via bird droppings. Some believe it was brought to the Americas and to Europe via Chinese laborers constructing rail lines. Some suspect that the fine seeds embedded themselves in the pockets of these laborers and spread when clothing was washed in rivers adjacent to the rail lines. It is true that this species can be observed along train routes in both Europe and North America. This species is designated as *INVASIVE* by both the United States, and California.

Any tree that could harm or damage either person or property were it to fall entirely or partially is by definition a *HAZARD TREE*.

*Vehicular impact concern:*

Virtually all of the trees running along Santa Monica Blvd. have the potential to harm either person or property, and in fact many of them already have. Additionally, the remaining large Desert Gum Eucalyptus on Lot 12 that lay immediately adjacent to the street add the potential of being struck by an automobile.

*Unbalanced root zone concern:*

Large trees planted adjacent to streets, and thereby with unbalanced root zones are less stable than those with balanced root zones. In the case of all of the visible stumps of already demolished trees however, none appear to have yet failed at their root zone.
DISCUSSION CONTINUED....

Trunk/Root Rot Failure Concern:

Root crowns must be free of soil in order to defend against soil borne, fungal predators. Basal decay or rot stemming from predatory imbalances can be difficult to recognize, particularly in a species such as Eucalyptus that so efficiently stores reserve energy (starches) in its tissue. Unlike the trees planted along Santa Monica Blvd. on both Lot 12 and Lot 13 the Eucalyptus along Civic Center Drive, particularly those planted on a mound in the interior row suffer from buried root crowns. One can readily observe the reduced diameter of the trunk where emerging from the soil in comparison to that a few inches above the finish grade.

Branch, or Trunk Failure Concern:

Proper structure of trunks/stems and branches exhibits a continuously more narrow diameter as it grows away from either the ground or the limb from which it emerges. For instance, a pyramid with a base wider than the tip is inherently more stable than the reverse. Trees by their nature usually grow in a balanced manner with branches and stems emerging from a larger, thicker branch. (The Aleppo Pine on Lot 13 being a rare exception.

When the natural pattern of growth is interfered with, particularly associated with improper pruning, trees can grow in unpredictable, unbalanced ways. Most of the Eucalyptus on this property suffer from this condition described in this report as inverse taper. The issue of inverse taper is that physically, the emergent branch is larger (in diameter) and heavier than the stem it is attached to.
DISCUSSION CONTINUED....

Branch failure usually results from either weak attachments, unbalanced structure (ie. inverse taper) or excessive end weight. Weak attachments can result from the natural genetics of the tree or species, such as where two or more branches emerge from the same limb at the same place thus limiting full contact with the parent stem. The division of these branches is witnessed as included bark, where a ridge between the branches can be seen. In general, branches emerging from a larger stem in a tight v-shape pattern will harbor included bark. Branches emerging in a looser, u-shape pattern are typically fully attached to their parent stems and are stronger and less prone to failure. Other weak attachments emerge from improper pruning cuts. These cuts are referred to typically as topping or heading cuts.

Trees can naturally compartmentalize decay over time, but it is known that at the branch bark collar, the point of attachment, a natural branch will store a defense layer of cells that aid in compartmentalization and defend the larger stem from decay. Proper pruning (as directed in the ANSI-300 pruning guidelines) prohibits execution of pruning cuts away from this branch interface, or in the middle of a stem. The cells in the middle of a branch lack the efficiency of compartmentalizing decay, and often decay can eventually reach the original emergence point before the wound is sealed. Subsequent branches emerging from a heading or topping cut are not only naturally developing branches but are response branches inherently poorly attached, and worse emerge from wood that is continuing to decay. As this poorly attached limb continues to grow the force of gravity and end weight exerts increasing pressure on this weak point of attachment.

Most of the limb failures observed on the Eucalyptus trees on Lot 12 and Lot 13 result from improper pruning cuts that have distorted the natural growth of the trees and contributed to multiple load stress weaknesses.

Extraordinary growth patterns of 2-Chinese Elms

Two Chinese Elms, close together along Santa Monica Blvd. on Lot 13 exhibit extremely unusual growth patterns, already referred to in this report. My only experience with such rare, distorted growth habits has been associated with trees growing in soil contaminated with paints, solvents, turpentine, or heavy concentrations of metals. Knowing this corridor of land once harbored a railway it is possible that some of the soil has been contaminated. Perhaps this explains the lack of tree or plant material growth along the easterly portion of Lot 13 along Santa Monica Blvd.

Pattern of unnatural wounds on Chinese Elm at Lot 13
SUMMARY

The unimproved land in Beverly Hills lying between Civic Center Drive and Santa Monica Blvd. harbors hazardous trees that are a liability to the public and the owner of the property. Multiple trees have shed limbs or outright failed, and many have already been removed.

Some trees present an imminent threat of danger to vehicles (property) and pedestrians. These trees demand virtually immediate attention to diminish the threat of potentially catastrophic failure.

Other trees are so structurally impaired that to reduce their threat of failure, heavy, improper pruning would initially be required in short order. Of course, because in most cases such improper pruning contributed to the structural defects, a long period of monitoring and periodic restorative pruning would be required to reduce the hazard.

Assuredly, the ornamental Ficus hedge along Civic Center Drive at Lot 12, and the mixed ornamental plantings along Civic Center Drive to the east of Lot 13 are tidy, clean and present no threat to the public while demanding relatively little maintenance.

I recommend removal of the Eucalyptus, the invasive species, and the dangerous Chinese Elms.

RECOMMENDATIONS

1. Immediately remove the invasive Ailanthus altissima at the western corner of Lot 12.
2. Immediately remove one Chinese Elm on Lot 12 along Santa Monica Blvd. to remove the danger presented by a tree whose main trunk has failed, which has suffered two (2) recent, large branch failures, and currently harbors a broken branch suspended over the street.
3. Immediately remove the defective Eucalyptus limbs overhanging the sidewalk at the corner of Beverly Blvd. and Civic Center Drive to protect pedestrians and vehicular traffic.
4. Immediately remove the Chinese Elm on Lot 13 with the cracked main stem, with major limbs overhanging Santa Monica Blvd.
5. Immediately remove the Chinese Elm on Lot 13 with the unnatural pattern of wounding. This tree harbors quite a few limbs that hang over Santa Monica Blvd., and its structural integrity is impossible to measure.
6. Immediately remove long, poorly attached limbs overhanging Civic Center Drive on Lot 13. These precarious limbs could fail at any moment, and appear to be attracting people to park their cars beneath them for the shade they provide.
7. Consider removal of all of the remaining Eucalyptus along Santa Monica Blvd. at Lot 12. These trees present a potential liability to failure and vehicular impact not rewarded to the value of the property.
8. Consider removal of all of the remaining Eucalyptus species on Lot 13 due to structural defects prone to failure.
9. Schedule restorative and safety pruning of all trees to remain.
APPENDIX

[352 - 398] Civic Center Dr, Beverly Hills, CA 90210 Directions, Location and Map | MapQuest

Map of:
[352 - 398] Civic Center Dr
Beverly Hills, CA 90210-3620

Notes:
- Chinese Elm slated for removal
- Removed Eucalyptus
- Alpinus slated for removal
- Existing Eucalyptus

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http://www.mapquest.com/print?a=app.core.dbccce955e873ceeaacc45fc5

8/3/2015
Lot 12, Santa Monica Blvd. Demolished Eucalyptus
Link to recent report on structural failure of Eucalyptus written by: Larry Costello


Link to University of California Tree Failure Report on Eucalyptus globulus

http://ucanr.edu/sites/treecfail/Failure_Photos/Eucalyptus_globulus/
Civic Center Drive Tree Assessment

Certification of Performance

I, Peter D. Ashley, certify that:

- I have personally inspected the trees on the property referred to in this report, and have stated my findings accurately;

- I have no interest in the vegetation or the property in this report, and I have no interest or bias concerning the parties or individuals involved;

- The analysis, opinions and conclusions are my own, and based upon my current knowledge of scientific procedures and facts, as applied;

- My compensation is unrelated to any conclusions or findings beneficial or detrimental to the cause of any parties involved with the property, nor to any subsequent events;

- My analysis, opinions and conclusions are based upon commonly accepted arboricultural practices;

- No one provided me professional assistance in the preparation of this report, unless otherwise stated.

I further certify that I am a member of the American Society of Consulting Arborists, that I am an International Society of Arboriculture Certified Arborist, and that I have been involved in the practice of arboriculture for the past twenty-three (35) years.

Signed: Peter D. Ashley

This day of: August 22, 2015
LIMITATIONS

- No trees were tagged
- No measurements were performed
- No diagnostic hazard analyses were performed (strength tests, core samples, etc.)
- No soil or tissue samples were analyzed
- Photographs were not modified
- Links to work performed by others are available through the public domain of the internet
CURRICULUM VITAE

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Current Position

Sole Proprietor of Ashley Consulting Arborists
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Education

Bachelor of Arts University of California at Los Angeles (UCLA)
Geography, 1980

Certifications

Consulting Arborist American Society of Consulting Arborists (ASCA),
Graduate of ASCA Consulting Academy, 2002

Certified Arborist International Society of Arboriculture (ISA), # WC-1089,
1989

Certified Nurseryman California Association of Nurserymen (C.A.N.), 1987

Landscape Contractor CSLB C-27 # 1006849 2015

Professional Membership

Member of the American Society of Consulting Arborists
International Society of Arboriculture
International Society of Arboriculture, Western Chapter
C.A.N.
Professional Experience

- Landscape and Horticultural/Arboricultural Consultant
  1987 - Present

- Individual Sales Broker of Wholesale Nursery Stock
  1985 - 1987

- General Manager and Sales Agent for Winsel-Gibbs
  Nursery, (Malibu, CA) 1984 - 1985

- Yard Foreman of Boething Treeland Farms, Inc.
  (Woodland Hills/Moorpark, CA) 1980 - 1984

- Associate of James H. Cowan and Associates, Inc.
  (Malibu/Camarillo) 1987 to the present:

Personal Data

Year of Birth 1956

Citizenship United States

Status Married, with two (2) adult children

Updated: 8/28/2015