

Recommendations for Proposed Tree Ordinance Amendments

November 28, 2005

Thank you for this opportunity to comment on proposed amendments to the Tree Preservation Ordinance. Generally speaking, we agree that the ordinance can be improved to facilitate tree preservation while keeping with its spirit of protecting the environmental health and beauty of our community.

More specifically, we agree in principle with exempting invasive exotic trees from preservation requirements, so long as precautions are taken to avoid misidentification. While the "random grid method" promises to reduce costs while maintaining preservation, we find that the methodology is critically lacking in definition, numerical standards, and proven accuracy. We question what, if any, other jurisdictions utilize this method in their land development codes.

Although reducing mitigation for short-lived trees would seem to maintain an adequate replacement ratio for the specific trees that are removed, it does not address the needs of a rapidly disappearing urban forest.

Finally, the amendment that, in effect, eliminates root protection zones where alternative construction methods are used is troubling for several reasons. For one, there is no evidence the construction methods detailed on the City's website actually work. Also, the amendment specifies no limit on the use of such methods. And while the stated purpose of the amendment is to provide alternatives to be used during construction, there is no such limitation spelled out in the amendment.

Following are our comments and recommendations for each proposed amendment. Red text is the amendments as written by City staff. Dark blue text is the cTc recommendations. Black text is the current UDC language. Following each amendment is a rationale or explanation of the cTc position.

35-523 **Tree Preservation**

Item C –16, Page 5-157 - *Defining invasive species.*

(d) Protected Tree Designations

~~(3) **Invasive species**~~

~~Invasive exotic trees, including Chinaberry, Chinese Tallow, Tree of Heaven, Chinese Pistache, Ligustrum, Golden Raintree and Tamarisk will not be protected and can be removed without penalty or mitigation.~~

(3) **Optional process for excluding certain species from preservation requirements**

Where the person identifying and surveying trees for the Tree Preservation Plan meets the following criteria, invasive exotic trees may be excluded from the preservation requirements of this division.

- a) The person has satisfactorily completed a course in tree identification given by the Director of Development Services or a Certified Arborist, or
 - b) the person is a Certified Arborist, or
 - c) the person is a Registered Landscape Architect.
- Similarly, if the City Arborist has field-verified the identification of all trees designated invasive exotic on the Tree Preservation Plan, such trees may be excluded from the preservation requirements of this division.
- For purposes of this division, only Chinaberry, Chinese Tallow, Tree of Heaven, Chinese Pistache, Ligustrum, Golden Raintree and Tamarisk are invasive exotic trees.

Rationale: During stakeholder meetings preceding the 2003 Tree Ordinance revisions, development industry representatives were unanimous in stating their survey personnel were unable to identify individual tree species. cTc revisions help to prevent misidentification of protected trees as invasive exotics.

35-523 Tree Preservation

Item C –17, Page 5 –166 –Clarification of tree stand delineation alternative.

(e) Minimum Preservation Requirements

- (3) **Optional Tree Stand Preservation method Delineation Alternative**
- ~~As an alternative to a tree survey, preserving individual Significant Trees and Significant Trees under 6" DBH according to the requirements of Table 532-2, an applicant may elect to preserve Significant Tree Stands according to the following requirements:~~
- a) A Tree Stand Delineation Plan meeting 35-B125 must be submitted, and
 - b) a minimum of twenty-five percent (25%) of the total Significant Tree canopy must be preserved, and
 - c) in addition to the requirements in b), above, Heritage Trees and trees in Floodplains must be preserved in accordance with Table 532-2, and
 - d) understory vegetation within the Tree Stands and under the tree canopies must be left undisturbed.
- ~~a tree stand delineation may be used to meet the preservation requirements (see submittal requirements Section 35-B125). The amount of tree area(s) required to be preserved is twenty-five (25) percent. Within the tree save area, the existing understory must be included/preserved to meet the requirements of this elective option.~~
- ~~For projects utilizing the Tree Stand Delineation method for a tree survey with more than 100 acres of tree canopy, the applicant will have the option of completing a random grid method for calculating an average of Heritage tree diameter inches to be removed.~~

Rationale: The existing "Tree Stand Delineation" language has been a source of misunderstanding for applicants. cTc revisions serve only to clarify the intent of the optional preservation method.

With regard to the "random grid method" amendment, there is a critical lack of definition. *We cannot support the amendment as it is written.* Under the proposed wording, citizens have no assurance the method will accurately measure heritage tree removal. Notably lacking are any standards for confidence interval, sample standard deviation, and sample size.

While the distribution of heritage trees can reasonably be assumed to be random, one cannot make the same assumption about heritage tree removal and construction locations. For instance, it is likely that both heritage trees and construction will be found predominantly in valleys and low-lying areas, while samples will be taken from all areas, including steep slopes and other lightly-treed locations.

Given this uncertainty, it is appropriate to increase preservation and mitigation when this method is used. We would propose, in addition to clear numerical standards for sampling accuracy, that preservation be increased to 30% and mitigation ratios be increased to 1.5 to 1 for Significant Trees and 3.5 to 1 for Heritage Trees.

35-523 Tree Preservation

Item C –18, Page 5 –168 - Clarification of tree preservation standards for athletic fields.

(e) Minimum Preservation Requirements

~~(10) Athletic Fields~~

~~Athletic field(s) standards include a 25% preservation of Significant Trees and 100% preservation of "Long-lived Heritage" tree species. In addition, on athletic field sites with "re-growth"/multi-trunk tree species including Ashe Juniper, Huisache and Mesquite, can be removed without penalty or mitigation. This provision is not to enable a site to increase its impervious area.~~

Rationale: ISDs are already negotiating to be exempted or grandfathered out of tree preservation standards, therefore, this amendment would not seem necessary. In addition, the stipulation that "this provision is not to enable...increased impervious area" has no numerical standard associated with it, and therefore cannot be enforced. *We cannot support this amendment.* What is an "athletic field site"? Are such sites located on school grounds or are they independent stadiums? Is parking part of the athletic field site?

35-523 Tree Preservation

Item C –19, Page 5 –168 - Revision of tree mitigation table.

(f) Mitigation/Alternative Mitigation Methods

Table 523-2 Mitigation (B) Descriptions

Table 523-2 Mitigation		
(A) Method	(B) Description	(C) Restrictions

1. Establishment and maintenance of new trees at the required ratio on-site	Significant 1:1 Heritage 3:1 with the exception of Short lived trees species, including Hackberry (all species), Cottonwood, Ash (all species), Mulberry (all species) and Catalpa which will be mitigated at a 1:1 ratio.	
---	--	--

Rationale: In light of the outcry over destruction of a huge Cottonwood on Mission Road, this amendment does not seem to serve the interests of the community. Mitigation ratios are chosen not only to ensure timely replacement of heritage trees but also to discourage their removal. Payment of mitigation fees is a significant source of revenue necessary for restoring our urban forest. *We cannot support this amendment.*

35-523 Tree Preservation

Item C –20, Page 5 –170 - *Provision for reducing root protection zone during construction.*

(j) Root protection zone

The area contained within a root protection zone required under this subsection must be left in a pervious condition after construction and development are completed unless approved alternative construction methods are used. ~~In addition, the root protection zone may be reduced in parking areas where approved alternative construction methods and materials are used.~~

Rationale: There is a critical lack of definition to this amendment, and citizens have no assurance that it will not be detrimental to the health of preserved trees. It will promote root destruction and soil compaction within the root protection zone.

Referring to venting/aeration systems, the International Society of Arboriculture notes that “There is no scientific evidence that these treatments improve conditions for tree growth”. It also states “The most important impacts to minimize are root removal and soil compaction that occur as the area is prepared for installation of pavement.”

The cTc suggests that, if the City Arborist desires a tool to use during a project’s construction phase, that these requirements be added:

- a) No more than 5% of preserved trees (or one tree, whichever is greater) shall have substandard RPZs. To provide for flexibility during construction, the Tree Preservation Plan should show substantially fewer than 5% of trees with substandard RPZs.
- b) no more than 40% of the RPZ may be paved provided that:
 - a. The tree(s) are evaluated by a Certified Arborist to ensure that no roots larger than 1 in. diameter will be injured, and
 - b. paving is designed to minimize excavation, soil compaction and root injury, and
 - c. the entire pavement section is constructed on top of natural grade, and
 - d. soil inside the RPZ is compacted by hand-tamping and not by machinery, and
 - e. vehicle pavement is constructed using heavily reinforced concrete and pedestrian pavement is constructed of interlocking pavers or brick, and
 - f. geotextile fabric is placed directly onto the natural RPZ grade to reduce subbase compaction requirements, and

- g. no roots larger than 1 in. diameter are injured, and
- h. curbs are constructed on top of pavement and not dug into the root protection zone, and
- i. tree wells are positively drained.