



County of Fairfax, Virginia

MEMORANDUM

DATE: 10/24/2022

TO: DPD-UFMD Workgroup on Alternative Tree Planting Spaces

FROM: Stella Koch, Chair, Environmental Quality Advisory Council
Cindy Speas, Chair, Tree Commission

SUBJECT: Proposed Changes for Street Trees in the Urban Design Guidelines

The Environmental Quality Advisory Council (EQAC) and the Tree Commission (TC) thank the Department of Planning and Development (DPD) and the Urban Forestry Management Division (UFMD) for partnering to update the Urban Design Guidelines (UDG) to incentivize planting of additional trees in urban areas.

While both EQAC and the TC support the goal of increasing tree canopy in our urbanized areas, the presentations left us with concerns. Further details will be critical to the success of this proposal; however, our concerns are heightened as specific language changes were unavailable for our review. Even so, EQAC and the TC encourage staff to make adjustments to the plan prior to presenting this new proposal to the Board of Supervisors.

Our comments reference the new alternative planting standards by the shortcut labels of 1st, 2nd, and 3rd place, as presented to us and described to the best of our knowledge in the attached data table. Overall, we strongly recommend that the overarching goals of One Fairfax be more prominently factored into this plan to ensure tree equity with 1st and 2nd place plantings. Furthermore, we note that both the County-wide Energy and Climate Action Plan (CECAP) and the Resilient Fairfax plan highlight the importance of trees in mitigating and adapting to climate change impacts, including increased heat island effects and increased stormwater runoff. Trees and greenspace, especially larger trees will help to mitigate these impacts.

(1) We support 1st and 2nd place tree planting standards.

We recognize that achieving either of these standards could be challenging in the developed urban environments. However, we also recognize that receiving credit for the effort of doing so is a positive incentive to help get more, larger-scale shade trees in the ground. These trees

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planted in 1st and 2nd place conditions will be most likely to address two critical environmental problems today: stormwater and heat islands.

We recommend further *increasing* the incentives for planting large scale trees (e.g., willow oak) in these areas where soil volumes support these larger trees to thrive. Furthermore, we strongly urge the county to consider how the UDG could provide further incentives to select a native tree in preference to a non-native tree.

(2) We oppose credits proposed for the 3rd place alternative tree planting standards because it is excessive and will primarily serve visual aesthetics.

Substandard planting configurations that do not provide sufficient room for a healthy root system undermine the long-term health of our urban trees. We recommend this option be eliminated. Even when compared to the minimums in Tysons, 3rd place minimum soil volume is less (300 CF vs 400 CF), surface width is less (5' vs 6') and lack of requirements for additional underground considerations (e.g. cantilevered sidewalks) are lacking. At a *minimum* we recommend (1) reducing 3rd place tree canopy credit to no more than .5 tree canopy credit and (2) further *decreasing* the tree canopy credit for planting large scale trees (e.g. willow oak) in these small areas where soil volumes will not allow those trees to thrive. Trees planted in inadequate conditions such as these grow slowly, are prone to disease, struggle to survive, and they may not reach full size.

We *do not* oppose planting trees in these conditions, as we understand that our limited cityscapes make finding more soil volume a challenge at times. However, we *do* oppose giving tree canopy credit to trees planted in these conditions as these trees are not likely to provide long-term tree canopy credit after 10 years.

(3) We request that the Urban Design Guidelines include a stronger One Fairfax focus.

While these proposed changes would only affect 3.64% of Fairfax County's land mass, roughly 50% of the county's population lives within 1 mile of the activity centers where the changes will apply. Thus, these proposed changes to the UDGs would benefit a higher percentage of county residents with the greatest socioeconomic need. We urge the county to use 1st place or 2nd place standards in areas which have had a history of divestment in order to achieve a healthier, more robust tree canopy and bolster confidence in the county's intentions for better serving disenfranchised communities.

(4) We ask that the county establish clear, measurable metrics for evaluating the effectiveness of these changes in mitigating heat island effects and improving the quality of stormwater runoff.

Implementation and long-term monitoring, replacement, and enforcement are critical to developing a healthy, effective tree canopy. We recommend establishing clear consequences

when standards are not met or there is a lapse in maintenance. We ask that the county define measurable metrics for success and ensure the fiscal and/or staff support needed to ensure long-term success resulting from these UDG changes.

The success or failure of the program should not be complaint-driven only, but carefully monitored by staff. Three areas of concern are noted below.

A. Stormwater runoff

The plan should more effectively address and incentivize increased stormwater runoff control. Designing adjacent sidewalks or plazas around tree planting areas with pervious pavement to allow more water infiltration and breathable soils will benefit the urban trees and should be considered. Alternatively, stormwater boxes provide more stormwater capture than at-grade soil while also providing a mechanism to better water the trees.

B. Heat island effects

To more effectively address urban heat islands, the guidelines should encourage shade trees and evaluate the degree to which reducing temperatures is being achieved. Urban trees too often (1) die in sub-par settings and/or (2) smaller trees, which will not mitigate heat islands as effectively, may be planted more frequently based on the new criteria's smaller soil volumes. Both are situations that should be avoided.

C. Maintenance

Responsible parties must be designated to monitor, enforce, and replace trees. Trees planted as a result of these proposed new guidelines will be counted towards the 10-year tree canopy, however, these tree locations are likely to be some of the highest risk locations to plant a tree. The county's goals will not be met if there is not sufficient proactive monitoring of these trees. Additionally, planting in a VDOT right of way comes with the added risk of trees previously qualifying for tree canopy credits being permanently removed due to road widenings. The county should explore solutions with VDOT to compensate for lost trees in those instances.

In Summary

- We support the proposed 1st and 2nd place standards but oppose inclusion of the 3rd place tree planting standards qualifying for tree canopy credit.
- Without a structure to ensure success, we cannot expect improved tree equity in areas of the county which have long suffered from heat island effects, concrete deserts and low, to no, tree canopy. An equity lens is critical, and the current plan, especially if the inclusion of a 3rd place standard remains, seems to place an equal or greater emphasis on visual appeal than it does on mitigation of heat island effects or stormwater benefits.

- We recommend establishing plans to support implementation that include defining metrics for monitoring plantings, especially in areas with the greatest socioeconomic need (as identified through One Fairfax); establishing responsibility for identifying the need for replacement, overseeing replacement; and establishing perpetual maintenance agreements so that trees will be replaced when necessary.

Thank you for your consideration of our comments and your support of our urban forest.

Attached: Appendix 1

Via email: Brian Keightley, Hugh Whitehead, Todd Nelson, Joanne Fiebe, Ellen Alster, Suzianne Battista

cc: Chris Herrington, Director, Department of Public Works & Environmental Services
Terry Strunk, Director, Department of Planning and Development
Kambiz Agazi, Director, Office of Environmental and Energy Coordination, (OEEC)
Matthew Meyers, Division Director, OEEC
Rachel Flynn, Deputy County Executive
Fairfax County Board of Supervisors
Fairfax County Planning Commission

Appendix 1: Comparison of various alternative planting minimums

	1st place <i>(proposed)</i> Meets PFM standard	2nd place <i>(proposed)</i>	Tysons (available today)	3rd place <i>(proposed)</i>
Follows the PFM standard	Yes	No	No	No
Current tree canopy credit if planted <i>not</i> in a VDOT ROW	1x	0	?	0
Proposed tree canopy credit if planted in a VDOT ROW	1.5x	1x	?	.75x
Minimum soil volume (CF = cubic feet)	700 CF soil/tree 1,200 CF soil/2 trees 1,500 CF soil/tree for 3+ trees	Same as 1st place	400 CF (400-700)	300 CF
Requires structural cells	?	?	Yes ?	No
Other PFM provisions met	Yes	No	?	No
Minimum dimensions	6' wide at surface (+2' width below surface) ? length ? deep	6' wide at surface (+2' width below surface) ? length ? deep	6' wide at surface (+2' width below surface) ? length ? deep	5' wide at surface 15' long 3.5' deep
Distance of trunk from curb	4' min. from inside edge of curb	4' min. from inside edge of curb	4' min. from inside edge of curb	?
Perpetual maintenance agreement required in VDOT ROW	Yes	Yes	?	Yes