



Date: October 28, 2019

To: Wendell Davis, County Manager

Through: Jay Gibson, General Manager

From: Patrick O. Young, AICP, Planning Director

Subject: *Unified Development Ordinance* Text Amendment, Tree Coverage and Landscaping Revisions (TC1800005)

Summary

Text amendment TC1800005 includes amendments to landscaping, buffering, and tree coverage standards for additional buffers for residential development sites that are mass graded, to establish or retain more tree canopy, to modify requirements for street trees, and to strengthen current specimen tree requirements. Additionally, amendments pursuant to consideration of the *TreesDurham* requests submitted on October 2, 2018, are proposed.

Recommendation

That the Board of Commissioners approve the attached Ordinance to amend Article 4, Zoning Districts; Article 8, Environmental Protection; Article 9, Landscaping and Buffering; and Article 17, Definitions, of the *Unified Development Ordinance*; and approve the appropriate consistency statement regarding consistency with the Durham *Comprehensive Plan* and that the request is reasonable and in the public interest. Information supporting these recommendations is found within this memo, attached documents, and any information provided through the public hearing.

Background

On November 2, 2016, the Joint City-County Planning Committee (JCCPC) received an informational item regarding mass grading. The discussion at that meeting resulted in two requests from the JCCPC. The first was to initiate a text amendment that revised the mass grading buffers to match those allowed by state statute. The second request was to provide a report at a later date regarding the costs and benefits of mass grading, in order to provide policy direction to staff. The first request (text amendment TC1600006) was approved by the City Council in April and Board of County Commissioners in May 2017. After discussions with the JCCPC in June 2017 and April 2018, the JCCPC provided further guidance to staff, focusing on buffers for residential development in general, and with additional consideration regarding mass graded residential development.

The JCCPC was presented with a draft for review and comment on August 1, 2018, focusing primarily on project boundary buffers and existing vegetation requirements. Concurrent with JCCPC review, other city and county department, including respective Attorney's offices,

reviewed the proposed text changes. Following that review, comments were received at the Development Community Stakeholders Quarterly meeting held in September.

Furthermore, *TreesDurham* provided staff with comments regarding the overall landscaping section of the UDO. Those comments outlined some initial steps to encourage maintenance of existing vegetation, and will be used to inform decisions regarding broader ordinance changes and policies on landscaping and tree coverage resulting from the new Comprehensive Plan. Additional changes were considered through the Expanding Housing Choices project. As discussed with each governing body in August work sessions, the impact of additional, denser development in already developed residential areas may impact goals to maintain or expand an urban tree canopy.

Additional requests were submitted by *TreesDurham* on October 2, 2018. At the October 3, 2018, JCCPC meeting, the Planning Department indicated it would return with suggestions regarding the five requests at the December 5, meeting. The five requests were:

1. Require that developers plant street trees next to the street (in city ROW);
2. Require a minimum of 15% tree preservation during development of properties two acres and larger;
3. Hire arborists to review plans, enforce tree protection zones, and provide development landscape inspections and sign off;
4. Require tree surveys submitted to the city be conducted by arborists; and
5. Update the landscape manual to meet current scientifically based tree standards.

At the December 5, 2018, JCCPC meeting, staff presented responses to *TreesDurham* requests and a draft text amendment. The JCCPC commented that the draft text and additional proposed revisions based upon the additional *TreesDurham* requests were satisfactory and to move forward with the adoption process.

The Planning Commission recommended approval, 10-1, of the text amendment on February 12, 2019. The Planning Commission determined that the Ordinance request is consistent with the adopted *Comprehensive Plan* and that the request is reasonable and in the public interest.

The Durham City Council held a public hearing on May 6, 2019, and based upon additional comments provided by *TreesDurham*, referred the amendments back to staff for further consideration and to reschedule a new public hearing.

After additional meetings with *TreesDurham* the text amendment proposed as attached reflects the following changes from the May 2019 version:

1. Sec. 9.6: The revised location for street trees is not included, with the intent to bring forward another set of amendments to address street trees in the right-of-way.
2. Sec. 8.3: Additional amendments are proposed as requested by *TreesDurham*, including
 - a. Reducing the tree coverage exemption in Sec. 8.3 from four acres to two acres; and
 - b. Removing the exemptions for land previously used as agriculture.
3. Secs. 8.3 and 9.4: Additional revisions to tree preservation and buffer sections, proposed by staff, with the intent to encourage preserving existing vegetation.

The Durham County Board of Commissioners will consider this amendment at its September 21, 2019, meeting.

Issues

The *Tree Canopy Assessment for the City of Durham* (Attachment B) was performed by the City and issued in February 2017. This document provided tree canopy data and recommendations for the city regarding the future of its tree canopy. In short, it found that:

1. The City has approximately 37,000 acres of tree canopy covering 52% of the City.
2. All land uses have high tree canopy cover, with residential land use the predominant land use in the City.
3. All watersheds maintain approximately 50% tree canopy.

Maintaining, and increasing, tree canopy requires a multi-faceted approach that includes UDO regulations. One of the recommendations from that assessment was to consider regulations for tree cover, with specific focus on the residential land use due to the predominance of that land use within the City.

The *Durham Sustainability Roadmap* (Attachment C), issued in 2018, advanced a set of strategic goals with one of them focused on Natural Systems, and specifically to “protect and restore Durham’s natural resources and ecosystem.” Within that goal, one strategy included an expanded forestry program, with a goal to achieve and maintain a 55% tree canopy by 2040.

The 2018 *Urban Forest Management Plan* (Attachment D) issued by the City General Services Department reiterated many of the same goals and strategies outlined in the tree canopy assessment and sustainability roadmap. Under “Goal 1: Preserve, manage, and expand tree canopy,” one outcome would be that changes should be suggested to land development and redevelopment processes to emphasize preserving and enhancing tree cover on private land, particularly residential lots.

The issue of mass grading, concurrent with broader policy direction regarding maintenance of Durham’s tree canopy, resulted in the initial set of amendments provided to the JCCPC for review in August. The attached set of amendments (Attachment A) are based upon comments received from the JCCPC and input from *TreesDurham*, including the requests described above.

1. **Specimen tree and tree survey requirements.** Paragraph 9.4.5E, Specimen Tree Retained, is relocated to paragraph 9.4.3, Standards, modified to indicate “preserved” instead of “retained”, and to explicitly require a survey.
2. **Use of existing vegetation.** The use of existing vegetation is currently a component of the UDO landscaping requirements, where credit is given for existing, healthy canopy and understory trees. Existing vegetation is often better than replacement landscaping because, when protected appropriately, it maintains a natural, undisturbed ground cover and canopy that is often better suited for long-term stability and health, as compared to newly-planted vegetation that is often in graded and compacted soil. The following are proposed:
 - a. Paragraph 9.4.4, Natural Buffers:

- 1) Revisions to required natural buffer standards to increase the instances when a natural buffer would be required:
 - Lower the opacity threshold from 80% to 60%; and
 - Lower the existing tree canopy coverage from 75% to 25%.
- 2) Reduce the required minimum buffer width threshold from 50 feet to 30 feet.
- 3) Modify the optional natural buffer requirement by reducing the minimum required width from 25 feet to 20 feet. This may incentivize more use of existing vegetation when not otherwise required.
- b. As noted above, revised and relocated text regarding specimen trees, currently found in paragraph 9.4.5E, Specimen Trees Retained, to clarify the intent is to protect such trees and to more explicitly require surveying as necessary to demonstrate protection of such trees.
- c. Paragraph 9.6.3, Credit for Existing Trees: Additional text explicitly stating the minimum amount of required street trees no matter the credit received.
- d. *Added subsequent to the May City Council hearing:*
 - Revise root protection area for tree preservation to focus on the amount of area “undisturbed” and to indicate rights-of way to be considered “disturbed area”.
 - Align the minimum size for tree preservation with the minimum root zone requirements.
3. **Increase buffer requirements in certain instances.** The UDO currently requires buffers based upon zoning districts, but recognizes certain use or development circumstances that may warrant different buffer intensities. Buffers are typically employed to mitigate visual impacts between neighboring uses and along streets, while also functioning as an additional method to maintain or provide tree coverage. The following are proposed:
 - a. *Paragraph 9.4.2A, Along Rights-of-Way:* Additional text is proposed for residential developments in the Suburban Tier that changes the buffer exemption along right-of-way from 60 to 80 feet.
 - b. *Paragraph 9.4.3C, modifications to the Project Boundary buffer Table:* Additional text is proposed that establishes a minimum 40% opacity requirement for Suburban Tier residential mass grading projects.
4. **Revision to the mass grading definition.** The current definition states “The grading of four acres or more at one time to prepare one or more lot(s) for construction.” This definition is modified with additional text that clarifies that staged or phased grading will still count as mass grading. No changes to this have been proposed in the revised draft.
5. **Modification to Tuscaloosa-Lakewood NPO.** Paragraph 4.6.5C.1, Landscaping, is modified to apply tree coverage requirements consistent with the proposed Urban Tier tree coverage changes, and to clarify that the tree coverage requirements are to be met on individual lots. This is consistent with current application of the ordinance but has been identified as requiring more explicit text.
6. **TreesDurham Requests**
 - a. **Sec. 9.6, Street Trees.** One concern raised by *TreesDurham* is that street trees, in all zoning districts other than Design Districts, are required to be outside of rights-of-way unless specifically allowed by Public Works or NCDOT, as applicable. Staff agrees that placement of trees in the right-of-way better utilizes the tree for actual “street tree” purposes, such as aesthetics and cooling. However, more consideration of the

impacts of the placement of trees within right-of-way, such as impacts on existing utilities, new roadway designs, liability, and necessary resources for maintenance and replacement, is necessary before taking this action. Staff has reviewed other ordinances, including historical Durham ordinances, and had previously proposed reducing the maximum setback from the right-of-way from 30 feet to 10 feet. *Update: As noted above, this section was removed after discussions with TreesDurham with the intent to initiate another set of amendments to address achieving the goal of street trees within rights-of-way.*

Consistent with the May City Council proposal, staff has also proposed an additional modification to the amount of street trees. When understory trees are proposed, the number of trees is revised from one tree per 40 feet of street frontage to one per 30 feet of frontage.

- b. Sec. 8.3, Tree Protection and Tree Coverage.** Within the Suburban Tier, the UDO currently maintains a required tree coverage requirement range of 20%-25%, where it incentivizes tree preservation by requiring 20% tree coverage, and requires additional area as less *preservation* and more *replacement* is proposed (i.e. 25% is required if all tree coverage is proposed as replacement). In the Urban Tier, as a result of the EEUDO project in 2008-09, a 3% tree coverage requirement was established for residential development (none for non-residential development). The following revisions are proposed:

- 1) For residential development in the Suburban Tier, text is revised to require 20% tree preservation and allow replacement at the current amounts if 20% is not achievable.
- 2) Require an additional tree planting, or retention of an existing tree, on a residential lot for Suburban Tier subdivisions.
- 3) For residential development in the Urban Tier, the current 3% tree coverage requirement is revised as follows:
 - Establish a range, from 7%-10%, where 7% is required preservation and allow replacement if preservation is not achievable.
 - Applicable to development that does not qualify as infill per Sec. 6.8, Infill Development in Residential Districts.
 - Add text to require all other development shall provide a minimum 3% tree coverage, where none is currently required.
- 4) *Added subsequent to the May City Council hearing:*
 - Reduce the tree coverage exemption threshold from four acres to two acres, including development in RR and RS-20.
 - Remove the tree coverage exemption for sites that were previously used primarily for agricultural purposes.

- c. Paragraph 9.2.4, Landscape Plans.** Revised text adds “arborists” to the list of professionals permitted to submit landscape plans, and to clarify that other professionals not listed must have similar qualifications as landscape architects or arborists.

- d. Items unrelated to text amendments.**

- 1) **Hire arborists to review landscape plans.** Most development review staff already maintains proficiency as certified landscape architects with ASLA

and/or RLA certification, and General Services' Urban Forestry Division review planting plans within right-of-way and inspects the plantings. Staff that performs site compliance planting inspections on private property is a resource issue, and most site compliance inspectors do not have landscaping proficiency. This will be a consideration as new hires are sought, and additional training for existing inspection staff will also be considered.

- 2) **Update the Durham Landscape Manual.** The Durham Landscape Manual received a significant update in 2012. It includes appropriate planting of canopy, evergreen and understory trees, and shrubs. New species lists, new location and planting requirements, and updated invasive species lists were established. Staff has begun a review of the manual to determine what updates are appropriate and will coordinate with *TreesDurham* to receive additional input.

Consistency with the *Comprehensive Plan*; Reasonableness and in the Public Interest. These amendments are supported by the *Comprehensive Plan* under Goal 4.1, Community Design Guidance, which states:

"Provide guidance in the design and development of the community to ensure a visually appealing, functional, and sustainable built environment."

The amendments are further supported under Policy 4.1.1h, Landscaping Requirements, which directs the UDO to "... maintain landscaping standards that:

i. In the Suburban Tier, emphasize preservation of tree cover and both natural and manicured visual appearance, encourage the use of native species and water-wise landscaping to minimize the impacts of drought events on the suburban landscape, and require measures to ensure the long-term stability and survival of required landscape materials."

The proposed standards appear reasonable and in the public interest since the additional buffers promote community design policies, and the use of existing vegetation in more circumstances not only promotes design policies, but lends itself to more stable and healthier landscaping.

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Attachments:

Attachment A: Statement of Consistency Pursuant to NCGS § 153A-341

Attachment B: An Ordinance to Amend the *Unified Development Ordinance* Regarding Tree Coverage, Landscaping, and Buffer Revisions (TC1800005)

Attachment C: Tree Canopy Assessment

Attachment D: Sustainability Roadmap

Attachment E: Urban Forest Management Plan

Attachment F: *TreesDurham* October 2, 2018, requests

Attachment G: Planning Commission comments