



TREE SURVEY, PROTECTION, REPLACEMENT AND MAINTENANCE

Sec. 14-39. - Tree protection.

Prior to submitting an application for a development/building or land-disturbance permit, the applicant is encouraged to meet with the County Arborist (CA) to discuss the tree protection code as it relates to the applicant's permit. The purpose of the meeting is to clarify the provisions and procedures of DeKalb County's tree protection land development code and review applicable standards and guidelines for the submittal of documents. Initially, the required document submitted is the tree survey. During the permitting process a tree protection, replacement, and maintenance plan shall also be submitted.



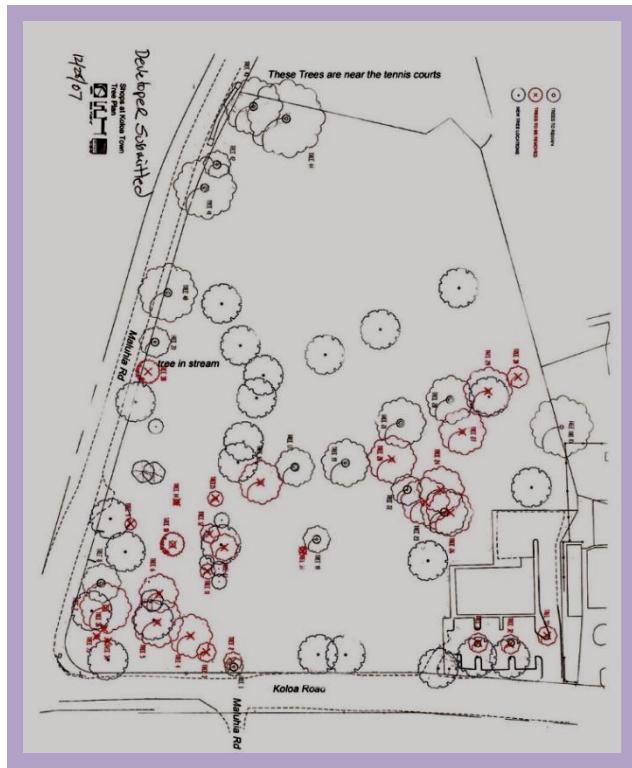
TREE SURVEY

The applicant shall provide a separate TREE SURVEY (TS) for the following:

- Land-Disturbance Permit
- Development Permit
- Building Permit
- Preliminary Subdivision Plat

The **TS** shall include a drawing of the site which includes the location and **DBH** of **ALL** **SIGNIFICANT** Trees (8" DBH or greater). It is recommended that a table or spreadsheet also be submitted that includes the following:

- Tree Identification Number
- Species or Common Name
- Condition
- DBH
- Density Units
- Remain/Remove
- CRZ



ALL trees that are $\geq 8"$ **DBH** shall be on the **TS**. Specimen trees (**DBH** $\geq 30"$ for Overstory trees. **DBH** $\geq 10"$ for Understory trees.) shall be listed. Significant trees are defined as any existing, healthy, living tree $\geq 8"$ DBH.

If significant trees, **DBH** $\geq 8"$, are on the project site, then either 120" DBH/acre or 25% of existing significant trees/acre shall be preserved on the site, whichever is less. Except for municipal centers and industrial sites zoned C-1, C-2, M, or M-2, trees and tree save areas counting toward tree density requirement SHALL NOT be located in required buffer zones. Trees and tree save areas counting toward tree density requirement on sites zoned C-1, C-2, M or M-2 may be located in stream buffers and state buffer zones, transitional buffer zones and designated floodplains.

If the CA determines that special constraints of a site result in an inability to build or develop without removing significant trees, where there are only 120" DBH/acre or less of existing significant trees, the CA may permit the removal of one or more significant trees. Trees removed must be replaced with trees $1.0 * \text{DBH}$.

Trees are to be clearly marked if they are to remain on the site or are to be removed. To determine densities of forested areas tree sampling areas may be used. This must be approved by the CA. Sampling should be conducted by an urban forester. Trees with **DBH** $\geq 2"$ may be used for Unit Density Credits (**UDC**) on the Tree Protection Plan (**TPP**). If so, then these trees must be included in the **TS**. To assist the plan designer and the CA the table below should be submitted with the **TS** plan.

<u>Tree Number</u>	<u>Species</u>	<u>Condition</u> (Good, Fair, Poor, Dead)	<u>DBH</u> (inches)	<u>Density Units</u>	<u>Remain/Remove</u>	<u>CRZ (feet)</u> (If tree is to remain)

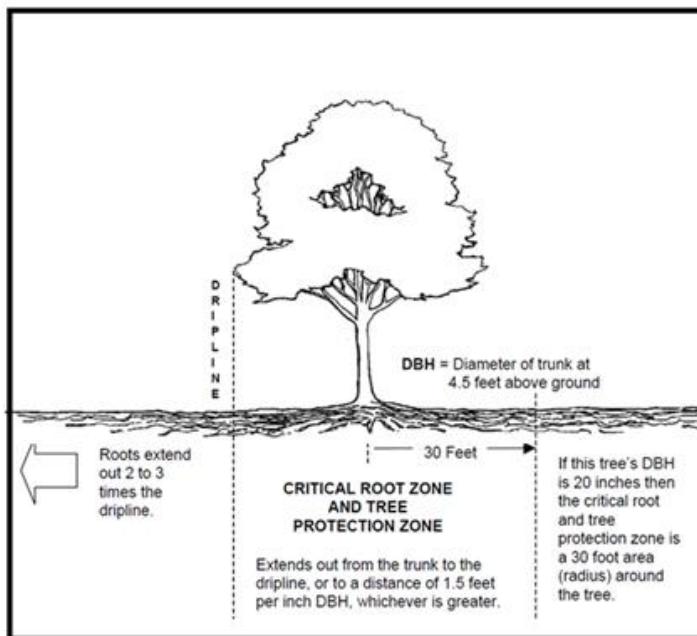
TREE PROTECTION PLAN

A Tree Protection Plan (**TPP**) shall be submitted as either a separate drawing or part of the landscape plan. The following shall be included in the **TPP**:

Definition of spatial limits:

- 1. The limits/areas of Land Disturbance Activities (LDA) including but not limited to clearing, grading, and trenching.**
- 2. Tree save areas;**
 - Procedures and schedules for the implementation, installation, and maintenance of tree protection measures.
 - **Identify Tree Save Areas (TSA).** Please see the Manual for Erosion and Sediment Control in Georgia or the International Society of Arboriculture (**ISA**) for **BMPs** regarding **TSA**. The **TSA** includes the Tree Protection Zone (**TPZ**) and the Critical Root Zone (**CRZ**). DeKalb County defines the **CRZ** as the following:

Radius of CRZ (measured in feet) = DBH (measured in inches)
DBH is measured in inches and **CRZ** is measured in feet.



To calculate the diameter at breast height, **DBH**, of a tree you must measure its circumference and then divide by 3.14 or π . The measurement of the circumference must be taken 4.5 feet above the ground.

$$\text{Diameter (DBH)} = \text{Circumference} \div \pi.$$

Example:

If a tree has a circumference of 84", then the **DBH** is 26.75" or 27".

The **radius** of the **CRZ** for this tree is 27'. The **diameter** of the **CRZ** is 54'

DeKalb County code states that an additional 6' be added beyond the **CRZ** whereby no building/construction material, vehicles or equipment be placed.

3. Specimen trees;

- **Identify Specimen Trees.** The identification, preservation, and protection of specimen trees is as follows:

Any tree in fair or better condition which equals or exceeds the following diameter sizes:

- ✓ Large hardwoods, i.e. oaks, hickories, yellow poplars, and similar species; **DBH $\geq 30"$.**
- ✓ Large softwoods, e.g. pines, evergreens, and similar species; **DBH $\geq 30"$.**
- ✓ Small trees, e.g. dogwoods, redbuds, sourwoods, and similar species; **DBH $\geq 10"$.**



A specimen tree in fair or better condition should meet the following minimum standards:

- ✓ A life expectancy ≥ 15 years.
- ✓ A relatively sound and solid trunk with no extensive decay or hollow/cavity, and $\leq 20\%$ radial trunk dieback.
- ✓ No major insect or pathological problem.



A lesser-sized tree can be considered a specimen if:

- ✓ It is a rare or unusual species or of historical significance.
- ✓ It is specifically used by a builder, developer, or design professional as a focal point in a project or landscape.
- ✓ It is a tree with exceptional aesthetic quality.

The **CA** may identify and require the preservation of a tree stand if it contains one (1) or more specimen trees and the specimen trees are interlocked with other members of the stand in such a way as to imperil the specimen tree if other members of the stand were to be removed.

If removal of the specimen tree has not been approved by the **CA**, then it is prohibited to cut specimen trees existing on a tract of land that is the subject of a land disturbance permit, development permit or building permit without a special exception granted by the Zoning Board of Appeals (**ZBA**).

Any specimen tree removed from a parcel shall be replaced by one and five-tenths (1.5) times the equivalent inches (**DBH**) of replacement trees or existing trees in excess of the tree preservation and replacement requirements, using species with potentials for comparable size and quality at maturity.

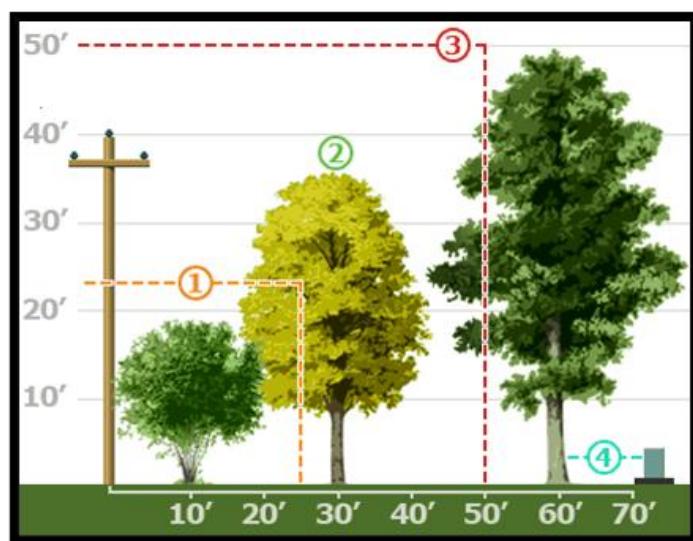
Any specimen tree that is negligently damaged and must be removed from a parcel shall be replaced by a 4" caliper tree using the following formula to calculate the Replacement Trees (**RT**):

$$\mathbf{RT} = \mathbf{DBH} \text{ of specimen tree} * 1.5$$

Any tree, designated in the **TPP** to be saved, which is negligently damaged during construction or as a result of negligent construction, shall be replaced with four-inch (4") caliper trees equal to the unit value of the tree removed.

4. Areas of revegetation.

- The tree protection plan shall include planting schedules with proposed tree names (botanical and common), quantity, size spacing, and any special planting notes. Trees used for credit on the tree replacement plan must be chosen from the preferred list attached hereto as Appendix A to this section 14-39.
- At least fifty (50) percent of replacement trees must be overstory trees; no more than twenty-five (25) percent may be of any single species, and no more than twenty-five (25) percent may be of evergreen species.
- The **TPP** shall show all existing and proposed utility lines. Also include irrigation, water and sewer lines, the location of fire hydrants, and above and below ground electric, cable and phone lines. The applicant shall coordinate the location of these utility lines with the utility companies in order to prevent root damage within the CRZ of protected trees, and to minimize damage to trees located in protected zones.



- The Development or Building Permit can only be issued until the **TPP** has been approved by the **CA**.
- All tree protection and **E&SC BMPs** shall be installed before any **LDA** can begin.
- Location, species and **DBH** of all existing significant trees shall be on the **TPP**. A significant tree is any existing, healthy, living tree $\geq 8"$ **DBH**.
- **Tree Fences** – Trees identified to be preserved and counted as credit for meeting Required Unity Density shall have 4' high, orange protection fencing installed at the periphery of the **CRZ** as a minimum.



Example of noncompliance to CRZ



Compliant Tree Save Fencing

Can be any sturdy material, t-posts, wood etc.

The following notes shall be on the **TPP**:

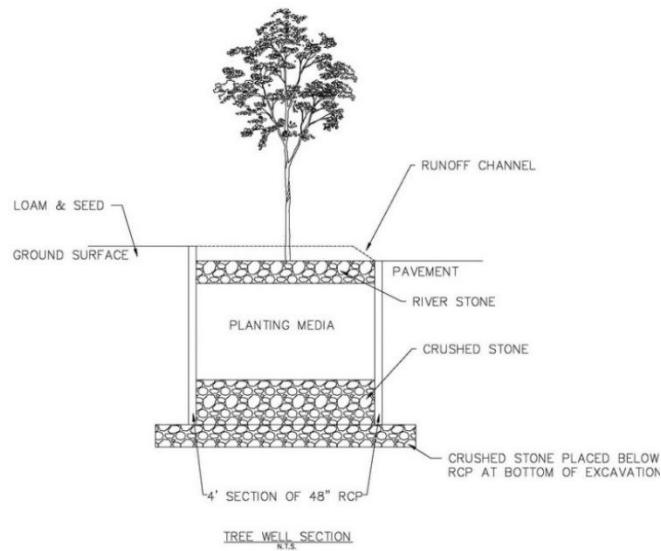
1. No one **SHALL** encroach, place solvents, building, machinery, building debris or any other material within 6' outside the periphery of the **CRZ** or within any Tree Save Area, transitional buffer zone, stream buffer, or state buffer zone.
2. All Tree Fence and other tree protection devices must remain in functioning condition until completion of the project or until the CO is issued.
3. A tree that is designated to be saved, but is damaged during construction, **SHALL** be replaced with 4" caliper trees equal to the unit value of the tree removed. Any specimen tree damaged **SHALL** be replaced with 4" caliper trees equal to 1.5 times the DBH of the damaged specimen tree.

1. ALL TREE PROTECTION AREAS TO BE PROTECTED FROM SEDIMENTATION.
2. ALL TREE PROTECTION DEVICES, INCLUDING CRITICAL ROOT ZONE (CRZ) PROTECTION, TO BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE, AND MAINTAINED UNTIL FINAL LANDSCAPING.
3. ALL TREE PROTECTION FENCING TO BE INSPECTED DAILY, AND REPAIRED OR REPLACED AS NEEDED.
4. NO PARKING, STORAGE OR OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS (CRZ).
5. ALL REQUIRED VEGETATION MUST BE MAINTAINED FOR TWO GROWING SEASONS AFTER THE DATE OF FINAL INSPECTION.

- **Tree Protection Signs** are to be placed at least every 50' along the length of the Tree Protection Fence. The signs should be in language so that all workers on site are able to understand.



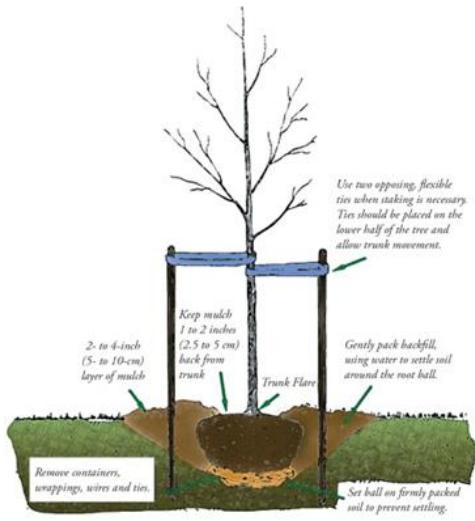
- **Tree Wells and Islands** – Provide detailed drawing.



- **Aeration Systems** – Provide detailed drawing.



- **Transplanting Specification** – It is recommended that replacement trees be ecologically compatible with the site. When practical replacement trees shall be of the same or similar species of those removed. Replacement trees shall be planted with adequate spacing for nourishment, light and growth.
- **Staking Specifications**



The applicant shall landscape the areas with trees and other plant materials in accordance with the following standards:

- ✓ **Residential developments:** All residential subdivisions shall have an average of fifteen (15) density units per acre. Required trees may be located on individual lots. Zoning requires that at least two (2) two-inch (2") Overstory trees be planted in front yards for properties zoned residential. Trees may be planted in subdivisions in which there is commonly owned property in order to meet density requirements. The total tree density units required for a parcel or lot shall be computed based on the area of the parcel or lot, excluding all area within the 100-year floodplain.

- ✓ **Non-residential and multifamily developments:** The total number of existing/replacement trees on site must have a site density factor of no less than thirty (30) density units per acre. The total tree density units required for a parcel or lot shall be computed based on the area of the parcel or lot, excluding all area within the 100-year floodplain.
- ✓ Total tree density units required for C-1, C-2, M, or M-2 zoned property shall be computed based on the area of the parcel or lot, including all area within the one-hundred-year floodplain.
- **Tree Protection Inspection** – Following submittal of the application, the **CA** shall schedule and conduct an inspection of the site prior to development. The applicant or applicant's designee shall be advised as to the date and time of the inspection and given an opportunity to participate.

After inspection the **TPP** shall be reviewed by the Director for conformance with applicable zoning conditions, the tree protection ordinance, and any other applicable administrative guidelines. The Director will either approve or deny the plans. Reasons for denial shall be noted on the **TPP** or otherwise stated in writing.



No certificate of occupancy can be issued until it is confirmed that all existing trees to remain are in healthy condition and all replacement trees have been planted.

TREE REPLACEMENT PLAN

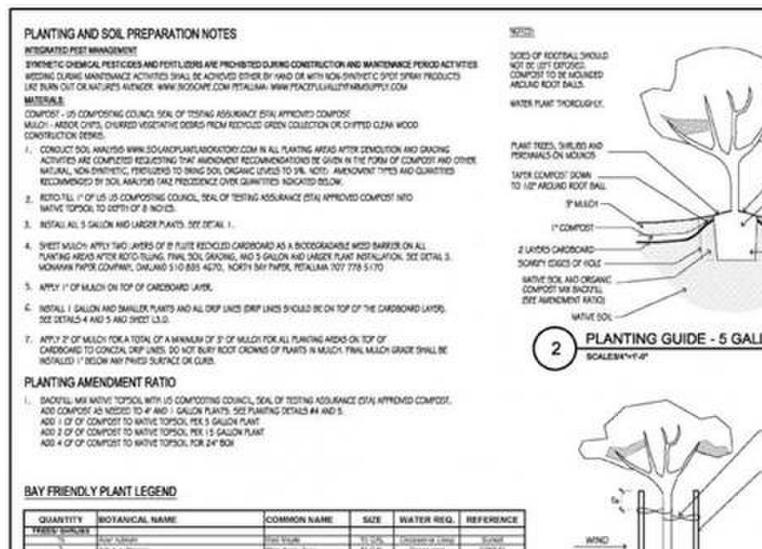
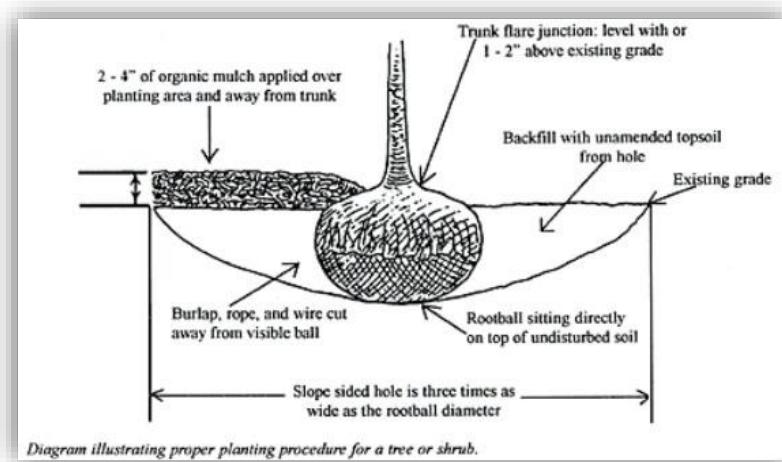
The **TRP** shall include planting schedules with botanical and common tree names, quantity, size, spacing, and any special planting notes. Trees used for credit on the **TRP** must be chosen from the County's approved tree list. At least 50% of replacement trees must be overstory trees. No more than 25% may be of any single species. No more than 25% may be evergreen species.

Tree relocation and credit for existing tree replacement units will be granted to trees relocated on site. Tree relocation is subject to approval of the **CA**. Existing trees $\geq 2"$ **DBH** and $\leq 7.9"$ may be used for credit on the tree replacement plan.

Unless otherwise approved by the **CA**, trees selected for replanting must meet the minimum standards as provided in the American Standard for Nursery Stock (ANSI Z60.1) and must be on the County's tree species selection list. Trees selected must be free of injury, pests, disease, nutritional disorders or root defects, and must be in good vigor to assure a reasonable expectation of survival. Standards for transplanting shall be in compliance with the International Society of Arboriculture (**ISA**) publication **Tree and Shrub Planting Manual** or a similar publication.

Replanted trees should be ecologically compatible with the site and neighboring area. When practical, replanted trees shall be of the same or similar species as those removed. Trees shall be planted in manner that provides adequate space for nourishment, light, and maturation.

Planting and staking details, as well as other applicable drawings, shall be specified in the **TRP**.



Trees which are used to meet the density requirements shall be maintained for two (2) growing seasons after the date of final inspection. The property owner shall maintain the required tree density. The permit applicant or builder is responsible for identifying newly planted trees to the homeowner and to inform the homeowner as to their proper maintenance.

BUFFERS

- Transitional buffer zones, stream buffers, and state buffer zones shall be clearly demarcated on the **TS** and **TPP** and protected prior to, and during, construction. The method of demarcation and protection utilized shall be in accordance with BMPs or as required by the **CA**.
- ***Land use transition buffers*** shall be provided between dissimilar districts or uses in accordance with the provisions of the zoning ordinance or as a condition of zoning, special land use permit or variance approval.
- Buffer planting shall meet the minimum width requirements contained in the **DeKalb County Code of Ordinances**, except as authorized to be reduced by a condition of zoning, special land use permit or variance approval.



- Supplemental plantings or replanting of vegetation or authorized non-vegetative screening devices shall be authorized to encroach into a buffer provided there is minimal disturbance of any existing vegetation.
- Dying, diseased or dead vegetation may be removed from a buffer provided minimal disturbance occurs. Removed vegetation shall be replaced where necessary to meet the screening requirements.

Nothing in this document shall allow for the removal of any tree or vegetation in a required stream buffer, transitional buffer zone or state buffer zone except buffer improvements as authorized by the director.

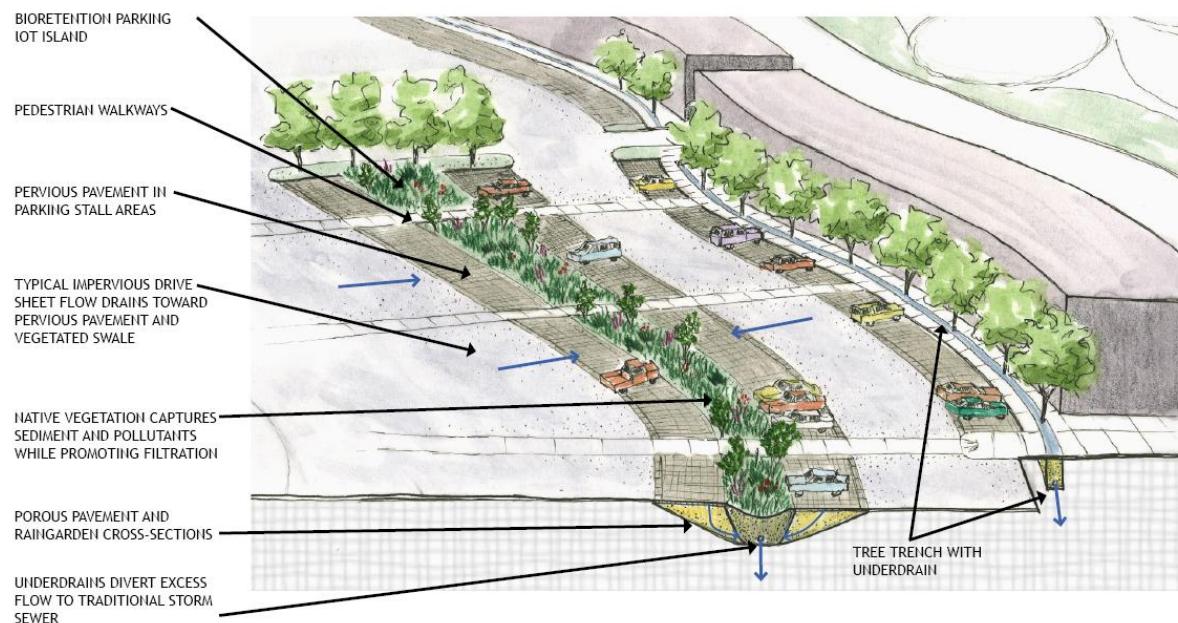
PARKING LOT LANDSCAPING

Off-street parking with more than twenty (20) off-street parking spaces on any single lot shall adhere to landscaping and plantings as provided in [Chapter 27](#) of the DeKalb County Code of Ordinances.

Variances to reduce required parking spaces may be granted by the zoning board of appeals when necessary to preserve a significant tree(s) that otherwise would be lost if the parking requirements were strictly applied. Such variance may only be granted if the **CA** certifies to the zoning board of appeals that such tree(s) will be lost either by necessary removal for construction of the parking lot or as a consequence of construction having an adverse impact on the survivability of the tree by virtue of damage to the root system of the tree(s).

Any variance granted shall include a condition that should the subject tree(s) die as a direct or indirect consequence of construction, the tree or trees shall be replaced at the property owner's or applicant's expense, in accordance with a tree replacement plan approved by the **CA**.

The maximum variance allowed shall be four (4) parking spaces, or ten (10) percent of the total number of parking spaces required by the zoning ordinance, whichever is greater.



WETLANDS AND FLOODPLAINS

Removal of trees from the floodplain is not permitted. Trees shall not be cut or removed from the floodplain, except as follows:

- Those trees found to be diseased, or insect infested by the DeKalb County Extension Service, the Georgia Forestry Commission, a certified arborist, or a certified forester.
- As necessary for construction, repair or maintenance of public roads, utilities or stormwater management facilities.
- As part of an approved wetland mitigation plan.



Trees in the one-hundred-year floodplain or required stream buffer may not be cut nor shall they be counted, except as otherwise provided for tree preservation and replacement requirements, for C-1, C-2, M, and M-2 zoned property, to accomplish requirements of the tree protection ordinance.

MAINTENANCE

Trees which are used to meet the density requirements for this [section 14-39](#), except on single family residential lots, shall be maintained for two (2) growing seasons after the date of final inspection. The property owner shall maintain required tree density. The applicant or builder will be responsible for identifying newly planted trees to the homeowner and to inform the homeowner as to their proper maintenance.

ALTERNATIVE COMPLIANCE

The CA must review and approve all requests for alternative compliance. In no instance shall one hundred (100%) percent of the required site density be met through alternative compliance. Where the CA has determined that special constraints of a site result in an inability to provide the required tree density, the number of trees will be determined by the CA based on site review. Site review shall require the developer to re-landscape each parcel using a tree density calculated as the maximum number of trees that can be sustained on the parcel less the impervious area of that parcel. The balance of trees shall be provided in common areas. If common areas are not sufficient, any remaining balance of trees may be provided for plantings on public grounds. Tree bank arrangements can be made through the director. The minimum size of trees replanted through the tree bank shall be two (2") caliper inches and shall be planted in accordance with the County's tree species list and in accordance with the tree replacement standards requirements.

Common area planting.

If trees are to be planted at another location, the following note must appear on the approved tree protection plan:

"A tree protection plan addendum for this project shall be submitted to the county arborist at least thirty (30) days prior to requesting a final inspection. This plan shall include the species, size and location of trees to be planted off-site to meet the tree density deficit shown. Issuance of a certificate of occupancy is subject to approval of this plan, as well as verification of the installation of the trees."

Tree banking.

If trees cannot be planted on site and there is insufficient common area for replanting, the balance of trees will be accepted by the director for tree banking within unincorporated DeKalb County.

Participants in the tree banking program, administered by the director, includes the signing of an off-site reforestation agreement. **A monetary contribution of \$100/inch is acceptable to satisfy off-site reforestation requirements.**

TREE HARVESTING

Tree harvesting and forestry operations shall be in accordance with the best management practices as established by the Georgia Forestry Commission.



VIOLATION AND PENALTIES

After having been first issued a warning, any person, firm or corporation in violation shall be deemed guilty of an offense and upon conviction in recorder's court shall be punished per [section 1-10](#) of the Code of DeKalb County. Each tree removed or killed in violation of this [section 14-39](#) shall be considered a separate offense. The owner of any buildings or premises or parts thereof, where anything in violation of this section exists, and any architect, builder, contractor or any other agent of the owner, or any tenant, who commits or assists in the commission of any violation, shall be guilty of a separate offense.

Any trees eight (8") inches (DBH) and over, significant trees, which have been removed in violation of this section shall be replaced by the violator with four-inch (4") caliper replacement trees equal to the density unit value of the trees removed. Any specimen tree removed from a parcel shall be replaced with four-inch (4") caliper trees one and five-tenths (1.5) times the equivalent inches (DBH) of replacement trees or existing trees in excess of the requirements of the tree preservation and replacement requirements, using species with potentials for comparable size and quality at maturity.

Administrative variances and Special exception:

Front, side and rear yard setbacks and parking requirements may be reduced by an amount not to exceed fifty (50) percent where it is determined by the CA to be necessary in order to preserve existing specimen or significant trees. Appropriate conditions shall be imposed to ensure the continued health of these trees including mandatory replacement. Variances shall be considered and decided consistent with the procedures and criteria contained in [Chapter 27](#) of the DeKalb County Code of Ordinances.

The zoning board of appeals is authorized to consider requests for special exception for the removal of an unauthorized specimen tree. All such requests shall be filed, notice given, and all procedures shall be as is required in the zoning ordinance. No such special exception for the unauthorized removal of a specimen tree shall be granted by the zoning board of appeals unless the applicant has demonstrated and the board has found that the property is not capable of earning a reasonable economic return absent the grant of the special exception. In making this determination the board shall consider the following factors:

- Value of the trees in question, considering their age, size, health.
- The current level of economic return on the property.
- The marketability of the property; and the unfeasibility of alternate design or uses. Appeals from final decisions of the board shall be as provided for in [Chapter 27](#) of the DeKalb County Code of Ordinances.

CHECK LIST ITEMS AND PROCEDURES

Tree Preservation Plan

- Show limits of land disturbance clearing, grading, staging and construction material storage areas.
- Show location of **ALL SAVED TREES** within tree protection measures, procedures and schedules for implementation, installation and maintenance.
- Apply mulch 2"- 4" on tree CRZ.
- NO TREES TO BE REMOVED DURING DEMOLITION**
- Tree save to be chain link fence with tree protection signage.
- Show tree protection on **ALL** phases of E&SC plan.
- Provide calculations for preservation either: 120"/ac or 25% existing trees, whichever is less.
- When using 25% calculation; all significant trees must be surveyed, and unit density must be met as well.
 - 15 density units per acre for single family detached housing developments
 - 30 density units for all other developments
- Trees in the 75'/ 25' stream buffer can't count toward required preservation.
- Trees in flood plain (IRF) cannot count for preservation.
- Show **ALL** specimen size trees and their critical root zones (CRZs), saved or removed.
- Remove trees that have sustained CRZ loss in excess of 30% and/or more than 40% of the root zone buried under 12 inches or more of new fill soil.
- Provide certified arborist assessment of all overstory trees 30" and larger to be removed.
- Provide certified arborist assessment of all understory trees 10" and larger to be removed.
- Tree protection fence must be installed 1' (one foot) from tree trunk for every 1" (one inch) diameter at breast height (DBH) **PLUS** six (6') feet.
- Provide tree survey identifying **ALL** trees 8"DBH (diameter breast high) and larger by size, species and location.
- Trees with impacted CRZ can't use DBH in preservation calculations.
- Provide detail of tree protection fencing.
- Show easements, utility lines (existing and proposed), including electrical lines.
- Provide unit density calculations for replacement trees.
- Show proposed grading lines and building envelope.
- Reforestation agreement must be signed and submitted (if required)
- Common area planting note on plan:**
 - A tree protection plan addendum for this project shall be submitted to the county arborist at least thirty (30) days prior to requesting a final inspection. This plan shall include species, size and location of trees to be planted off-site to meet the density deficit shown. Issuance of a certificate of occupancy is subject to approval of this plan, as well as verifications the instillation of the trees.

Specimen Trees

- ❑ Understory trees 10" DBH & greater, in good condition (dogwood, redbud, sourwood and similar species)
- ❑ Hardwood trees 30" DBH & greater, in good condition (oaks, hickory's, yellow poplars and similar species)
- ❑ Softwood trees 30" DBH & greater, in good condition (pines, evergreen and similar species)
- ❑ Show size, species, and location of all specimen trees and their CRZ.
- ❑ Show recompense for specimens removed at 1.5" x DBH; recompense must be in excess or the requirements for preservation.
- ❑ County Arborist or Board of Appeals approval required for removal of specimen trees.
 - ✓ PROVIDE CALCULATIONS FOR PRESERVATION (SIGNIFICANT TREE) REQUIREMENT.
 - ✓ PROVIDE CALCULATIONS FOR UNIT DENSITY AND REPLACEMENT REQUIREMENTS.
 - ✓ PROVIDE PRESERVATION CALCULATION: EITHER 120" /ACRE OF SIGNIFICANT TREES SAVED, OR 25% OF SUCH TREES SAVED.
 - ✓ PROVIDE 15 DENSITY UNITS PER ACRE CALCULATION IF THE 25% OPTION ON PRESERVATION IS CHOSEN, OR IF THERE ARE NO SIGNIFICANT TREES ON SITE.
 - ✓ PROVIDE REQUIRED FRONT YARD TREES PER ZONING DISTRICT.
 - ✓ SHOW TREE PROTECTION FENCE LOCATION(S).
 - ✓ SHOW SIZE, SPECIES AND LOCATION OF ALL EXISTING TREES TO BE SAVED, AND REQUIRED REPLACEMENT TREES.
 - ✓ SHOW SIZE, SPECIES AND LOCATION OF ALL (SAVED OR REMOVED) SPECIMEN TREES. SHOW RECOMPENSE FOR SPECIMENS REMOVED.
 - ✓ SHOW THAT REPLACEMENT TREES ARE AT LEAST 50% OVERSTORY SPECIES; NO MORE THAN 25% OF ANY SINGLE SPECIES; AND NO MORE THAN 25% EVERGREEN SPECIES.
 - ✓ SHOW ALL PROPOSED LAND DISTURBING ACTIVITIES.
 - ✓ SHOW LOCATION OF PROPOSED UTILITIES IN RELATIONSHIP TO TREE SAVE AREAS, IF APPLICABLE.
 - ✓ PROVIDE EROSION CONTROL MEASURES AS NEEDED TO PROTECT SAVED TREES, ADJACENT PROPERTY (INCLUDING COUNTY R/W), DRAINAGE STRUCTURES, STATE WATERS AND FLOODPLAINS FROM SEDIMENTATION.
 - ✓ SHOW LOCATIONS OF ALL REQUIRED BUFFERS, INTERMEDIATE REGIONAL FLOODPLAINS AND UTILITY EASEMENTS, IF APPLICABLE.
 - ✓ SHOW A DOUBLE ROW OF TYPE "C" SILT FENCE AT ALL STREAM BUFFERS AND/OR FLOODPLAINS.
 - ✓ PROVIDE DESIGN PROFESSIONAL SEAL.
 - ✓ OBTAIN BOARD OF APPEALS APPROVAL TO REMOVE MORE THAN 50% OF SPECIMEN TREES.

FOR BUILDING LOTS WITHIN PLATTED SUBDIVISIONS WITH OVERALL TREE PROTECTION AREAS:

- ✓ IF ANY PART OF THE OVERALL TREE PROTECTION AREA IS WITHIN THE SUBJECT LOT, PROVIDE A TREE PLAN.
- ✓ IF NO PART OF THE OVERALL TREE PROTECTION AREA IS WITHIN THE SUBJECT LOT, PROVIDE A COMPLETED TREE PLAN EXEMPTION FORM. (SEE THE INTAKE COUNTER FOR FORMS).
- ✓ PROVIDE OFF-SITE PLANTING CALCULATION.
- ✓ PROVIDE A TREE SURVEY SHOWING ALL SPECIMEN TREES (DBH $\geq 30"$), ALL TREES DBH $\geq 18"$ AND CRITICAL ROOT ZONES (CRZ).
- ✓ SHOW SIZE, SPECIES AND LOCATION OF ALL EXISTING TREES TO BE SAVED, AND ALL REPLACEMENT TREES THAT ARE NEEDED TO MEET REQUIREMENTS.
- ✓ SHOW THAT REPLACEMENT TREES ARE AT LEAST 50% OVERSTORY SPECIES, NO MORE THAN 25 % EVERGREEN SPECIES, AND NO MORE THAN 25% OF ANY SINGLE SPECIES.
- ✓ PROJECT MUST COMPLY WITH PARKING LOT LANDSCAPE REQUIREMENTS (SECT. 27-753).
- ✓ SHOW RECOMPENSE FOR SPECIMEN TREES REMOVED, IF APPLICABLE.
- ✓ BOARD OF APPEALS APPROVAL REQUIRED FOR REMOVAL OF SPECIMEN TREE(S).
- ✓ SHOW ALL UTILITIES, EASEMENTS, BUFFERS, BUILDING SETBACKS, RIGHTS-OF-WAY, AND DESIGNATED TREE SAVE AREAS.
- ✓ SHOW LIMITS OF LAND DISTURBANCE, CLEARING, GRADING, STAGING AND CONSTRUCTION MATERIAL STORAGE AREAS.
- ✓ SHOW LOCATION OF TREE PROTECTION MEASURES, AND PROCEDURES FOR IMPLEMENTATION, INSTALLATION AND MAINTENANCE.
- ✓ PROVIDE DETAIL OF TREE PROTECTION FENCING.
- ✓ PROVIDE DETENTION POND LANDSCAPING. {SECT. 14-40(b)(10)}

Definitions.

Caliper means the diameter of a tree trunk, applied only to new or replacement plantings, which is taken six (6) inches above the ground for up to and including four-inch caliper size, and twelve (12) inches above the ground for larger sizes.

Conservation easement means a restriction or limitation on the use of real property which is expressly recited in any deed or other instrument of grant or conveyance executed by or on behalf of the owner of the land described therein and whose purpose is to preserve land or water areas predominantly in their natural scenic landscape or open condition or in an agricultural farming, forest or open space use and includes conservation easements authorized by state law.

County arborist means the county official having the primary responsibilities of administration and enforcement of the tree protection ordinance.

DBH (Diameter at breast height) means the diameter of a tree trunk measured in inches at a height of four and one-half (4½) feet above the ground. If a tree splits into multiple trunks below four and one-half (4½) feet, then the trunk is measured at its most narrow point beneath the split.

Density factor means a unit of measurement used to prescribe the calculated required tree coverage on a site.

Exceptional and historical trees means those trees or stands of trees which are exceptional representatives of their species in terms of size, age or unusual botanical quality, or are associated with historically notable events.

Residential shall have the same meaning as given in Chapter 27 except that it shall not include apartments.

Significant tree means any existing, healthy, living tree eight (8) inches DBH or greater in size.

Site plan means that plan required to acquire a development, construction or building permit which shows the means by which the applicant will conform to applicable provisions of this chapter and other applicable ordinances.

Specimen tree means any tree that has been determined to meet the criteria within section 14-39 for the determination of specimen trees.

Tree means any living, self-supporting, woody perennial plant which has a trunk caliper of two (2) inches or more measured at a point six (6) inches above the ground and which normally attains a height of at least ten (10) feet at maturity usually with one (1) main stem or trunk and many branches.

Tree harvesting means the felling, loading, and transporting of timber products done pursuant to a special exception issued by the zoning board of appeals.

Tree save area means the boundaries of the area or areas surrounding trees wherein it is essential that they remain undisturbed in order to prevent damage and loss of trees that are to be retained on site during the development and building process.

Tree replacement means the replacement of trees and landscape plant materials into the minimum required landscape areas, as determined by the zoning regulations or the tree protection ordinance.

Vegetation means all plant growth, especially trees, shrubs, vines, ferns, mosses and grasses.

CHART 1.

Conversion from Diameter to Density Factor Units for Existing Deciduous Trees To Remain On Site

DBH	Units	DBH	Units	DBH	Units
2 to 3	.8	25	6.8	38	15.8
4 to 6	1.6	26	7.4	39	16.6
7 to 9	2.4	27	8.0	40	17.4
10 to 12	3.2	28	8.6	41	18.4
13 to 15	4.0	29	9.2	42	19.2
16 to 18	4.8	30	9.8	43	20.2
19 to 21	5.4	31	10.4	44	21.2
22 to 24	6.0	32	11.2	45	22.0
		33	11.8	46	23.0
		34	12.6	47	24.0
		35	13.4	48	25.2
		36	14.2	49	26.2
		37	15.0	50	27.2

CHART 2.

Conversion from Diameter to Density Factor Units For Evergreens And Conifers

DBH	
2 to 9	.2 less unit than deciduous trees
10 to 15	.1 less unit than deciduous trees
All others	Same as deciduous trees

CHART 3.

Conversion from Caliper Diameter to Density Factor Units For Deciduous Replacement Trees.

Caliper inches	Units
0.0 to 0.9	Not allowed
1.0 to 1.9 no replants under 2 caliper inches	Not allowed
2.0 to 2.9	.4
3.0 to 3.9	.5
4.0 to 4.9	.7
5.0 to 5.9	.8
6.0 to 6.9	1.0
7.0 to 7.9	1.1
8.0 to 8.9	1.2
9.0 to 9.9	1.3
10.0 to 10.9	1.5
11.0 to 11.9	1.6
12 inches or greater	2.0

Container-grown pine trees are given replacement value as follows:

Size	Units
7-gallon	.05