

TREE PRESERVATION REQUIREMENTS

*AS APPLICABLE TO NEW INFILL HOUSE CONSTRUCTION
OR PROJECTS THAT INCREASE IMPERVIOUS AREA BY 50% OR GREATER*

TREE PROTECTION PLAN (TPP) REQUIREMENTS

(For more detail please see Zoning Code Section 405.336 or call 314-587-2820)

- A TPP is **required** as part of the initial permit process, be it demolition, architectural review or building permit.

The following items shall be required on a TPP

- a. Project title listing project name, owner name, and name of firm or individual preparing the plan.
- b. North arrow, graphic and written scale.
- c. Scaled base plan using current information from the site development plan depicting existing and proposed grades, location of all improvements, existing and proposed utilities and sewers.
- d. Graphic depiction of all existing trees to remain and to be removed including location, types and size.
- e. Graphic depiction of the accurate drip line canopy showing the extent of the Critical Root Zones (CRZ).
- f. Graphic depiction of the proposed Tree Protection Zones (TPZ) and location of tree protection fencing.
- g. Tree protection and planting notes and details applicable to the project, pursuant to *Section 405.336.G: Tree Protection Measures*.
- h. A tree chart shall be submitted with the TPP. The tree chart shall list the size (DBH), cross-sectional area (CSA), species, condition and preservation/removal status of all existing trees.
- i. Certification (signed and sealed) by a Missouri licensed landscape architect or ISA certified arborist.

TREE REMOVAL REQUIREMENTS

- The removal of any hazardous, dead or diseased trees on private property, as determined by a licensed landscape architect, certified arborist, or other evidence deemed credible by the City, as necessary to remedy an immediate threat to person or property is not subject to the requirements of this Section.
- Trees removed within one (1) year preceding the submittal of a development application to the City must be documented by a dated conditions report prepared by a certified arborist or forester, dated conditions photographs and a copy of the work order with date of service. **Any tree removed within one (1) year prior to the submittal of a development or building permit application that is not documented and approved by the City will be considered in good condition by default.**
- With the exception of any property for which a tree preservation plan has been approved in accordance with this Section and a building permit has been issued, it shall be **prohibited** for any person to remove any trees six (6) inches in diameter or greater for the purposes of preparing a

lot for development that is subject to a demolition permit, grading permit, building permit or architectural review.

TREE PRESERVATION REQUIREMENTS

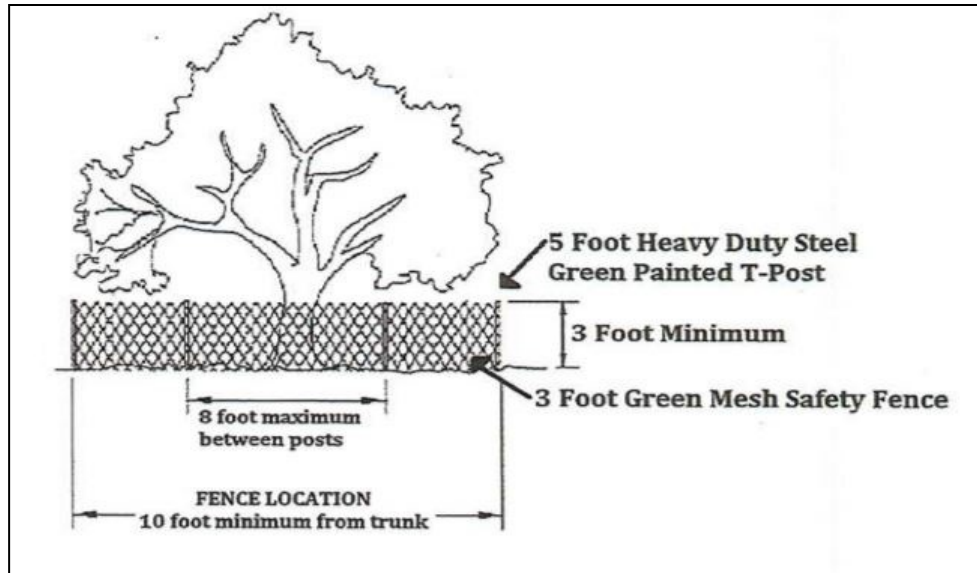
- A minimum of 50% of the calculated total of (CSA) of all healthy trees, six (6) inches in diameter or greater, shall be preserved.
- CSA means cross-sectional area which is the area of the tree derived by squaring the radius of the tree and multiplying by 3.14.
- Trees in poor condition or that are dead shall not be counted toward the calculated total of CSA.
- Failure to preserve a minimum of 50% (CSA) of healthy trees shall be mitigated in the following ways, either individually or in combination:
 - Replacement trees shall have a total cross sectional area equal to at least 25% of the cross sectional area of the trees to be removed.
 - Replacement trees shall be in three (3) inch diameter increments.
 - Trees to be planted to meet requirements for new landscaping and bufferyards shall count as replacement trees.
 - If there is not sufficient room on the site, a contribution to the City's Tree Fund shall be made in an amount equal to \$30 per cross sectional inch of the required replacement trees (see chart)

TREE REPLACEMENT CHART				
Tree Size (DIA)	CSA (SQIN)	Replacement Area Required - 25% (SQIN)	Replacement in Equivalent Trees	Replacement Fund Contribution @ \$30/(SQIN)
6"	28.3	7.1	1 - 3"	\$213
8"	50.2	12.6	2 - 3"	\$378
10"	78.5	19.6	3 - 3"	\$588
12"	113.0	28.2	4 - 3"	\$846
15"	176.0	44.0	7 - 3"	\$1,320
18"	254.0	63.5	9 - 3"	\$1,905
20"	314.0	78.5	11 - 3"	\$2,355
24"	452.0	113.0	16 - 3"	\$3,390
30"	706.5	176.6	24 - 3"	\$5,298
36"	1017.0	254.3	36 - 3"	\$7,628
40"	1256.0	314.0	44 - 3"	\$9,420
42"	1384.7	346.2	49 - 3"	\$10,386
48"	1808.6	452.1	64 - 3"	\$13,563

TREE PROTECTION MEASURES

- All tree protection measures shall be installed prior to the commencement of demolition, excavation, construction or site work.
- A **pre-construction meeting** shall be held on-site to review the installed protection measures with operators, construction supervisors, contractor's representatives, and the City representative (if required by the City).

- Development impact shall not enter the Critical Root Zone (CRZ) of trees to be preserved. If this is not avoidable, the tree may have to be removed and tree restoration requirements will be applied.
- Tree protection fencing shall be installed along the edge of the Tree Protection Zone (TPZ) of each preserved and impacted tree within the disturbed areas. Trees that share a TPZ can be fenced together in a cluster. Tree protection fencing shall be installed along hardscape edges that will remain intact. No more than twenty-five percent (25%) of the TPZ can be impacted.
- The contractor on the site shall stake clearing limits in order to facilitate location for trenching and fencing installation for tree protection.
- The sequence of tree preservation measures, if required, shall be as follows: tree protection fencing installation to establish the TPZ; root pruning trenching; tree pruning and chemical treatment; and aeration systems.
- Tree protection fencing shall be maintained and repaired by the contractor for the duration of construction and approved by the City. No alteration shall occur without prior approval by the City.
- Access to the TPZ by construction equipment, materials, or individuals that may cause harm to protected trees will not be allowed. Only limited access, if necessary, shall be permitted with the prior approval of the City.
- Removal of trees, shrubs, or undergrowth from protected areas shall only be performed when necessary and must be done with hand/power tools only, no heavy equipment/machinery.
- Utility locations should be planned for areas outside of the (TPZ). Utilities that must cross through the TPZ of trees due to site constraints and utility design requirements must be approved by the City and will be directional bored. No open trenches are allowed. Tree protection fencing must be maintained on both sides of the boring alignment.
- Attachment of any construction signs, fencing, etc. to any tree to be saved is strictly prohibited. Construction fence footings or support locations are required to be shown on the plan. Position post locations to span the TPZ. Upon completion of construction, all temporary barriers, fencing, and debris shall be removed from the site by the contractor.
- **Tree protection fencing shall consist of a green mesh safety fence that is a minimum of three (3) feet in height, secured with heavy duty steel t-posts set a maximum of eight (8) feet apart.**
- A **moisture protected 8.5"x11" sign stating, "Warning -Tree Protection Zone"** shall be required to be placed on the tree protection fencing at a minimum of twenty (20) foot intervals, with a minimum of one sign on each elevation of fence.



WARNING
TREE PROTECTION ZONE

TREE RESTORATION & ESCROW REQUIREMENT

- A tree restoration escrow deposit shall be submitted to the City prior to the issuance of any permit related to the development of a site.
- The dollar amount of the escrow deposit required shall be based on the total dollar value of all trees to be preserved. The basis for the dollar value of a tree shall be derived from the most recent edition of the *Guide for Tree Appraisal as produced by the Council of Tree and Landscape Appraisers*.
- Any trees that are intentionally or unintentionally removed or destroyed in violation of an approved TPP shall be replanted and restored within six (6) months.
- If it is determined by the City Administrator or their designee, that the protected trees have not been replanted in a reasonable time, the City may cause the work to be performed and deduct from the escrow deposit accordingly.
- Prior to the full release of the escrow a report shall be submitted in writing, from an International Society of Arboriculture Certified Arborist or a Landscape Architect approved by the City, verifying that the trees to be preserved are still alive.
- The escrow deposit shall be returned upon approval, by the City Administrator or their designee, of the submitted report and verification of the completion of any required tree restoration.