

City of Charlotte, NC Tree Ordinance Guidelines

Soil Specifications: [City Code Section 21-96](#)

Amended Soil (AS):

The AS requirement may be met in one of the following ways:

1. Preparing the existing soil for planting by tilling to a depth of 18", and adding some new planting mix and/or organic matter. This option may also require the removal of some existing soil along with other mitigation work and soil amendments to improve soil structure.
2. Removing all existing soil from a tree ordinance protected/required planting area and replacing it with new planting mix and other soil amendments.
3. AS requirements may be waived by Urban Forestry Specialists, Municipal Arborists Specialists, the City Arborist, the Urban Forestry Supervisor and other designees of the City Engineer.

Determination of AS requirements will be at the discretion of Urban Forestry Staff and/or City Arborist Staff. Staff will inspect soil at the time of planting to determine required soil amendments.

Planting mix used to meet AS requirements shall have uniform composition throughout, with a mixture of subsoil. It shall be free of stones, lumps, live plants and their roots, sticks, and other extraneous matter. It shall contain no man-made materials unless otherwise specified. Planting mix shall not be used while in a frozen or muddy condition.

Unless otherwise specified in the contract documents, new/added planting mix shall contain the following specified percentages of constituents:

CLAY	Minimum 10%/ Maximum 40%
SAND	Minimum 20%/ Maximum 50%
SILT	Minimum 20%/ Maximum 50%
ORGANIC MATTER	Minimum 5%/ Maximum 10%

Organic Matter is defined as compost/humus such as sawdust or leaf mold that has completed the decomposition process. Percentage of organic matter shall be determined by loss on ignition of moisture free samples dried at 65 degrees.

AS shall have a have an acidity range of pH 5.5 to 7.0.

AS shall have a Cation Exchange Capacity (CEC) from 5 to 25 cmol +/-kg(meq/100g)

AS shall have normal contents of nitrogen, phosphorus, potassium, calcium, magnesium, sulfur and proper micronutrient levels. Nutrient levels must satisfy growing needs (as recommended by lab report) of the existing or planned plant material.

Lab testing may be required to verify the quality of existing soil, AS and other soil amendments.