

Haddonfield Shade Tree Commission Policy for Construction Fencing to Protect Borough-owned Trees

Borough trees whose Critical Root Zone (CRZ) falls within the construction zone must be protected during the construction period, unless specific approval is obtained from the Haddonfield Shade Tree Commission (STC) to remove that tree. In most cases, Borough trees whose CRZ falls outside the construction zone will not need protection during the construction period.

The Haddonfield Department of Public Works (DPW) maintains an inventory of Borough trees, which is available on the STC webpage sorted by street name and building number. The inventory shows the tree locations on the adjoining Borough right-of-way, e.g. street in front or, in the case of corner properties, the side street, the tree name and the approximate tree diameter. If there is a question, the DPW, in conjunction with the STC, can verify whether a specific tree is a Borough tree.

The Borough's Construction Office works with the STC to implement and enforce the construction fencing policy to protect Borough-owned Trees. If there is a question regarding the location and size of the construction fence, please contact the Borough's Construction Office, Room 104, Borough Hall.

Exceptions due to hardship will be considered by the STC through written application to the STC, Room 101, Borough Hall. Non-compliance with this policy without specific exception being granted in writing by the STC will be considered as causing damage to the Borough tree(s), a violation of Section 56 of Borough code and subject to penalties and assessments under the code.

Statement of Policy:

In order to protect Borough-owned trees during the construction period, the STC requires that the tree(s)' CRZ be protected by a fence, as described below:

- The CRZ is the area of soil around a tree trunk where roots are located that provide stability and uptake of water and minerals required for tree survival. The CRZ is determined by calculating a radius based on the tree's diameter at breast height (DBH), which is taken by measuring the tree's trunk diameter at a point 4.5 feet above the ground. For each inch of DBH, allow for one foot of CRZ radius measured from the outside of the trunk, e.g. a 12 inch DBH tree would have a CRZ radius of 12 feet.
- The fence should be placed around the CRZ, but no closer than six feet measured from the outside bark of the trunk. For example, a tree with a 6 inch DBH would have a CRZ radius of 6 feet, as would a tree with a 4 inch DBH. The following table illustrates the relationship between the tree DBH and the CRZ radius. Note that CRZ radius for the larger trees are based on a lesser ratio than 1 foot for every inch DBH.

Tree DBH (in.)	Minimum CRZ radius	Maximum CRZ radius	CRZ multiplication factor, to apply in calculating CRZ
6 in. or less	6 ft.	6 ft.	Minimum CRZ radius
6 - 10 in.	From 6 ft.	To 10 ft.	1.0, if greater than 6" DBH
10 - 15 in.	From 10 ft.	To 15 ft.	1.0, if greater than 10" DBH
15 - 20 in.	From 15 ft.	To 18 ft.	0.9, if greater than 15" DBH
20 - 25 in.	From 18 ft.	To 22 ft.	0.88, if greater than 20" DBH
25 - 30 in.	From 22 ft.	To 24 ft.	0.8, if greater than 25" DBH
30 - 36 in.	From 24 ft.	To 28 ft.	0.78, if greater than 30" DBH
36 in. or more	28 ft.	28 ft.	Maximum CRZ radius

- The fence must be at least four feet in height, such as a wooden snow fence or a temporary chain link fence. A temporary, light-weight fence such as a staked orange construction fence or a staked silt fence is not acceptable. The fence must be labeled and posted “TREE PROTECTION ZONE – KEEP OUT”.
- The location of this fence must be shown on the site plan. This fence must be placed before the start of construction to create the Preservation Area and can not be removed until the construction is complete. There is to be no construction, grading, trenching, storing or stockpiling of materials, dumping, vehicular traffic or parking of any kind within the fenced Preservation Area.
- If an existing cement or asphalt driveway passes through the CRZ, this driveway may be exempted from the Preservation Area and the fence constructed so as to protect all areas of the CRZ except for the driveway. Similarly, if an existing sidewalk passes through the CRZ, the fence should be erected in such a manner as to allow public access on the sidewalk while protecting all other areas of the CRZ.

Alternative Procedure:

Certain properties within Haddonfield are narrow, e.g. built to the side setbacks, and have very narrow frontage on Borough streets. At the same time, there may be Borough trees planted in the park strip in front of this property whereby the CRZ of these trees stretch along most, if not all, of the property frontage.

The following alternative procedure is intended to address this specific situation wherein: (1) the existing or planned driveway does not allow adequate access for construction equipment and (2) the CRZ radius extends along all or virtually all of the streetside property line. This alternative procedure is not intended merely to allow more convenient and additional access for contractors at the expense of the Borough trees. Under no conditions do these procedures permit construction materials or equipment to be stored on the CRZ. The tree trunk still must be protected from direct damage such as tears and gashes in the bark.

If it is essential that construction equipment be driven over the park strip across the CRZ of Borough trees, one of the following actions must be taken to disperse the vehicular load and protect the tree roots, minimizing soil compaction and mechanical root damage. The options for action include:

- (1) Applying 8 to 12 inches of wood chip mulch to the area;
- (2) Laying ¾ inch thick plywood over a 6 inch thick or more layer of wood chip mulch;
- (3) Applying 6 inches of gravel over a taut, staked geotextile fabric; or
- (4) Placing commercial logging or road mats or steel plate on top of a 6 inch thick or more wood chip mulch layer.

Under no conditions can stone or gravel be laid directly on the soil within the CRZ. Stone, geotextile and mulch must be removed from the CRZ at the close of the construction period.

For more information:

This policy is based on ANSI A300, Part 5, Management of Trees and Shrubs during Site Development and Construction, and the companion publication, “Best Management Practices: Managing Trees During Construction” by K. Fite and E.T. Smiley. Other sources of background information include: “Avoiding Tree Damage During Construction” by the International Society of Arboriculture (available at the Borough Construction Office) and “The Tree Owner’s Manual for Northeastern and Midwestern United States” by the USDA. Please contact the STC if you seek further information regarding this policy.