

City of North Miami Beach Tree Preservation and Protection Standards

1. Tree Protection Requirements during Construction.

General. During site development and construction on public or private property all reasonable steps shall be taken to prevent the destruction or damaging of trees for which no tree permit has been issued. Trees destroyed or receiving major damage must be replaced by trees of equal environmental value, as specified by the Planning and Zoning Department. Tree protection zones must be established for all trees that remain in place on site and for any trees relocated within or adjacent to the site. When proposed development activities may damage the root systems, trunks or canopies of trees to be retained or relocated on site, alternatives to the proposed activities, or effective protective measures, shall be identified and used.

Permit/Construction Drawings.

All permit and construction drawings of the site shall show the tree protection zones, as prescribed by the Planning and Zoning Department as shaded areas that are accurately drawn to scale and labeled as such on the drawings. The tree protection zones shall be shown on all drawings that include any underground utility installations, including but not limited to, irrigation, plumbing, electrical, telecommunication or streetlight lines.

The tree protection zones shall be shown on all drawings that include structural installations that will require excavation(s), and for above-ground installations that may include, but are not limited to; walkways, street lights, overhead wires or other types of infrastructure.

1. Tree Protection Specifications.

As a condition of approval of the site plan for any project, the following tree protection, root pruning, tree relocation, tree pruning, tree remediation and replacement specifications shall be followed. Additional protective measures may be required if so determined by the City Planning and Zoning Department. The City Planning and Zoning Department or designated staff shall have the authority to enter the subject property to ensure compliance with required tree protection measures. **The most recently published edition of the ANSI A300 (Part 5 Management of Trees and Shrubs during Site Planning, Site Development, and Construction) shall be followed.**

- a. Protective Barriers.
 - i) Placement. Protective barriers shall be placed at the dripline of each tree, cluster of trees, or preservation area, and in no case less than ten (10) feet from the trunk of any protected tree, tree cluster or preservation area unless the City Planning and Zoning Department and or designated staff determines that a lesser or greater distance is required. In situations where trees have been transplanted to the project site, the protective fencing shall be placed

no closer to the tree than a point one to two feet outside the root ball, or at the dripline, whichever is greater. The fenced tree protection zones shall be extended where necessary to protect tree canopies as well as roots. If trees are to be preserved in place and root pruning is required to accommodate new construction, the root pruning locations shall be identified and approved by the City Planning and Zoning Department and or Tree Preservation Program staff, and fencing shall be installed one (1) to two (2) feet beyond the edge of the root ball. The installation of the fencing shall be coordinated with any phased root pruning that must occur. Tree maintenance measures such as irrigation must be in place prior to any root pruning or transplanting.

ii) Timing and Duration. All protective barriers shall be installed prior to the start of any construction or site development, including tree removal, demolition or land-clearing activities, and shall remain in place throughout all phases of construction. The Planning and Zoning Department and or Tree Preservation Program staff shall be called to inspect the installed fence prior to commencement of any activity on the site. Protective barriers shall be maintained in place until development is completed, and shall not be removed until the Planning and Zoning Department and or Tree Preservation Program staff inspects the site and authorizes their removal. A review of the plans will be made at this point in order to ensure that all forthcoming activities will not violate the established tree protection zones.

i) Barrier Specifications. Sturdy temporary barriers shall be installed around all tree protection zones. Protective barriers shall be placed around each tree, cluster of trees, or the edge of the preservation area no less than six (6) feet (in radius) from the trunk of any protected tree, cluster of trees, or preservation area unless a lesser distance is specified by the Department. Protective barriers shall be a minimum of four (4) feet above ground level and shall be constructed of wood, plastic or metal, and shall remain in place until development is completed and the Department has authorized their removal. Protective barriers shall be in place prior to the start of any construction. Other types of barriers shall not be used unless authorized by the Planning and Zoning Department.

b. Activities Within Tree Protection Zones Enclosed By Protective Barriers.

- Understory plants within areas surrounded by protective barriers shall be protected.
- No oil, fill, equipment, building materials, building debris, or any other material shall be placed within the areas surrounded by protective barriers
- No disposal of any waste material such as paints, oils, solvents, asphalt, concrete, mortar, or any other material shall occur within the areas surrounded by protective barriers.
- Natural grade shall be maintained on areas surrounded by protective barriers. In the event that the natural grade of the site is changed as a result of site development such that the safety of the tree may be endangered, tree wells or retaining walls are required.

- Only hand digging and grading activities will be permitted within the tree protection zone. All surrounding areas must be graded to a point that meets the outside of the tree protection zone
 - Underground utility lines, including, but not limited to, irrigation, plumbing, electrical, or telecommunication lines, shall be placed outside the areas enclosed by protective barriers. If said placement is not possible, disturbance and root damage shall be minimized by using techniques such as tunneling, hand digging, excavation with an air spade, or the use of overhead utility lines.
 - No vehicles or equipment shall be permitted within areas surrounded by protective barriers
- c. Fences, walkways, and walls shall be constructed to avoid disturbance to any protected tree. Post holes and trenches located close to trees shall be dug by hand and adjusted as necessary, using techniques such as discontinuous footings, to avoid damage to major roots.
 - a. No attachments or wires other than those of a protective or non-damaging nature shall be attached to any trees during site development or construction.
 - b. Relocated trees shall be braced in such a fashion as to not scar, penetrate, perforate, or otherwise inflict damage to the tree

2. Root Pruning.

The cutting of roots with a diameter of two inches or larger is prohibited unless there is no feasible construction alternative, as determined by the City Planning and Zoning Department and Planning and Zoning Department. The City may require that construction activities, such as trench lines and walkway construction, be redirected away from trees.

Root pruning, when determined to be necessary, shall be done by an ISA Certified Arborist in accordance with the most recently published edition of the **ANSI A-300 (Part 5 Management of Trees and Shrubs During Site Planning, Site Development, and Construction)** and approved techniques as outlined herein:

- c. Before roots are cut, trees shall be evaluated by the City Planning and Zoning Department and or Tree Preservation Program staff to determine whether the root cutting will destabilize the tree or cause unacceptable damage to the tree.
- d. Unless unavoidable because of sidewalks, pavement, or other infrastructure, root cuts shall be made, at minimum, a distance from the trunk equivalent to three times the tree's trunk diameter at 4.5 feet above ground (DBH). Preferably cuts shall be made at a distance from the trunk equivalent to five times the tree's DBH or greater.

- d. Roots may not be torn off with power equipment, and cut roots shall not be left with ripped, ragged or shredded ends. Roots must be cleanly severed with sharp hand tools or power root saws.
- e. When tunneling or otherwise avoiding roots is not possible, the trench shall be carefully excavated by hand or machine and, when a root with a diameter of 2 inches or greater is encountered, a final clean cut shall be made with a saw. The cut shall be made flush with the side of the trench closest to the tree. The root pruning trench shall be backfilled with soil.
- f. When adjacent to new curbing, uncurbed paved areas, or areas of grade changes, roots shall be cut no more than 18 inches towards the tree from the back of the curb, the edge of the pavement, or the point of intersection of old and new grades, respectively. After root pruning, no excavation for the installation of forms or for any other reason may be performed any closer than six inches outside of the root pruning cut. The root pruning trench shall be backfilled with soil.

3. Tree Relocations

- g. For trees that will be relocated, irrigation must be present and applied effectively for two to four weeks prior to root pruning, through the period of root pruning, and after root pruning and transplantation until the tree has been completely reestablished at the new planting space. This may be several years from the point of root pruning. Irrigation shall be operated automatically with water being applied directly to and just outside of the remaining intact root system. Watering frequency shall be such so as to ensure that free water is available to the root system at all times. Any temporary disruption in automatic operation shall be supplemented by hand watering.
- h. There should be no canopy pruning or a minimum of canopy pruning before or after root pruning, as the presence of leaves helps root systems recover. Only dead, diseased or damaged branches shall be pruned at this time.
- i. The root system of a tree to be relocated shall be well-watered before the tree is dug and lifted to ensure that the tree is properly hydrated, and to improve cohesiveness of the root ball.
- j. All planting, transplanting and relocating of trees or palms shall, at minimum, be done in compliance with standards set forth in the most recently published edition of the **ANSI A300 (Part 6 Planting and Transplanting) Standards**. This requirement includes all procedures, techniques, standards for minimum root ball size, and any other standards included in ANSI A-300 Standards.
- k. Relocated trees shall be braced in such a fashion as to not scar, penetrate, perforate, or otherwise inflict damage to the tree.

Standards 4. Tree Pruning

- l. Tree pruning is to be performed in accordance with ANSI A-300 Standards and good horticultural practices. Hatracking, girdling, spiking or any other pruning activities that effectively destroy a tree(s) are prohibited. The City may require that construction activities minimize negative impacts to tree canopy.
- m. Any Tree Service performing palm or tree pruning activities not solely limited to removal of dead palm fronds on private or public property within the City must have an individual present onsite to perform or oversee the work who is either an ISA Certified Arborist or an ASCA Registered Consulting Arborist in good standing.
- n. Trees shall be pruned in the following manner:
 - All cuts shall be clean, flush and at junctions, laterals or crotches. Cuts shall be made as close as possible to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub. Tree limb reduction cuts shall be the preferred option with tree limb removal cuts performed only as a last resort.
 - Removal of dead wood, cross branches, branches with poor angles of attachment and thinning of suckers shall be accomplished simultaneously without any reduction in crown.
 - Pruning of lateral branches that results in the removal of more than one third of all branches on one (1) side of a tree shall not be permissible unless allowed per Sec. 46-62 (5)(c).
 - Lifting of branches or tree thinning shall be designed to distribute over half of the tree mass in the lower two thirds of the tree.
 - No more than 25 percent of a tree's living canopy shall be removed within a one (1) year period.
 - Tree canopy removal of greater than 25 percent may only be considered under the following criteria as outlined herein: a. The tree is located in the proposed building footprint area or yard area where a structure or improvement shall be placed and unreasonably restricts the permitted use of the property. Trees located in the property frontage (within the City of North Miami Beach's required setback), shall not be considered to be located within the building footprint or yard. Trees on the public right-of-way shall not be considered for removal of more than twenty five percent of a tree's canopy as a result of restriction to or from ingress or egress to the garages or parking on the site, provided however, that if there is no other reasonable access to and from the structure or to the property from the public right-of-way, as determined by the Environment and Sustainability Director or his/her designee the Planning and Zoning Department. Authorization to remove more than 25 percent of a tree's canopy including right-of-way trees must be received prior to issuance of a building permit.

- The tree is diseased or damaged; creates hazardous conditions; interferes with utility service; creates unsafe vision clearance; or materially impairs the structural integrity of an existing structure.

If tree pruning is required to facilitate a construction project, the Planning and Zoning Department may require that the property owner provide a written report from an ISA Certified Arborist and or ASCA Registered Consulting Arborist before making any determinations in conjunction with this Section. The Planning and Zoning Department may also require monitoring by an ISA Certified Arborist and or ASCA Registered Consulting Arborist during construction to assure proper tree pruning practices are implemented.

5. Tree Remediation and Replacement

- o. Should any trees or palms be damaged they shall be evaluated by the City Planning and Zoning Department to determine corrective actions that may include removal, corrective pruning and or replacement. Any corrective actions required shall be performed in accordance with Miami Beach Code, the most recent version of the **ANSI A-300 (Part 1) Pruning Standards** and or any issued Tree Work Permit(s) or Environmental Permit(s). Any corrective pruning required shall be performed by an **ISA Certified Arborist, or ASCA Registered Consulting Arborist** and the City Planning and Zoning Department shall be notified in writing.
- p. For minor repairable damage: Promptly repair trees within 24 hours after consultation with the City Planning and Zoning Department. Treat damaged trunks, limbs, and roots according to written instructions of the City Planning and Zoning Department and or Tree Preservation Program staff. For compacted soil:
 - Aerate surface soil 10 feet (3 m) beyond drip line and no closer than 36 inches (900 mm) to tree trunk. Drill 2-inch- (50-mm-) diameter holes a minimum of 12 inches (300 mm) deep at 24 inches (600 mm) o.c. Backfill holes with an equal mix of augured soil and sand.
- c. For major damage, effective destruction and/or death of trees or palms:
 - Remove and replace with new tree(s) or palm(s) of equal total caliper, as selected by the Landscape Architect after consultation with the City Planning and Zoning Department, Planning staff and in accordance with all applicable permits.
 - An after-the -fact City Tree Removal Work Permit shall be required for any effectively destroyed trees and double fees may be assessed in addition to any required mitigation canopy.

