

# Jersey City

# Forestry Standards

## 2023



Department of Public Works  
Department of Infrastructure  
Department of Business Administration  
Division of City Planning

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# How to Use This Document

## **For Residents, Business Owners, and Developers and applicable City Agencies (Zoning, Planning, Engineering)**

This Jersey City Forestry Standards provides information on City Tree maintenance and tree plantings in the City Public Right-of-Way, which includes all public sidewalks. Deviations from the Jersey City Forestry Standards without City approval shall constitute a violation of Chapter 321 of the Municipal Code.

**Section I - General Street Tree Information** - contains an overview of City Tree policies and procedures. Residents and business owners interested in planting or removing a City Tree or who want to report a tree-related issue to the City shall review and follow all the instructions and standards this section of the Forestry Standards.

**Section II - Detailed Tree Planting Standards** - contains detailed information on how to properly install, maintain, protect, and remove street trees within Jersey City. Information in this section includes required tree pit specifications, tree species standards, soil and mulching requirements, and surface treatments. Developers, contractors, and anyone undertaking street tree work shall read this section of the Forestry Standards.

### **Residents and Business Owners**

If you are interested in planting a tree in the sidewalk adjacent to your home or business:

You have the option of (1) requesting that a street tree be planted by the City as part of its biennial tree planting or by using your web browser to visit [the Division of Sustainability's Tree Services Form](#) or (2) applying for a tree work permit to plant the tree yourself. See Section I.B. - Tree Plantings for more information.

If you are interested in planting or removing a tree on your private property:

No City permits are required to plant or remove a tree on your property. All private landscaping, including tree plantings, should follow the landscaping requirements in Section 345-66 of the City Code. This document does not apply to planting or removing a tree on private property.

If you are concerned about the condition of a tree in your neighborhood:

Please see Section I.C. - Maintenance for more information on calling in a tree problem. See Section I.D. - Tree Removals and Replacements for more information on tree removals. Tree issues can also be reported online by visiting [Jersey City's SeeClickFix](#) with a web browser.

If the tree adjacent to your house is causing damage to your property:

Please see Section I.C. - Maintenance for more information on Calling in a tree problem. See Section I.D. - Tree Removals and Replacements for more information on tree removals.

### **Developers**

If you need to install street trees as part of your development:

New developments are required to provide street trees along the sidewalk adjacent to the property. All new street tree installations must follow the Forestry Standards. Please see Section II – Detailed

Tree Planting Standards for detailed information regarding design, installation, and maintenance of street trees.

If you are performing construction work near an existing street tree:

All construction work within 25 feet of an existing street tree must receive a tree work permit and all trees must be properly protected during the construction period. Please see Section II.G - Tree Protection for more information.

If you need to remove a street tree as part of your construction project:

All street tree removals must be approved by the City of Jersey City. Please see Section I.D. - Tree Removals and Replacements and Section II.F - Tree Replacement for Private Plantings for more information.

## Overview

Street trees are important to our quality of life within the City; they are living elements of our street infrastructure. Located on the public right-of-way, they provide cooling shade, cleaner air, water filtration and more beautiful urban streetscapes. However, trees in the urban landscape face a variety of environmental and physical stresses including pedestrian and vehicular traffic, soil compaction, air and soil pollution, and drought. Some of the key factors to maximizing long-term tree survival are proper siting, careful handling, and immediate and continued aftercare.

All trees planted in the public right-of-way or within parks are under the jurisdiction of the City of Jersey City.

A valid tree work permit must be obtained in order to plant, prune, remove, or otherwise disturb a tree on any sidewalk or other location within the public right-of-way. Plantings must be done in accordance with the City's current Forestry Standards. Any tree work improperly performed or otherwise not in accordance with these specifications may be subject to remedial work at the tree work entity's expense, and/or additional penalties.

New developments within the City must provide the required number of street trees and landscaping as stipulated in the City's zoning code. The City of Jersey City maintains a forestry crew of trained personnel for regular and emergency tree trimming and removal. Forestry crews are organized to answer directly to the City as well as the Municipal Forester.

The City of Jersey City has an existing Community Forestry Management Plan (CFMP) and is an accredited municipality under the NJ Shade Tree and Community Forestry Act. The CFMP can be found at <https://www.jcnj.org/cfmp>.

# I. GENERAL STREET TREE INFORMATION

## I.A. DEFINITIONS

**CITY TREE:** means (a) any living, self-supporting woody perennial plant that has a trunk diameter of at least two inches or more when measured at a point six inches above ground level and which normally attains an overall height of at least ten feet at maturity, usually with one main stem or trunk and several branches; and (b) planted in a public right-of-way, in a City park or on property owned by the City. The term "City tree" does not include trees on private property.

**CALIPER:** Caliper measurement shall be taken six inches above the ground level for field grown stock and from the soil line for container grown stock, which should be at or near the top of the root flare, and six inches above the root flare for bare root plants, up to and including the four-inch caliper size interval (i.e., from four inches up to, but not including, 4½ inches). If the caliper measured at six inches is four and one-half inches or more, the caliper shall be measured at 12 inches above the ground level, soil line, or root flare, as appropriate.

Seldom are tree trunks perfectly round. The most accurate measurement will result from the use of a diameter tape. Caliper measurements taken with manual or electronic "slot" or "pincer" type caliper tools should be the average of the smallest and largest measurements

**COMMUNITY FORESTRY MANAGEMENT PLAN (CFMP):** A plan developed by a municipality that outlines the goals and objectives for managing trees on municipal property with the intent of minimizing liability to the municipality and maximizing the useful life of the tree resource. The plan is to be approved by the New Jersey Department of Environmental Protection, City of Jersey City, New Jersey Forest Service. The Shade Tree Committee shall be consulted to create and implement the CFMP.

**CROWN:** The top part of the canopy (Figure 1).

**DRIP LINE:** The soil surface delineated by the branch spread of a single plant or group of plants.

**HISTORIC DISTRICTS:** Any district defined and referenced in Chapter

**JERSEY CITY FORESTRY STANDARDS:** The document promulgated by the City of Jersey City detailing the City's standards for the planting, maintenance and removal of City trees as defined herein. The Jersey City Forestry Standards shall be written and updated in consultation with the Shade Tree Committee and shall be subject to adoption by resolution from the Municipal Council.

**LATERAL BRANCHES:** The secondary branches that emerge from scaffold branches (Figure 1).

**LEADER:** means the vertical stem at the top of the trunk (Figure 1).

**MUNICIPAL FORESTER:** The employee of the City of Jersey City responsible for overseeing the planting, maintenance and removal of all City trees and who is responsible for promulgating the Jersey City Forestry Standards as well as the list of City tree valuations published annually.

**ORDINANCES:** Rules related to City trees can be found in Chapters 321 - TREES and 345-66 - LANDSCAPING of the Jersey City Municipal Code. These ordinances are included in the appendix.

**PUBLIC RIGHTS-OF-WAY:** All land in the City of Jersey City dedicated or expressly reserved for the use of vehicular or pedestrian traffic and/or utilities.

**PRUNE:** The cutting or removing less than 25 percent of the branching structure of a tree in the crown, trunk or root areas.

**SCAFFOLD BRANCHES:** The primary limbs that form a tree's canopy (Figure 1).

**30/20/10 Rule:** In any given area, no more than 30% of the trees planted should be in the same plant family, no more than 20% should be from the same genus, and 10% from the same species.

**TOPPING:** The cutting or removing the leader or upper branches in such a way as to disfigure the canopy resulting in stunted or abnormal growth.

**TREE SPECIALIST:** The Tree Specialist is responsible for the inspection of sites for which application (s) are filed under this chapter. This individual will be responsible for the administration and protection requirements of this chapter and enforcement of the chapter as directed by (Shade Tree Committee)

A Tree Specialist is either of the following:

1. A Municipal forester who shall be certified by the State of New Jersey. The municipal forester shall have the responsibility of reviewing and approval of Forestry Management Plan and site inspections.
2. A conservation officer who shall be certified by the State of New Jersey and shall have a minimum of three years' experience in planning, care and maintenance of trees.
3. A New Jersey State certified Arborist.

**TRUNK:** The stem and main wooden axis of a tree.

**Tree Work Entity:** A Developer, Property Manager, Building Owner, SID, Business Owners, Contractor that is contracted to plant and / or maintain Trees / Green Infrastructure associated with a specified footprint or street address, e.g, Building perimeter including oversight property such as plaza, walkway, pocket park, etc., which is designated as public right of way space.

## **I.B. TREE PLANTINGS**

City residents or business owners who would like to plant a tree in the sidewalk adjacent to their property, which is in the city's right of way, may either request a tree from the City of Jersey City during their biennial tree planting or plant their own tree by requesting a permit from the City of Jersey City.

Please see I.B.1. *City-Sponsored Tree Plantings* below for more information on how to request a tree from the City. For residents and business owners requesting a permit to plant their own tree, please see *Section II - Detailed Tree Planting Standards* and the tree planting standard details in Appendix B.

### **I.B.1 City-Sponsored Tree Plantings:**

City residents who would like to have a tree planted by the City in the sidewalk adjacent to their property, which is in the city's right of way, may apply to the City of Jersey City who will plant the tree during the biennial tree planting season. Depending on available funding there may be a fee involved. The Seasonal Tree Planting Form will be available on the City website: [Division of Sustainability's Tree Services Form](#).

For steps on how the City implements city-sponsored tree plantings, refer below:

#### **Step 1: Survey**

Jersey City municipal forester or forestry crew members survey every potential planting location to determine if it can accommodate the healthy growth of new trees. Jersey City surveys potential sites on blocks with few or no trees, where trees have been removed and upon request from residents in all wards. Not every potential location is suitable for a street tree. When siting trees, the municipal foresters take into account local environmental conditions as well as available space and clearances for tree growth.

### ***Step 2: Marking***

A municipal forester and the planting contractor will then visit the planting site to mark out the future tree bed and tree location. A white "T" is painted on the curb where the tree will be planted. You may also see white marks on the sidewalk to indicate the corners of the future street tree bed.

### ***Step 3: Utilities***

The utility companies mark the underground gas (yellow), electric (red), water (blue) and telecommunication (orange) lines at the proposed planting location to ensure that the tree planting will not conflict with any of these utilities. Though a site may have been approved during the survey process, it may later be declined after the utilities are marked on the sidewalk and street. (See Street Tree Spacing Guidelines in the Appendix for more information).

### ***Step 4: Site Preparation***

Jersey City's planting contractors often prepare the sidewalk before the tree is planted. You may see saw cuts in the sidewalk along the edges of the tree bed, or the concrete may even be removed entirely leaving an open tree planting area. Preparing the site ahead of time makes it easier to plant the tree at a later date and allows the contractor to plant more trees during the short planting seasons. Don't worry if you see sidewalk preparation and the tree was not planted. The contractor will be back to plant the tree, most likely within a few weeks depending on the weather. If inclement weather prevents contractors from fulfilling their planting obligations by the end of the season, the tree bed will be addressed the following season.

### ***Step 5: Species Selection and Tree Planting***

A tree species list for street tree plantings is included in Appendix C. Residents and business owners requesting a tree during the biennial tree planting shall have a tree planted in front of their property selected by the Municipal Forester from Appendix C. Municipal foresters consider many factors in matching a suitable tree species for each tree planting location. Some important criteria in choosing which species is most appropriate includes flood/drought conditions, soil compaction/pollution, sunlight, surrounding tree canopy, sidewalk width, and clearance distance from nearby infrastructure and overhead utility power lines.

Each tree will have two wooden stakes on either side for support and shall be fastened to the tree with a suitable length of wide, flat, woven polypropylene material. The area around the tree will be covered in mulch to minimize weed growth and retain water.

The new tree will be planted during the Fall and Spring seasons.

### ***Step 6: Guarantee Period and Maintenance***

All street trees are under a guarantee period of two years after they are planted. During the guarantee period time, the planting contractor is responsible for regular maintenance of the tree, including the provision of at least 20 gallons at approximately two week intervals from May 15 to October 31 (with increases or reductions if the frequency of watering based on weather conditions, resulting soil water content or other factors), weed removal, replacing missing soil or mulch, minor pruning (including cutting off suckers and sprouts at the base of the tree), removing or resetting tree stakes as needed and other horticultural operations necessary for the proper growth of all trees, and for keeping the entire area within the planting area neat in appearance. The contractor is also required to water the tree with at least 20 gallons at least once every two weeks from May 15 through October 31. The frequency of watering may need to be increased or reduced based on weather conditions. If a tree dies during the guarantee period it will be replaced by the contractor in the next planting season.

### ***Step 7: Maintenance after Guarantee Period***

#### **Maintenance during planting**

##### Watering

The soil around each tree shall be thoroughly saturated with at least 20 gallons (20 gal) of water. Soil shall be firmed at 6-8 inch intervals and thoroughly settled with water. Water shall be free from oil, have a pH not less than 6.0 nor greater than 8.0 and shall be free from impurities injurious to vegetation. Water shall not be applied in a manner which damages plants, stakes, or adjacent areas. Each tree bed shall be watered evenly in a manner which does not erode the soil or mulch. Watering shall not cause uprooting or exposure of plant roots to the air.

##### Mulching

Mulch shall be applied as a ground cover to the surface of all planting beds at the time of planting and again after the tree stakes have been removed, one year after planting. (See Appendix B for Mulch specifications). Mulch shall be applied to a uniform depth of 3 inches and shall be so distributed as to create a smooth, level cover over the exposed soil. A gap of approximately 2-3 inches should be left between the mulch and the trunk of the tree to avoid mounding above the trunk flare.

Damages resulting from these operations shall be immediately repaired at the expense of the applicant.

##### Seasonal Maintenance after 2-year guarantee

After the two-year guarantee period, the City of Jersey City is responsible for the maintenance of trees in the city's right of way. However, Jersey City residents are strongly encouraged to help water street trees weekly during the warmer seasons, 20 gallons or more every 2 weeks based on weather conditions after the two-year guarantee period has expired.

#### **I.B.2 Tree Planting Requirements for Special Projects and Green Infrastructure**

Trees planted in parks, traffic triangles, and along streets as part of special projects or green infrastructure projects by community groups, individuals, organizations or government agencies will require approval from various City departments and provisions for maintenance in place. For green

infrastructure projects installed as part of a private development project, the design and maintenance requirements shall be facilitated through the Planning Board or Zoning Board of Adjustment approval process.

If you are interested in installing a special project or Green Infrastructure project on City-owned property, please contact the Jersey City Department of Infrastructure, Division of Sustainability at (201) 547-5550.

Additional guidance on best stormwater management practices can be found in the [NJ Stormwater Best Management Practices Manual](#).

## **I.C. CITY TREE MAINTENANCE**

Two years after they are planted, trees within the Public right-of-way and in City Parks are maintained by the City of Jersey City. However, residents are encouraged to report any observed issues during or after this period, to 201 547-5550 or by visiting [Jersey City's SeeClickFix](#) with a web browser.

For issues regarding trees that are not in City Parks or the Public right-of-way, the City of Jersey City will not be able to respond.

If the problem tree is on your own property, please call a private tree company. If the problem tree is on someone else's property, please refer the issue to Housing Code Enforcement by calling 201-547-3824.

If a tree is lifting a sidewalk at a property other than your own property, please contact DPW dispatch at 201-547-4400 and request an inspector see the site. Issues can also be reported by visiting [Jersey City's SeeClickFix](#) with a web browser.

### **I.C.1 Reporting a tree problem:**

1: Call the City of Jersey City at (201) 547-5964 to report a problem with trees on City roads. (For tree issues related to power lines or tree trimming around power lines, please call PSE&G's Customer Service Center at 1-800-436-PSEG (7734) for assistance. To report a tree problem on County Roads such as John F. Kennedy Boulevard, please contact Hudson County at (201) 915-1388.) Issues can also be reported by visiting [Jersey City's SeeClickFix](#) with a web browser.

2: An inspection form is created and given to the Municipal forester.

3: Inspections are routed and carried out a few days each week. Routes are usually created for each ward, though in times of high-volume routes may be created by the date they are received. Inspections usually happen within two weeks of receiving the call, but may be delayed by as much as a month during the busy times of the year. Sites are rated on the severity of the problems identified upon inspection. Regular trim requests are considered low priority while large dead trees are considered the highest priority.

4: Inspection sheets are filled out and turned over to administrative staff to be entered into the forestry work log.

5: Sites on the work log are added to the daily logs for the forestry crew. It may take up to a month for sites to be completed from the time they are entered into the work log depending on the severity of the situation and the volume of calls received.

Refer to the Jersey City Service Level Agreement, below, if you have any questions about the City response system.

If you notice that there is a problem with a City tree such as a large dead limb or the tree is in severe decline, you are encouraged to call the City of Jersey City at (201) 547-5964 to report it. Issues can also be reported by visiting [Jersey City's SeeClickFix](#) with a web browser.

For tree issues related to power lines or tree trimming around power lines, please call PSE&G's Customer Service Center at 1-800-436-PSEG (7734) for assistance.

### **I.C.2 Jersey City's Service Level Agreement:**

Within 14 days of your report, the Municipal forester or a forestry crew member will be out to the site to inspect the tree as per the report. Please be sure to provide as much information as possible regarding the location of the tree and any problems that have been noticed to ensure that the inspection is complete and accurate. Photos of the tree in question and the entire site are always helpful.

Within 21 days of your report, we will be able to respond to you regarding the status of the work needed. By this time, the Municipal forester will have determined if work is required and if so, the extent of the work necessary to remedy the problem. Providing an email address with your report is the best way for us to remain in contact.

Currently, dead trees and hazard limbs eligible for removal are prioritized with minor pruning worked into the schedule when possible. Please be patient as we are working hard to keep the city safe as well as attend to our regular maintenance obligations. If minor pruning is scheduled and it does not take place within 90 days of your report, please contact our office. Issues can also be reported by visiting [Jersey City's SeeClickFix](#) with a web browser.

### **I.C.3 Pruning**

Incorrect pruning of trees can lead to tree damage and death. Residents should not attempt to prune street trees; it can be considered vandalism if they do so. If a resident identifies a street tree that requires pruning, please report the matter to the Residents' Response Center or by visiting [Jersey City's SeeClickFix](#) with a web browser.

When inspecting for a pruning request, the City of Jersey City is looking to identify deficiencies in structure or form (shape and growth of the tree), damaged or dead limbs, and low hanging limbs that may interfere with pedestrians or vehicles. Aesthetics are considered as well, but the City at this time does not prune trees solely for aesthetic purposes. The City follows the pruning practices outlined in the ANSI A300 pruning standards. For more details on the pruning techniques the City follows, please see Section II.E.1.

Once any deficiencies or issues are corrected by pruning, the work is considered complete, and the tree will most likely not be re-inspected until a year has passed from the date of completion. It should be noted that one of the goals of pruning is to accomplish the necessary corrections with the least amount of cuts and material removed as is possible.

Currently, the City of Jersey City does not prune trees for clearance around power lines. Line clearance and maintenance can be very dangerous and is the responsibility of PSE&G and their tree work contractors. If you have concerns about branches growing on or near wires, you are advised to contact PSE&G's Customer Service Center at 1-800-436-PSEG (7734) to report your concerns.

## **I.D. CITY TREE REMOVALS AND REPLACEMENTS**

### **I.D.1. City Tree Removal**

The rules and instructions of these Forestry Standards are meant to lengthen the lifespan of Jersey City's street trees for as long a period of time as possible. However, every City tree will eventually reach the end of its lifespan and need to be removed. Residents and business owners who are concerned that a tree is dead or dying should call it in to the Jersey City DPW for inspection. Once the tree inspection is completed, trees found to be dead or hazardous are prioritized for immediate removal while trees in need of pruning or minor work are placed in the queue for pruning. Residents may also apply for a street tree removal permit if they would like to do it themselves if the tree is eligible for removal pursuant to section I.1.D.1.a.

Removal of trees on private property is not the responsibility of the City. If the problem tree is on your own property, please call a private tree company. If the problem tree is on someone else's property, please refer the issue to Housing Code Enforcement by calling 201-547-3824.

Approved removals are scheduled within two weeks of the date they are entered into the work log. There may be a delay of up to one week from the time they are inspected to the time they are entered. The City of Jersey City will always try to adhere to the Service Level Agreement though there may be times during the year when high seasonal volume causes some delays. Residents can also request tree removal if it meets the criteria listed in Section 1.D.1.a.

#### **I.D.1.a. Removal Criteria**

In order for a City tree to be eligible for removal, in consultation with the City's Municipal forester or Municipal forester's representative, one or more of the following conditions must be met:

1. The tree poses a danger to persons or property which cannot be remedied except by removal
2. More than 50% of the canopy is dead or the entire tree is dead, and the Municipal forester determines that the tree cannot recover.
3. The tree has large wounds on large branches and the trunk that are permanently detrimental to the tree's stability.
4. The tree is showing advanced decay or hollow trunk, and the Municipal forester ascertains that the tree cannot be rehabilitated or poses a safety hazard.
5. The tree is infected with a virulent disease or invasive insects (such as ALB or EAB) and cannot be remedied by standard treatment options.

6. A collision with a vehicle or a storm has uprooted or partially uprooted a tree
7. Tree has become unstable or is in serious decline
8. With the approval of the Municipal forester, and in consultation with the Shade Tree Committee, the Planning Board or Zoning Board has approved a new building which requires removal of a tree/s
9. The tree is causing sidewalk lifting and no mitigating solution or expansion of the existing tree pit can be reasonably implemented.

Removal of City trees by anyone other than the City of Jersey City or a company contracted by the City requires a permit and permit work order from the City of Jersey City. Removal without a permit is illegal. Furthermore, the filling in or paving over of a tree pit without written approval from the Municipal forester is strictly prohibited. Anyone removing a tree or tree pit without a permit from the City of Jersey City is subject to fines.

#### **I.D.2. City Tree Replacement**

Any tree planted that is dead or, in the opinion of the Municipal forester, in an unhealthy or unsightly condition, and/or has lost its natural shape due to dead branches, excessive pruning, inadequate or improper maintenance, or other causes including vandalism, will need to eventually be replaced unless such conditions may be rectified by remediation. Any tree planted by a private contractor that dies within its guarantee period shall be replaced in the next planting season.

As per the ordinances of Jersey City, the City is obligated to replant every tree removed for a public project on a one-for-one basis. This replanting will most likely take place within a year from the date of removal as planting during the current or upcoming planting season is usually not an option. Often the replacement tree cannot be replanted in the exact place of the original tree due to conflicts with infrastructure or previous poor placement. In these circumstances, the replacement tree will be placed in the next nearest available space.

Individuals and developers that have planted trees as part of a development obligation must replace all removed trees within one year of removal. Details regarding tree removal and replacement standards can be found in *Section II.F - Tree Replacement for Private Plantings*.

All other trees will be replaced by the City according to available resources. It is the goal of the City to replace all removed trees, if site conditions permit.

#### **I.E. VANDALISM**

Any act of vandalism to a City Tree will not be tolerated. Prohibited actions are identified in the Jersey City Code of Ordinances Chapter 321 – Trees. All violators will be subjected to a minimum penalty of a \$100 fine and a maximum penalty of \$2000, including all other remedies allowable by law.

Please report any vandalism to the City via telephone, at (201) 547-5964. Vandalism can also be reported by visiting [Jersey City's SeeClickFix](#) with a web browser.

## **I.F. PLANT PEST CONTROL REQUIREMENTS**

No person shall treat a city tree or tree pit with any pesticide, herbicide or other pest control measure without a permit from the City. Any unpermitted acts of pest control can be considered an act of vandalism (see above).

## **I.G. ENFORCEMENT**

Enforcement of violations of the Forestry Standards including but not limited to the unauthorized removal, damage, or vandalism of a city tree shall be carried out by the City of Jersey City. All assessments of damage shall be conducted by the Municipal Forester or another Tree Specialist as designated by the City. To report violations of the Forestry Standards, witnesses should contact (201) 547-5964. Issues can also be reported by visiting [Jersey City's SeeClickFix](#) with a web browser.

## II. DETAILED TREE PLANTING STANDARDS

All new buildings and all additions exceeding 20 percent of the floor area must provide one new or existing street tree for approximately every 25 feet of building road frontage as determined by the Municipal Forrester and the Division of Planning. If planting of new street trees is determined not to be practical at a given location by the Municipal forester, then a monetary contribution equal to the cost of installing a new street tree must be paid to the City.

### II.A. DESIGN REQUIREMENTS

#### II.A.1. Spacing Requirements

The following requirements shall be followed when surveying for tree beds along sidewalks. These guidelines generally follow regulations of other agencies with jurisdiction or infrastructure on the right-of-way. These requirements are design and tree species dependent. The *American with Disabilities Act* (ADA) guidelines must also be followed. The Division of Parks & Forestry may waive some of the below spacing requirements for unique circumstances (See Street Tree Spacing Guidelines, Appendix A, for more information).

- a. Do not plant directly in front of building entrances in order to permit easy access by the Fire Department and other emergency services. A tree may be placed in front of an entrance if the sidewalk is at least 15' wide at that point or the distance from the entrance to the tree is at least 12'.
- b. The minimum width of sidewalks free of impediments is 3' to maintain ADA compliance. No tree pit will be placed that will impede upon the required 3' passageway on sidewalks.
- c. Do not plant along the street within bus stops. Trees may be offset from the curb ten feet along a bus stop.
- d. Minimum horizontal distance from water main to tree trunk is 6 feet.
- e. Minimum distance between trees (trunk to trunk) shall be 20 feet to 30 feet, depending upon the tree species and other local conditions.
- f. Minimum distance from a streetlight or utility pole to the tree trunk is at least 15 feet.
- g. Minimum distance from traffic signs to the tree trunk is 25 feet and shall not interfere with visibility of said sign when tree is leafed out.
- h. Suggested distance from a parking meter to tree trunk shall be no more than 5 feet, to allow for the swing of car doors.
- i. Minimum distance from a gas or water valve to the edge of the tree pit is at least 2 feet.
- j. Minimum distance from an oil fill pipe to the edge of the pit is 4 feet if active. If non-active, it may be located anywhere outside the pit.
- k. Minimum distance from a fire hydrant to the trunk is at least 5'.
- l. Minimum distance from a curb cut or driveway to the edge of the pit is 1 foot and to the tree trunk to flush curb is 5 feet.
- m. Minimum distance from the corner of a street intersection to the tree trunk is 30 feet.
- n. Minimum distance from the edge of the pit to any opposite obstruction (building wall, stoop, railing, property line etc.) is from 4 to 6 feet, depending upon local conditions and the amount of sidewalk traffic.

- o. All tree pits must be contiguous to the street curb (except as noted below, or with the permission of the Municipal forester).
- p. Trees may be planted on either side of sidewalks in lawn areas (if any exist) where there is sufficient room between the property line and the street curb. Trees must still be within the city right of way.

Additional design or spacing requirements may be imposed at the discretion of the Municipal forester reviewing your application depending on the location and site conditions. Exceptions to these guidelines may be made at the Municipal forester’s discretion.

**II.A.2. Tree Pit Dimensions**

Tree pits should be as large as possible to allow for adequate water infiltration, ample growing space for the tree’s roots and to reduce the likelihood of future sidewalk lifting. The larger the soil volume the larger the tree size will be at maturity and the better chance it has for long-term survival. However, the width of a sidewalk can limit the size of a tree pit. Sidewalk use and location may also affect tree pit configuration.

The standard street tree pit for any sidewalk greater than 10 feet wide is 5 feet wide by 10 feet long and 2 feet deep. The standard tree pit will have a min of 5 foot by 5-foot *exposed planting area\**. Tree pits in residential areas with low foot-traffic or on especially wide sidewalks are encouraged to have the entire surface area open and mulched.

Narrower sidewalks may require narrower tree pits. Any installation of material within the exposed planting area of the tree pit must be approved by the Municipal forester. The installation of continuous tree pits is encouraged whenever possible, and design proposals that call for continuous tree pits may be given more flexible spacing requirements by the Municipal forester (see Appendix B, page ix).

The Exposed Planting Area\* is the surface area of the tree pit that is left open to the elements. It is important that this area is adequately sized to allow water to permeate the soil and tree roots.

**Preferred Tree Pit Dimensions**

Sidewalk Width	Tree Pit			*Minimum Exposed Planting Area		Detail Page Number
	Width (ft.)	Length (ft.)	Depth (ft.)	Width (ft.)	Length (ft.)	
10’ and greater <i>Standard</i>	5	10	2	5	5	lii, v, vi
9’-10’	5	10	2	4	6	vii
8’-9’ <i>Narrow</i>	5	10	2	3	5	viii
Less than 8’	Must see Municipal forester					

Additional design or spacing requirements may be imposed at the discretion of the Municipal Forester reviewing your application depending on the location and site conditions. Exceptions to these guidelines may be made at the Municipal Forester's discretion.

Tree pits should be as large as possible to allow for ample growing space for the tree's roots and to reduce the likelihood of future sidewalk lifting. The standard street tree pit size is 5 feet by 10 feet. The overall width of a sidewalk can limit the size of a tree pit. Where a 5 feet by 10 feet tree pit is not possible, alternate dimensions must be approved by the Municipal forester.

***The filling in or paving over of a tree pit with any material without written approval from the Municipal forester is strictly prohibited.***

### **II.A.3. Grouped Plantings**

Grouped plantings are sites where trees are planted closer than 20 feet from each other (trunk to trunk). Grouped plantings provide a number of environmental benefits which include: increased shading, reduced evapotranspiration, reduced soil compaction, greater available soil volume, and reduced exposure to reflective heat for an individual tree. A grouped planting can be achieved in several types of sites: (1) a median or traffic triangle with opportunity for a large planting bed; (2) a continuous tree pit, where two or more trees are planted in a single trench in the sidewalk (at least 30 feet long); or (3) a raised planting bed within a plaza or alongside a pedestrian passageway. Grouped plantings are not often the preferred method of planting and are subject to approval at the discretion of the Municipal forester reviewing your proposal. (Appendix B) All grouped plantings, of any distance between trees, shall follow the 30/20/10 rule for diversity.

### **II.A.4. Structural Soils**

The City encourages the use of structural soils where appropriate, and may require its use where it is deemed necessary. Trees are not to be planted directly in structural soil, and structural soil is only to be used as a base material under hard surfaces such as concrete, permeable pavement, or permeable pavers. Exposed soil or grass-covered surfaces should be excavated and replaced with fresh topsoil meeting Jersey City Forestry Standards. The Division of Parks & Forestry has approved the use of CU and Swedish Structural Soils, and they must be installed in accordance with Parks' specifications (Appendix B). Structural soils can only be installed with the prior consent of the Municipal Forester reviewing your application and the use of a licensed structural soil manufacturer is required.

### **II.A.5. Soil Cells (Silva Cells)**

Soil cells such as Silva Cells, may be used where appropriate. They can only be installed with the prior consent of the Municipal Forester reviewing your application and must be installed in accordance with Parks' specification (Appendix B).

### **II.A.6. Species Selection**

Growing conditions and microclimates can vary from location to location within a ward and across the City. Species selection should take into account site conditions, design goals, and diversity goals. In choosing a species, the mature height and spread shall be considered to ensure that it will not interfere with existing or proposed structures and overhead utilities. The final selection of the species for each site is made by the Tree Specialist. The City publishes a list of approved species for planting on the right-of-way. (Appendix C). Alternate species not found on the approved list may be considered on a

case-by-case basis; however, the City retains the right to determine what species is planted on the right-of-way. You may only plant the species indicated on the permit and must follow any terms and conditions described on the permit. Season, site conditions, and location will affect which species may be planted. If certain species are needed for specific design elements this should be brought to the attention of the City in the application. Landscape designs may require a longer period of review, so be sure to submit your application well in advance of the date of planting.

## **II.B. PLANTING SPECIFICATIONS**

Planting shall consist of excavating all tree pits, planting, and maintaining new trees of the type and size designated on the approved list. All work shall be in accordance with the specifications within the Jersey City Forestry Standards and to the satisfaction of the Municipal forester.

Applicants are liable for any damage to property caused by planting operations and related work. All disturbed areas shall be restored to their original condition.

### **II.B.1. Planting Seasons**

Trees may be planted in the Fall and in the Spring seasons. The seasons typically run from October through December for Fall and from March through May for Spring, weather dependent. No planting is permitted in the summer. Extensions to start early or plant late may be given at the City's discretion based on current weather conditions and with the approval of the Municipal forester.

### **II.B.2. Site Preparation**

If any new tree pits have to be cut in concrete, a permit must first be obtained from the Jersey City Division of Engineering, Traffic and Transportation. A permit shall be required for each block where the pavement is broken for a new pit. It is the responsibility of the applicant to notify all owners/operators of underground facilities.

No pits shall be dug until proposed locations have been marked on the ground with a white 'T' by a Municipal Forester. Once work begins, the applicant takes full responsibility for the tree pit locations until the end of the guarantee period. All excavated materials shall be removed from the site and disposed of properly. The area is to be made safe and secure at the end of the workday.

Site characteristics, such as overhead power lines, existing vegetation, and infrastructure items, such as curbs and sidewalks, shall be considered. Trees that grow taller than 25 feet should not be planted directly under power lines. When possible, the tree shall be offset from power lines.

Where subsurface obstructions (vaults, utilities, sprinklers) are encountered during excavation and restrict the planting of a tree, the contractor shall restore the disturbed area to its original condition. If damage is done to an underground obstruction, it is the responsibility of the applicant to restore the site to its original condition. A new planting location will be designated if conditions permit.

Applicants are only permitted to occupy an 8-foot lane adjacent to the curb. Traffic shall not be blocked off at any time during planting operations without approval from the Division of Engineering, Traffic and Transportation. If the contractor needs to occupy any portion of the public right-of-way for construction, a Traffic Permit is required. There is no fee for the permit, but it is needed for the contractor to obtain temporary "No Parking" signs from the Parking Authority and, if necessary, to schedule police protection with the police department. The "No Parking" signs need to be picked up

from the Parking Authority and posted for 48 hours in order for the Parking Authority to enforce them. If the contractor will be excavating in the public right-of-way, a Street/ Sidewalk Opening Permit is required from the Division of Engineering, Traffic and Transportation. This permit has fees based on the size of the excavation. All excavation projects will need to incorporate pavement restoration requirements, in accordance with the City Ordinance 15.00 Section 296-42 Regulations. Work shall not be performed on opposite sides of the street at the same time. Existing parking regulations shall be complied within so far as "No Standing" rules apply for the time limits specified.

### **II.B.3. Species Sizing and Grading**

All trees shall be dug immediately before moving unless otherwise specified. Trees shall be transported and handled with utmost care to ensure adequate protection against injury and desiccation. In addition, trunk protection shall be set, such that it provides ample protection for transit on flatbeds and handling in the installation contractor's yard. Trunk protection shall be set such that it will allow for the Municipal forester to move it for inspection purposes. Trunk protection should not be removed until after the tree is planted. When transported in closed vehicles, plants shall receive adequate ventilation to prevent sweating. When transported in open vehicles, plants shall be protected by tarpaulins or other suitable cover material. Balled and burlapped trees shall be set on the ground and balls covered with soil. Until planted, all materials shall be properly maintained and kept adequately watered.

All trees shall be dug to retain as many fibrous roots as possible. Balled and burlapped trees shall have a solid ball of earth of the minimum specified size (32 inches), securely held in place by untreated burlap and biodegradable rope (nylon rope is NOT acceptable). Oversize or exceptionally heavy trees are acceptable if the size of the ball or spread of roots is proportionally increased. Loose, broken, or manufactured balls are unacceptable. Size and grading standards shall conform to those of the *American Association of Nurserymen American Standard for Nursery Stock (ANSI Z60.1)*, 2014 Edition, unless otherwise specified.

**Form and Structure:** All trees shall be typical of their species or cultivar. They shall have normal, well-developed branches and a fibrous root system. They shall be sound, healthy, vigorous trees, free from defects, disfiguring knots, sunscald, injuries, abrasions of the bark, plant diseases, insect eggs, borers and all forms of infestations. All trees shall have a single, straight trunk, with leader intact (not all species have a leader but one must be present in those that do) and be branched at least five feet from the ground unless otherwise specified or approved by the Municipal forester.

**Provenance and Tree Size:** All trees shall be nursery grown in a USDA hardiness zone of 7B or lower (material collected from the wild is unacceptable), except with permission from Parks. Tree size shall be at least 2.5-inch caliper unless otherwise authorized by the City. All trees shall be tagged on site prior leaving the nursery and the tags shall remain affixed to the tree after the tree is planted.

**Dimensions:** Each tree shall be dimensioned as it stands in its natural position. Trees shall be calipered six (6) inches above ground. Trees furnished shall represent a fair average of the maximum and minimum caliper ranges. Trees furnished shall be delivered in the root ball size appropriate for the tree caliper based on species, trunk flares, or other tree-specific variables. The caliper of some species may exceed 3" or 4" caliper based on species, trunk flares or other tree-specific variables, but no tree shall be furnished that exceeds a root ball diameter of 32" for 2.5-3" caliper trees and 42" for 3.0-4" trees. In the case of root ball size discrepancies, the circumference of the top most ring of the root ball basket shall be taken and must be less than 103" for 2.0-2.5" trees, less than 110" or the tree shall be rejected

for 2.5-3" trees while 3.0-4" trees must have a circumference of less than 140". All trees must be "limbed up" to a minimum of 6 feet for street tree plantings. Permission may be granted for low-limbed trees under certain circumstances.

#### **II.B.4. Installation**

All tree installations shall be supervised by a Tree Specialist.

Remove all materials from the tree pit for the full length and width of the tree pit to the depth of the tree's root ball (Appendix B). For excavation of a lawn strip, excavate an area at least three times the diameter of the root ball in length by the width of the lawn strip (up to 3 times the diameter of the root ball), to the dimensions listed on the permit. Extreme care shall be taken to avoid excavation to a depth greater than required. The subgrade below the root ball shall be tamped slightly to prevent settlement. All ropes, stones, etc. shall be removed from the planting site before backfilling. All excavated materials shall be removed from the site and disposed of in an acceptable manner.

Place balled and organic burlapped material in the prepared planting pit by lifting and carrying it by the root ball so that the ball will not be loosened. The use of synthetic burlap is strictly prohibited. Set the tree straight and in the center of the pit. All trees shall sit, after settlement, with the base of the trunk and the beginning of the roots, known as the "trunk flare", level with the sidewalk grade. If the top of the root ball is not consistent with this area, the depth of the planting site should be adjusted by adding or removing soil below the root ball to make the trunk flare level with the sidewalk grade.

Cut and remove rope and wire basket from the root ball. Two thirds of the burlap and all of the wire baskets shall be removed from the tree pit. The remaining burlap should be adjusted to prevent the formation of air pockets. Backfilling mixture shall be loose, friable and not frozen. Soil shall be firmed at 6-to-8-inch intervals. All tree pits are to be filled with topsoil and made level with existing conditions.

Cultivate and rake over finished planting areas leaving them in an orderly condition. At no time should topsoil be mounded to cover the trunk of the tree. The trunk flare shall always be visible. The final soil level shall be flush with the surrounding sidewalk grade to prevent potential tripping hazard.

Soil is often too high over the root flare as a result of digging at the nursery. This soil should be removed to expose the root flare (root collar) at the time of planting, before backfilling. The photo below shows soil lines above the root flare as well as the possible issues from not correcting the problem or removing the wire basket.

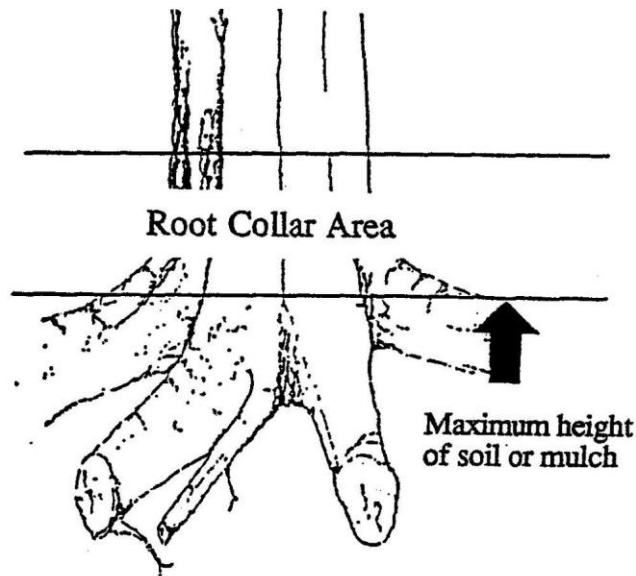


Figure 1

The root flare or root collar is the area of the tree where the trunk begins to flare out into the roots. The images on the previous page show where to find the root flare on a tree. Every tree planted should have the root flare even with the sidewalk outside the tree bed, with the root flare just visible as in the picture on the next page with the green line.

#### II.B.5. Tree Wrap

No tree trunks shall be wrapped after planting. Remove all protective wrapping once the tree has been planted.

#### II.B.6. Backfill

Material shall consist of natural loam topsoil. Topsoil must be free from subsoil, obtained from an area, which has never been stripped. It shall be removed to a depth of one foot or less if subsoil is encountered. Topsoil shall be of uniform quality, free from hard clods, stiff clay, hardpan, sods, particularly disintegrated stone, lime, cement, ashes, slag, concrete, tar residues, tarred paper, boards, chips, sticks or any other undesirable material. Topsoil shall meet the following requirements:

- a. *Organic Matter.* Backfill shall contain between 5%-12% organic matter.
- b. *pH.* The pH shall be in the range of 6.0 to 7.0 inclusive, unless otherwise approved or specified by the Municipal forester.
- c. *Soil Textural Analysis.* Topsoil shall consist of the following percentages of sand, silt and clay. Any soil that does not meet the requirements below will be rejected and removed from the site.

Rocks, Stone and Gravel (>2.0 mm)	<5%
Sand (0.05-2 mm)	40%-60%
Silt (0.002-0.05 mm)	20%-50%
Clay (<0.002 mm)	20% Maximum

- d. When the topsoil complies with the requirements of the specification but shows a deficiency of not more than one percent in organic matter, it may be incorporated when and as permitted by the Municipal forester.
- e. Electrical conductivity shall be a maximum of 1.5. mmhos/cm. A higher level would indicate that the salt content is too high to be acceptable, and the soil must be removed from the site by the permit holder.

The City may require that soil be changed at the expense of the applicant and/or the tree work entity if the soil does not appear to meet City specifications. It is the applicant's responsibility to prove that the soil used meets City specifications. The applicant may provide a report from an approved lab showing a passing soil sample if they wish to show that their soil meets City specifications. The soil should be tested for the following: nutrients, pH, soluble salt level, organic matter content, percentages of sand/silt/clay, soil textural class, gravel content, + Extra Sieve ¼. The choice of lab must be approved in advance by the appropriate Municipal Forester, and soil samples must be taken by a Municipal Forester or their designate, and delivered to the lab by the Municipal forester or their designate. Only a passing sample acceptable to the Municipal Forester will exempt the applicant from having to replace the soil.

#### **II.B.7. Staking**

All staking shall be done during the planting operation and shall be maintained throughout the first year of the 2-year guarantee period. After the first year, the stakes must be removed by the installation contractor.

Stakes shall be of white cedar or similar wood with or without bark attached and shall show no sign of cracking or decay. Dimensional lumber is not an acceptable material for staking. They shall have a maximum allowable deflection of ten percent (10%). Stakes shall be cut even so they are the same height. All trees shall be supported by 2 stakes, they shall be 8 feet long; the diameter at the middle shall be not less than 2 inches nor more than 2 ¾ inches and the diameter at the butt shall not exceed 3 inches. Stakes shall be placed outside of the root ball, driven 30 inches into the ground, and shall be fastened loosely with two opposing straps to the tree with a suitable length of ¾" wide, flat, woven polypropylene material that is knotted around the tree stakes (Appendix B). Metal wire is not an acceptable fastener.

Unless otherwise directed, trees shall be staked as shown on the plans and in accordance with these specifications. Stakes shall be set parallel to curbs. Trees shall stand plumb after staking. Stakes and wide, flat, woven polypropylene material shall be removed at the end of the first year of the 2-year guarantee period by the installation contractor or property owner, unless directed otherwise by the Municipal forester. At the time, the stakes are removed any holes left by the stake shall be filled with topsoil of the same quality as that specified in 2.B.6. Backfill.

#### **II.B.8. Watering**

Soil shall be firmed at 6-8 inch intervals and thoroughly settled with water. At the time of planting, the soil around each tree shall be thoroughly saturated with at least 20 gallons (20 gal) of water. Water shall be free from oil, have a pH not less than 6.0 nor greater than 8.0 and shall be free from impurities injurious to vegetation. Water may be drawn from mains owned by or supplying water to the City of Jersey City. Please contact DPW for an access permit.

Water shall not be applied in a manner which damages plants, stakes, or adjacent areas. Each tree bed shall be watered evenly in a manner which does not erode the soil or mulch. Watering shall not cause uprooting or exposure of plant roots to the air. Tree beds should be watered entirely, not just the area of the root ball. Water should not be directly applied to the tree trunk or leaves as this is detrimental to the tree's health. Washout of mulch or other damages resulting from these operations shall be immediately repaired at the expense of the applicant.

If conditions do not allow the use of Jersey City water sources, the applicant must obtain their own source of water. Twenty gallons of water shall be used on each new tree unless otherwise specified by the Municipal forester. The water shall be placed throughout the entire tree bed and not just in the immediate area of the root ball.

#### II.B.9. Mulching

Shredded bark mulch shall be applied as a ground cover to the surface of all planting beds at the time of planting and again after the tree stakes have been removed, one year after planting. Wood chips and any artificial or inorganic mulch are not acceptable.

Shredded bark mulch shall be applied to a uniform depth of 2 to 3 inches and shall be so distributed as to create a smooth, level cover over the exposed soil. A gap of approximately 2 inches should be left between the mulch and the trunk of the tree to avoid mounding above the trunk flare.

The applicant shall furnish and place Shredded Bark Mulch in accordance with the plans, specifications and directions of the Municipal forester. All mulching shall be done during planting operation.

Shredded Bark Mulch shall be a natural forest product composed of shredded bark or wood not exceeding 3 inches in length and 1 inch width. Mulch shall be derived from tree material, not from wood waste or by-products like sawdust, shredded palettes, or other debris. Mulch shall be natural in color and not dyed. It shall be of a uniform grade with no additives or any other treatment. Mulch with leaves, twigs, and/or debris shall not be acceptable.

Shredded Bark Mulch shall be applied as a ground cover to the surface of all planting beds at the time of planting, one year after planting when the tree stakes are removed, at the start of each watering season during the 2-year guarantee period and when the tree is watered when directed by the Municipal forester. Shredded Bark Mulch shall be applied to a uniform depth of 3 inches and shall be so distributed as to create a smooth, level cover over the exposed soil. A gap of approximately 2 inches should be left between the Shredded Bark Mulch and the trunk of the tree to avoid mounding above the trunk flare.

## II.C. FINISHING & SURFACE TREATMENTS

### II.C.1. Permeable or Porous Pavement

The City encourages the use of permeable or porous pavement in between tree pits where appropriate to increase the amount of water available to trees and to assist in stormwater capture and management. The proposed use of permeable or porous pavement must be noted in the permit application.

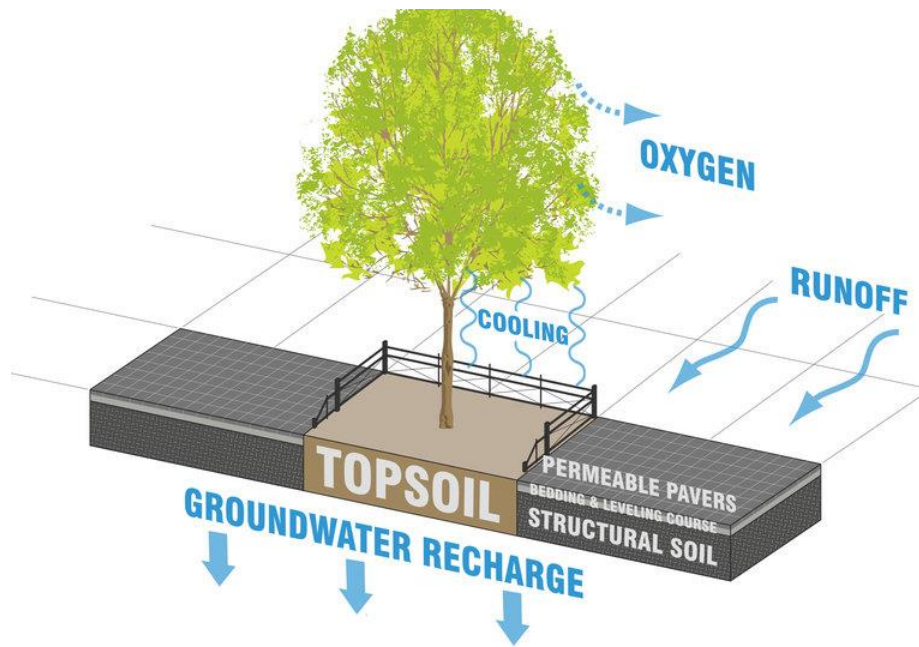


Figure 2

### II.C.2. Tree Pit Guards

Tree pit guards may be required by the City at the discretion of the Municipal Forester. A tree pit guard is usually a cast-iron fence or wrought iron wickets, installed around a tree pit for protection. The City recommends a low cast-iron fence or wrought-iron wickets that is 18 inches high. Tree guard posts shall be solid steel or reinforced aluminum. Tree guards must be three sided leaving the street side open and should not be embedded into concrete. The guards will protect the tree from dogs and pedestrians and give it enough space to grow for many years to come.

The City has standardized and approved designs which are encouraged for all tree guard installations (Appendix D). Alternative designs may be approved on a case-by-case basis and must be three-sided, approximately 18 inches tall, with no sharp points, installed on the outer perimeter of the tree pit, and positioned at least one foot short of the curb with the curbside open. Solid walls are not permissible. Water must be able to flow into the tree bed on all sides. The applicant takes full responsibility for maintaining the tree guard in a safe condition. If the condition of the tree guard is not maintained in a safe condition the tree guard will be removed by the City. Interested parties should apply for a permit to 'Install Tree Guard' before installing a tree guard. The permit is to 'Install Tree Guard'.

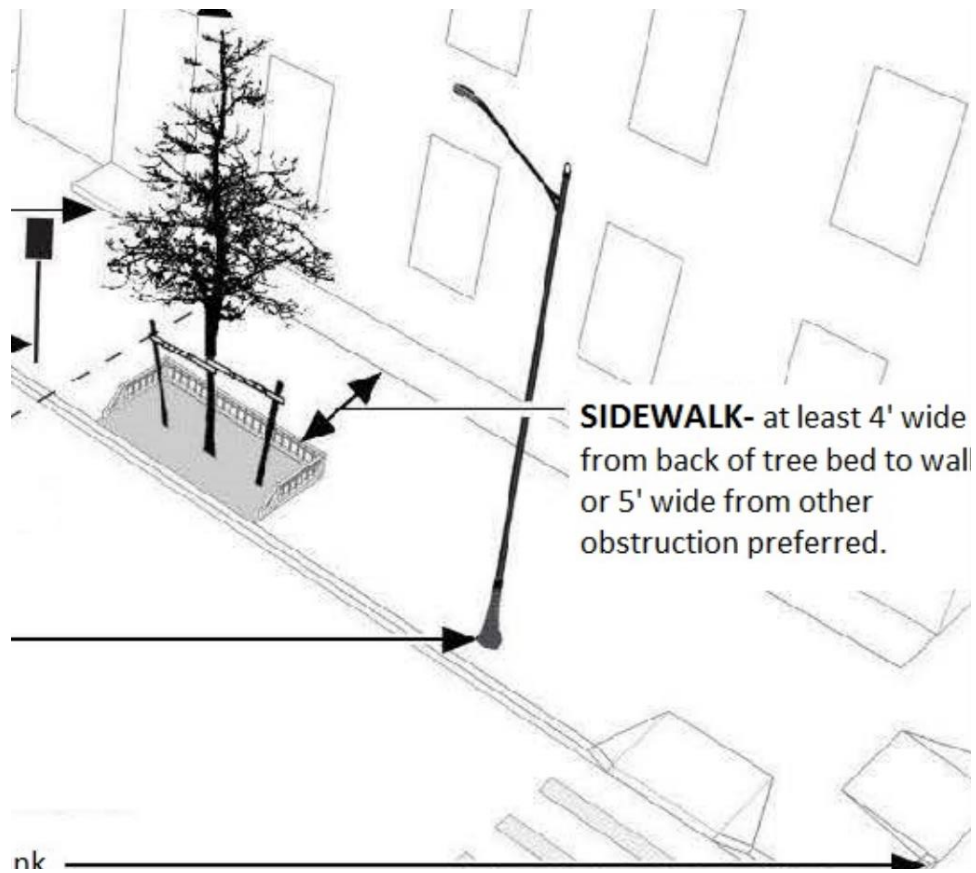


Figure 3

### II.C.3. Tree Grates

Sidewalk-level tree grates are not permitted. Tree grates restrict tree growth and present tripping hazards to the public. The City strongly encourages all members of the public to report problematic existing tree grates to the City via SeeClickFix by visiting <https://seeclickfix.com/jersey-city> with a web browser or by contacting the Resident Response Center.

### II.C.4. Pavers (paving blocks)

Pavers, bricks or other nonporous materials are not to be used within exposed planting area without express written permission from the City.

Any type of material or barrier installed in a tree pit must be approved by the City. See Appendix D.

### II.C.5 Plants

Flowers and plants approved by the City may be planted in tree pits after the Guarantee Period of the tree has expired. All flowers planted in a tree pit must be non-toxic to humans and pets. For a list of plants approved by the City please see [Tree Care Tips - Planting : NYC Parks \(nycgovparks.org\)](https://www.nycgovparks.org/trees/tree-care/planting), <https://www.nycgovparks.org/trees/tree-care/planting>.

Due to the competition with trees for water, vines and shrubs are strictly prohibited from being planted in tree pits.

## **II.D. (RESERVED)**

## **II.E. GUARANTEE PERIOD**

All trees must be guaranteed for 2 years. All applicants and tree work entities listed on a permit shall provide a guarantee for the trees planted. Applicants are advised to ensure that their tree work entity provides a guarantee otherwise the applicant will be held liable under the permit for replacing the tree.

## **II.F. TREE REPLACEMENT FOR PRIVATE PLANTINGS**

Upon a finding of the City, any tree planted in the Public Right-of-Way that is dead or in an unhealthy or unsightly condition, and/or has lost its natural shape due to dead branches, excessive pruning, inadequate or improper maintenance, or other causes including vandalism, within the two-year guarantee period shall be removed and replaced by the permittee in the next planting season. Where dead trees have been identified, whether due to natural causes or vandalism, the dead material shall be removed, including stakes, and wide, flat, woven polypropylene material within 30 days of notification. When necessary, topsoil, grass seed or appropriate paving material shall be added to the pit to eliminate potential tripping hazards at the time of removal. Documentation must be submitted to Parks showing the proper removal of trees. A renewed permit must be obtained to replant during the next planting season. The topsoil in the tree pit shall be changed when any replacement tree is planted.

### **II.F.1. Tree Valuation:**

*Jersey City determines the value of street trees based on their caliper.*

Jersey City's urban forest is integral to the health, beauty, and vitality of the city and its residents. Tree canopy cleans the air, cools streets, reduces storm water runoff, beautifies neighborhoods, and enhance property values. Damage to trees in urban spaces can occur a myriad of human impacts such as vandalism, improper pruning, concrete addition and sidewalk repair, general construction, vehicular damage, dumping, etc. The key to a healthy urban forest is the preservation and protection of each and every tree comprising the forest canopy, and reduction in tree canopy from tree damage or removal leads to a similar reduction in the benefits conferred by that canopy. This tree valuation methodology reflects the unique importance of urban tree canopy to Jersey City [1].

For every 2.5 inches of caliper of a removed, vandalized, or irreparably damaged City tree, one new tree must take its place in accordance with the approved species list and subject to City approval. If when calculating the number of new trees you get a fraction, round up. Refer to the chart below for more information.

### **II.F.1.a. Tree Jurisdiction and Tree Replacement Laws**

City Trees are those planted on any City property, in our parks and in the public right-of-way fall. These trees are under the jurisdiction of The City of Jersey City. Trees growing on private property or other government land and are not subject to Jersey City protection regulations [2].

### **II.F.1.b. Why Trees Matter**

Trees are a public good with aesthetic, environmental and economic value. Trees reduce energy demands by shading streets and buildings from the sun and lowering temperatures. This is particularly important in dense urban spaces like Jersey City, where temperatures are warmer than on average for surrounding areas. Trees also filter the air and produce oxygen. Trees absorb pollutants and greenhouse gases and capture particulate matter in their leaves. This is also especially important in Jersey City where air quality and asthma rates are high. Trees and tree beds also play a key role in mitigating storm water runoff, improving water quality and lessening the burden on the City sewer system. Healthy mature trees remove approximately 70 times more air pollution each year than a small newly planted tree [3].

### **II.F.1.c. Jersey City Tree Valuation Method**

Tree appraisal is a way to establish a monetary value for the loss associated with the damage or destruction of a tree. Jersey City applies a methodology for tree appraisal established by the New York City Parks Department that has been adapted from the International Society of Arboriculture (ISA) to assess trees under its jurisdiction that require removal. As described in the ISA's Guide for Plant Appraisal, 9th edition, the Trunk Formula method establishes the monetary value of the tree based on its size (as measured by the cross-sectional area of the trunk) and then adjusts for the tree's condition, species, and location.

#### **1. CONDITION**

The condition is established by a series of field observations made by a certified Arborist. The condition is rated according to the following:

- a) The structure and health of tree roots
- b) The structure and health of the tree trunk
- c) The structure and health of the tree's large branches
- d) The health of the tree's small branches and twigs
- e) The health of its foliage and/or buds

#### **2. SPECIES FACTOR**

According to the ISA Trunk Formula method, species ratings vary regionally and geographically and should be based on species characteristics without regard to a plant's condition or location factors. The ISA method refers appraisers to scores that may be established by regional organizations, such as tree boards or arboricultural societies. In the species rating criteria, Jersey City will use the rating system used by The NYC Parks Department as applied to trees under their jurisdiction in New York City, which is considered a distinct climatic, biophysical, economic, demographic, and structural entity with environmental and public health challenges not typical of the suburban or ex-urban experience. These characteristics mimic conditions in Jersey City, a dense and diverse urban City existing just on the other side of the Hudson River.

The species rating system reflects the value of tree species in terms of the magnitude and longevity of the services and benefits they provide in the City. The magnitude of a tree's benefits relates to the size of its tree canopy. Magnitude and longevity are measured by

- a) Tree stature (canopy size) at maturity
- b) Expected tree life span

Each species is assigned to a large-, medium-, and small-statured category according to the height expectations for a typical example of the species. Each species is also assigned to a short-, medium-, or long-lived category, again according to what is typical for that species. Species ratings are as follows based on the combination of categories that each species falls into.

[see Appendix C for list of species]:

Stature (at maturity)	Longevity	Rating (%)	Examples
Large	Long	100	Oak, sycamore, elm, hickory, ginkgo, sweetgum
Large	Medium	95	Horse chestnut, ash, linden, birch, honey-locust
Medium	Long	95	Southern magnolia, yellowwood
Large	Short	90	Ailanthus, willow, poplar, silver maple, Siberian elm
Medium	Medium	90	Hornbeam, white mulberry, Sophora
Small	Long	90	Yew, holly
Medium	Short	85	Japanese snowdrop (styrax), Callery pear
Small	Medium	80	Dogwood, hawthorn, goldenrain tree, crabapple
Small	Short	80	Flowering plum, cherry, hawthorn, redbud

(Tree Species Ratings for New York State. Guidebook prepared by the Shade Tree Evaluation Committee, 1995. An official publication of the New York State Arborists ISA Chapter, Inc., page 1.)

### **3. LOCATION FACTOR**

The last component of the ISA Trunk Formula method is location. In the ISA formula, the **Location Factor (LF)** is the average of **the Site Rating (SR)**, the Contribution Rating (CR), and the **Placement Rating (PR)**. Per the NYC Parks valuation method, due to the fact that the Species factor already includes a measure of benefits based on size and longevity, Jersey City will also not include the Contribution Rating. The adapted Location factor valuation formula:

$$LF = SR + PR / 2$$

SR = a measure of the real-estate value and attractiveness of the neighborhood as judged by the arboricultural appraiser. The appraiser measures the qualities of the site in terms of the tree’s biological, physical, and chemical (i.e. soil and nutrients) requirements [see Table 1 below], and

PR = a measure of the functional and aesthetic efficacy of a tree as described on a 10 to 100% scale by the arboricultural appraiser.

**SITE RATING:** Sometimes a tree is the only beneficial feature in an otherwise undesirable area. In Jersey City, it may be common to see a stately, mature pin oak or London plane tree growing in the sidewalk in front of a vacant lot, along a highway shoulder, or as the single, magnificent tree on an otherwise treeless block in a very modest neighborhood. It is equally likely in Jersey City to see a tree and a

neighborhood both struggling, but neither struggle should devalue the other, and both, given time, may ultimately be successful. The **Site Rating** in the **Location Factor** should not devalue a tree based on arbitrary judgment of how attractive, expensive, successful, functioning, or well-maintained an area seems. Instead, it will function as a measure of how well the site can support successful tree growth within the understanding that all urban locations are challenging for a tree’s biological functioning.

Table 1. Site Rating matrix.

The more suited a tree is to its growing environment, and the more conducive the area is to tree growth, the higher the site rating.

Site Rating Type Scoring Range (%) Suggested Criteria

Site Rating Type	Scoring Range (%)	Criteria
High	100-90	1. The site is in a park or landscaped area with ample belowground and overhead growing space
		2. The site is in the street but there is enough above and below ground space, either currently or with moderate adjustment to existing infrastructure (such as enlarging a tree pit, ramping or curving a sidewalk, or moving location of a fence or street signage, etc.) to support the tree
		3. The species is tolerant of the site’s difficult growing conditions
		4. The site is physically limiting to the tree, but the tree’s stature is appropriate for current adjacent infrastructure (small stature under utility wires or next to a building or retaining wall, for example)
		5. The tree has minor conflicts with existing site infrastructure that can be remedied by mild or moderate corrective pruning (such as a tree branch touching a building, house tap, etc.)
		6. The site contains few targets and the tree is of a structurally sound species
Medium	70-90	1. Physical space limitations at the site will challenge the success of the tree over time
		2. The species is only moderately tolerant of the site’s difficult growing conditions
		3. The tree has moderate conflicts with existing site infrastructure that require redesign or realignment of this infrastructure
		4. Site has a lesser degree of the suggested criteria in the High rating type
Low	70-20	1. The species is intolerant of the site’s difficult growing conditions

		2. The tree’s stature is inappropriate for adjacent current site infrastructure (large tree under utility wires, or too close to a building foundation, for example)
		3. The tree has major conflicts with existing site infrastructure that cannot be remedied without elimination of the infrastructure or drastic reduction or elimination of the tree (such as a sidewalk without the possibility of ADA clearance, a completely blocked traffic signal, a deteriorating building foundation or retaining wall, etc.)
		4. The site contains many targets and the tree is of a structurally weak species

Table 1

**4. PLACEMENT RATING (%):**

The Placement Rating is an assessment of a tree’s placement in its surrounding landscape, both in terms of its positioning and its contextual relationships. Table 2. Placement Rating matrix. A higher score reflects a higher aesthetic and function.

Placement Rating Type	Scoring Range (%)	Suggested Criteria
High	100-90	1. The tree is a native species in or adjacent to a natural area or large park
		2. The tree is a historic specimen or part of a grove, or is an original planting in historic landscape
		3. The tree is the only, or one of a few, in the area
		4. The tree is extremely complimentary to or prominent within an adjacent view, land use, structure, or natural landscape element
		5. The tree is very important within a group of other plantings, such as an allée or along an even-aged block, and its loss would be of high impact to that planting group
		7. The tree provides exceptional services based on its location (i.e. shade in a playground or sitting area, property value in front of a building, storm water absorption in or near a wetland, etc.)
Medium	90-70	1. The tree is one of a group of plantings and its individual loss would have minimal visual or environmental impact on the entire group

		2. Tree has a lesser degree of the suggested criteria in the High rating type
Low	70-20 (20% for invasive Species)	1. The tree is an invasive species in or adjacent to a natural area or large park
		2. The tree currently or has the potential to block a view integral to the importance of the site, or otherwise impede a design intent of historical significance
		3. The tree has a very high nuisance factor

Table 2

The Jersey City tree appraisal method establishes the maximum value of the tree based on its size, and then takes deductions, if required, based on the tree’s condition, species, and location. The tree’s combined score in these categories establishes the amount of the deductions. The departures from the method as described in the Guide leads to the development of a local—as opposed to regional—scoring system for the species, as well as a customization of the Location Factor.

Sources:

- 1) [HOW DO WE CALCULATE THE DAMAGE TO PARK TREES \(nycgovparks.org\)](http://nycgovparks.org)
- 2) Jersey City Forestry Standards
- 3) Nowak, DJ. 1994d. Air pollution removal by Chicago’s urban forest. In: McPherson, EG, Nowak, DJ, and RA Rowntree. Chicago’s Urban Forest Ecosystem: Results of the Chicago Urban Forest Climate Project. USDA Forest Service General Technical Report NE-186. Pp. 63-81.

In circumstances where the replacement cost of a tree shall exceed \$2,000, the City may pursue all legal remedies available in the Hudson County Superior Court.

**II.G. TREE PROTECTIONS**

Any and all trees that fall within the jurisdiction of the City are protected by law from any and all damage thereto including but not limited to any incidental damages, damage to the canopy, or damage to the trunk or root zone during and in the course of any and all construction activities, and also the aftermath of any and all construction activities.

Any and all construction work performed within 30 feet or within the drip line, whichever is greater, of a city tree must possess a permit issued by the City of Jersey City to avoid unsafe, hazardous and other conditions which may be detrimental or potentially detrimental to any city tree. Contractor is responsible for obtaining all necessary permits to comply with regulations. This includes utility, sidewalk, pruning, or any other work within the drip line of a tree (within the city right of way) done by the general contractor or any subcontractors. Contractor must be familiar with, and follow the City planting and forestry specifications. Contractor will contact the City if any underground infrastructure (gas, water/electric etc.) affects any proposed/existing trees onsite. Applicant shall notify the City and submit required documentation for permit at least 10 business days prior to the commencement of any work requiring a permit.

Temporary wooden tree guards shall be installed immediately around each tree impacted by demolition and/or construction and maintained throughout the course of the entire demolition and construction process. Details for temporary wooden tree guards can be found in Appendix B.

Preparatory pruning work shall be performed only when directed by a Tree Specialist. This work shall be performed in accordance with ANSI a300 standards and by a qualified, licensed & insured arborist or tree service company. Contractor is to follow all City permit & work order regulations. Contractor is responsible for scheduling the appointment with a Tree Specialist.

When a deficiency in tree protection is determined by a Tree Specialist it must be remedied immediately. Any damage to existing trees during construction shall be the contractor's responsibility. The contractor shall perform remedial work to damaged trees at the contractor's expense; this work shall meet all City regulations.

Any violation of any of the above may result in a stop work order and/or the issuance of additional violations. Work shall not re-commence until conditions are in compliance with City standards.

To best protect the critical root zone, contractors must adhere to the following guidelines:

1. The contractor shall take extreme care to protect the root systems of the existing trees. Bulk material, equipment, scaffold footings, or vehicles shall not be stockpiled or parked within the drip line of any tree. This is done to minimize surface and subsurface root and soil compaction. This applies to all tree drip lines within or outside the project limit line.
2. To best protect tree roots the contractor shall exercise extreme care in removing concrete or asphalt within the drip line of existing trees. Pavement should be lifted rather than dragged. Any work within the drip line of a street tree must get approval from the City of Jersey City. The excavation area within the drip line shall be backfilled immediately.
3. If roots are to be exposed for a period greater than forty-eight (48)-hours, the exposed area shall be covered with at least six (6)-inches of mulch and maintained moist during the course of construction until the area can be properly backfilled. No runoff or spillage of noxious materials while mixing, placing, or storing construction material shall occur within the tree pit or drip line. No ponding, eroding, or excessive wetting caused by dewatering operations shall occur within tree pit.
4. Unless otherwise noted it is best to keep existing concrete within tree protection zone as long as possible until removal and reinstallation of new sidewalk. Concrete should be left intact throughout the demolition and construction process to prevent further soil compaction on existing tree roots. Other work may be specified by a Tree Specialist to be done within a prescribed timeframe. Metal grates are to be removed immediately. Cobblestones are to be removed immediately and the void created is to be amended with soil level to the sidewalk. Pit expansion may be required by a Tree Specialist.

## **II.H. PRIVATE CONTRACTORS**

All contractors working in the City of Jersey City must adhere to all local and state laws regulating business and the tree care industry. Contractors working on public and private property with regard to trees are subject to the [New Jersey "Tree Specialists and Tree Care Operators Licensing Act](#). Contractors working on City trees will need to have an approved permit and permit work order from the City of Jersey City with them on the job site at all times.

Contractors performing work on or within 15 feet of a City tree will be required to go through the permitting process. Failure to do so may result in fines and/or restitution for any damages that may occur as a result of the work.

## **II.I. BIOSWALES / GREEN INFRASTRUCTURE**

Bioswales and other forms of green infrastructure installed on the right-of-way help collect and manage stormwater runoff from streets and sidewalks by directing stormwater to engineered systems that typically feature soils, stones, and vegetation. For green infrastructure projects installed as part of a private development project, the design and maintenance provisions shall be facilitated through the Planning Board or Zoning Board of Adjustment approval process.

## **II.J. HISTORIC DISTRICT STANDARDS**

Street trees contribute to the special integrity and character of historic districts, and great care should be used in their proper selection and placement in order to enhance the existing historic integrity of the streetscape.

Tree plantings in the City's Historic Districts should respect the existing built environment, by considering a tree's growth habits and compatibility with surrounding historic buildings and conditions. It is also important to consider that sometimes even the sidewalk materials fronting a property are themselves historic fabric, which should be preserved.

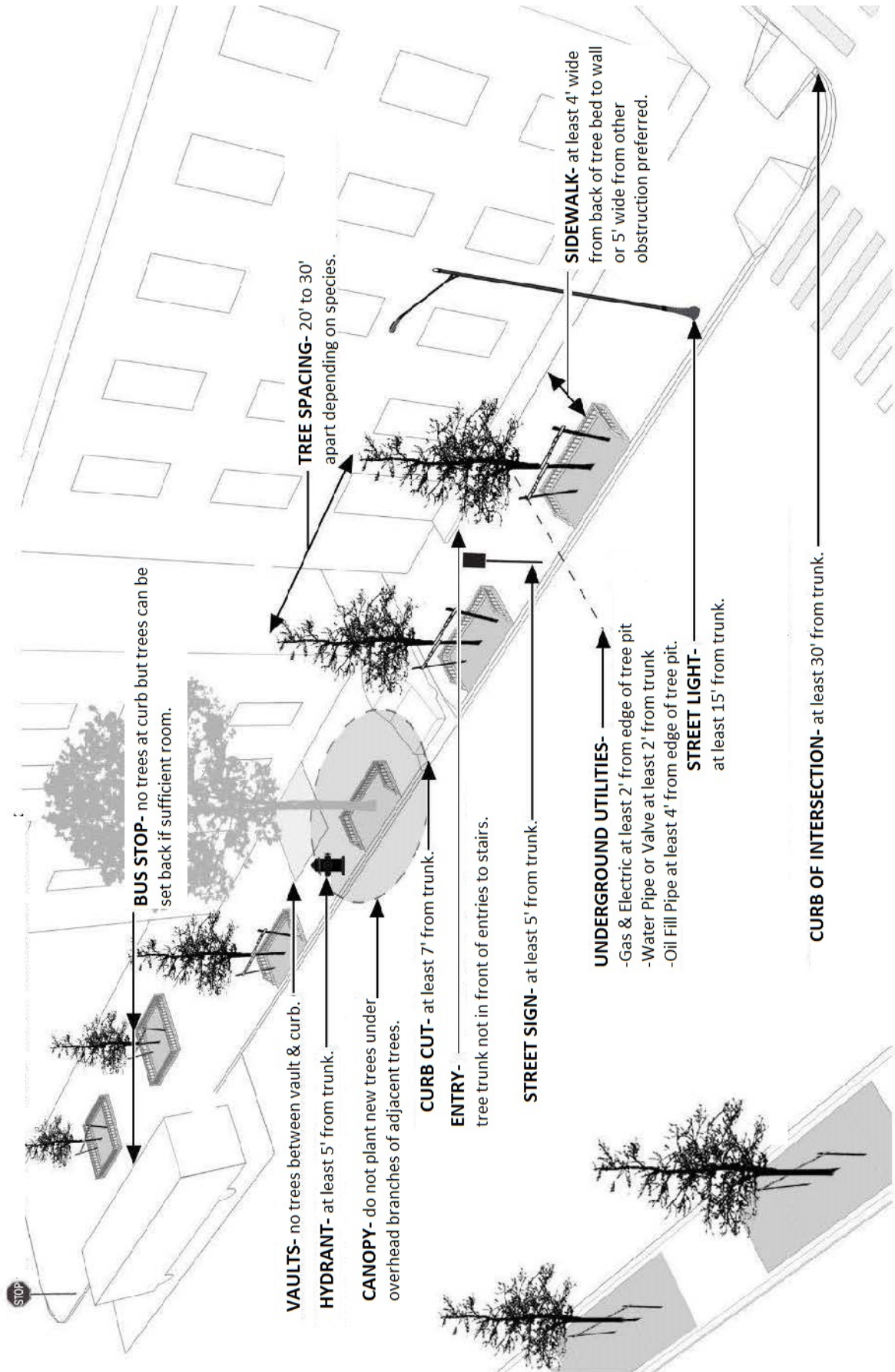
The Jersey City Historic Preservation Commission requires that existing, historic, bluestone sidewalks be preserved and maintained; however, in order to enable the restoration of the historic tree canopy the Commission encourages the removal of broken bluestone slabs or the removal and storage of entire bluestone slabs for the installation of street trees. Large intact units of bluestone should never be removed and discarded but should be stored for possible re-use. The commission never recommends the cutting of bluestone into small pieces or modifying existing rectilinear pieces to accommodate a tree. Working with the existing sidewalk pattern, whether it be bluestone or concrete is the preferred and most appropriate recommendation for plotting out tree pits when possible and practical.

Nineteenth century historic districts typically have narrower sidewalk widths than more modern developments that may require alternative tree pit configurations than those established in the Forestry Standards (please see above Section II.A.2. Tree Pit Dimensions). Some creativity and on-site decision-making may be necessary to ensure the proper placement of a tree to encourage its growth and to provide safe pedestrian access. If conditions allow, sidewalks 9 feet in width should install a 4 foot by 12 foot tree pit with a 4 foot by 6 foot exposed planting area and sidewalks 8 feet to 9 feet wide should follow the narrow tree pit specs.

Appropriate trees are indicated in the recommended tree species list in Sections II.A.2. and Section II.C.1. The recommended tree pit guard such as a hoop or double hoop design or an appropriate compatible custom design, based on historic evidence is permitted and encouraged in most situations. All sidewalk alterations to accommodate or add tree pits shall be done in consultation with the HPC, as required in Chapter 345, Article III, Section 30 of the City Land Development Ordinance, and all street tree plantings shall be completed in consultation with and overseen by the Forester.

# Appendix A: Street Tree Spacing Details

## Street Tree Spacing Guidelines



# Appendix B: Standard Tree Planting Details

GENERAL PLANTING NOTES:

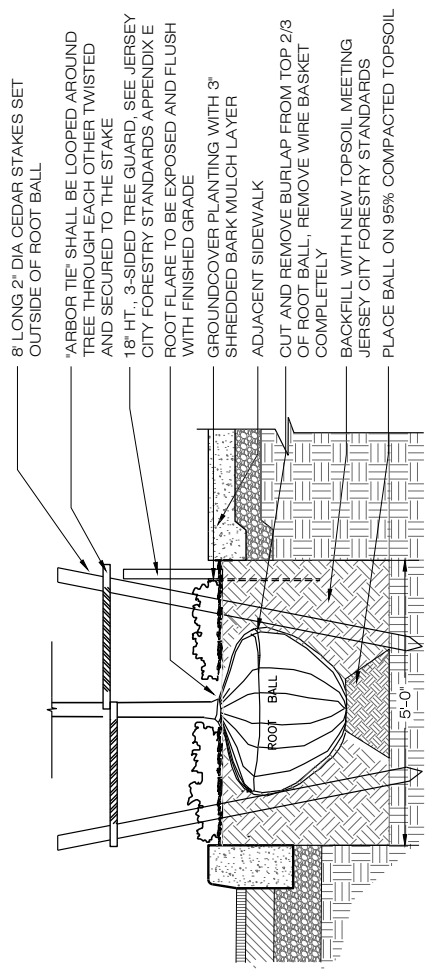
1. ALL PLANTS TO BE SELECTED AND SEALED IN THE FIELD BY THE CITY REPRESENTATIVE.
2. FINAL LOCATION OF ALL PLANTS TO BE DETERMINED IN THE FIELD BY THE CITY REPRESENTATIVE.
3. CONTRACTOR SHALL INSTALL A PORTION OF THE LANDSCAPING CONSISTING OF NOT MORE THAN 5% OF THE TOTAL PLANTINGS, TO DEMONSTRATE PLANTING PRACTICES TO THE CITY REPRESENTATIVE, PRIOR TO INSTALLING THE REMAINDER OF THE PLANT MATERIAL.
4. ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 3" LAYER OF SHREDDED BARK MULCH.
5. TOPSOIL SHALL BE SANDY LOAM; FREE FROM SUBSOIL, STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL; CONTAIN 5%-12% ORGANIC MATTER, pH 6.0 TO 7.0, SEE BACK FILL REQUIREMENTS, JERSEY CITY FORESTRY STANDARDS.
6. TOPSOIL SHALL COMPLY WITH ANY AND ALL ENVIRONMENTAL AND CLEAN FILL REQUIREMENTS, TO THE SATISFACTION OF THE ENVIRONMENTAL CONSULTANT.
7. CUT AND REMOVE BURLAP FROM TOP 2/3 OF BALL AND REMOVE WIRE BASKET COMPLETELY. NYLON ROPE AND/OR NYLON BALLING MATERIAL IS NOT ACCEPTABLE.
8. LOCATE GUY WIRES SO THAT THEY WILL NOT PULL CROUCH APART.
9. UPON COMPLETION OF THE FIRST YEAR OF THE TWO (2) YEAR PLANT GUARANTEE PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING OR REMOVING ALL STAKES. THIS SHALL BE DONE IN CONSULTATION WITH THE CITY REPRESENTATIVE. ALL STAKES REMAINING SHALL THEN BECOME THE RESPONSIBILITY OF THE OWNER.
10. IF THERE IS A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE PLANT LIST AND THE PLANTING GRAPHIC, THE GRAPHIC SHALL TAKE PRECEDENCE.
11. IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
12. PLANT PERENNIALS AND GROUNDCOVER IN 8" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS. PLANT BULBS IN NATURALIZED DRIFTS.
13. TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL DISTURBANCES, CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT.
14. ALL EXISTING SOIL SHALL BE REMOVED AND BACK FILLED WITH NEW TOPSOIL MEETING PARKS AND FORESTRY SPECIFICATION.
15. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMENS AMERICAN STANDARD FOR NURSERY STOCK.
16. ALL PLANT BEDS ARE TO BE SEPARATED FROM LAWN AREA WITH A 3" DEEP V-TRENCH.
17. KEEP MULCH 1/2" BELOW TOP OF PAVEMENTS AND CURBS.
18. ALL LANDSCAPING SHALL BE IN A HEALTHY AND VIGOROUS GROWING CONDITION AT THE TIME OF INSTALLATION. NO PLANT SHALL REMAIN AT THE SITE FOR MORE THAN THREE (3) DAYS AFTER DELIVERY WITHOUT BEING PROPERLY HEALED IN. NO TREE WITH A DAMAGED CENTRAL LEADER SHALL RECEIVE FINAL ACCEPTANCE.
19. ALL NEWLY INSTALLED LANDSCAPING SHALL BE SET PLUMB IN THE PLANTING PIT AND BACKFILLED IN LIFTS NOT TO EXCEED EIGHT(8) INCHES. IN PLANTING BEDS BACKFILL SHALL CONSIST OF THREE(3) PARTS NATIVE TOPSOIL, THREE(3) PARTS SCREENED TOPSOIL AND THREE(3) PARTS PEAT. A MOISTURE ABSORBENT POLYMER SHALL BE INCLUDED IN THE AMENDED BACKFILL ON WELL AND EXCESSIVELY DRAINED SOILS AND ON EARTHEN BERMS TO ENSURE SOIL MOISTURE AVAILABILITY. ALL LANDSCAPE BEDS SHALL BE UNDERPLAYED WITH A SUITABLE WATER PERMEABLE WEED FABRIC AND SHALL RECEIVE A MINIMUM THREE (3) INCH APPLICATION OF SHREDDED HARD WOOD MULCH OR OTHER ACCEPTABLE MATERIAL. UNTREATED WOOD CHIPS SHALL NOT BE USED. PLANT MATERIAL ARRANGED IN GROUPINGS SHALL BE CONTAINED IN ONE(1) CONTINUOUS MULCHED BED TO REDUCE POSSIBLE PLANT DAMAGE CAUSED BY MAINTENANCE EQUIP. THE LANDSCAPE BED SHALL EXTEND TO THE BRANCH LIMITS OF THE NEWLY INSTALLED PLANTINGS.
20. PLANT MATERIAL CONSIDERED TO BE A FALL DIG HAZARD SHALL NOT BE DUG BETWEEN OCTOBER 1ST AND DECEMBER 1ST. FALL DIG HAZARD PLANTS MAY BE PLANTED DURING THIS TIME FRAME, PROVIDED THEY HAVE BEEN DUG PRIOR TO OCTOBER 1ST, OR ARE CONTAINER GROWN.
21. THE CLASSIFICATION OF A SPECIES AS A FALL DIG HAZARD SHALL NOT BE CONSIDERED A SUFFICIENT OR ACCEPTABLE REASON FOR SUBSTITUTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE PROCUREMENT OF PLANT MATERIAL AS REQUIRED TO MEET THE CONSTRUCTION SCHEDULE, AND FOR ENSURING THE SURVIVAL AND CONTINUED HEALTH OF THE PLANT MATERIAL, ONCE IT IS DELIVERED.

22. WATERING MUST TAKE PLACE THROUGHOUT THE 2 YEAR PERIOD, AT LEAST 20 GALLONS AT APPROXIMATELY TWO WEEK INTERVALS FROM MAY 15 TO OCTOBER 31. CONTRACTOR MAY NEED TO INCREASE OR REDUCE THE FREQUENCY OF WATERING BASED ON WEATHER CONDITIONS, RESULTING SOIL WATER CONTENT OR OTHER FACTORS.
23. EXISTING TREES TO REMAIN MAY BE PRUNED TO ACCOMMODATE CONSTRUCTION ACTIVITIES. CARE SHALL BE TAKEN TO AVOID NEGATIVELY IMPACTING THE HEALTH OR STRUCTURAL INTEGRITY OF THE TREE. PRUNING SHALL BE DONE UNDER THE DIRECTION OF A CERTIFIED NEW JERSEY TREE EXPERT.
24. NO SOIL DISTURBANCE SHALL OCCUR OUTSIDE THE LIMIT OF DISTURBANCE.
25. SHADE TREES SHALL BE LIMBED UP TO A HEIGHT OF 9'-0"
26. CONTRACTOR SHALL NOTIFY JERSEY CITY DIVISION OF PARKS AND FORESTRY 3 DAYS PRIOR TO BEGINNING PLANTING SHADE TREES.
27. ALL LANDSCAPING AREAS SHALL BE APPROPRIATELY PLANTED AND MAINTAINED WITH ANY DAMAGED, DISEASED OR DEAD MATERIAL REPLACED, ON AN ON-GOING BASIS.

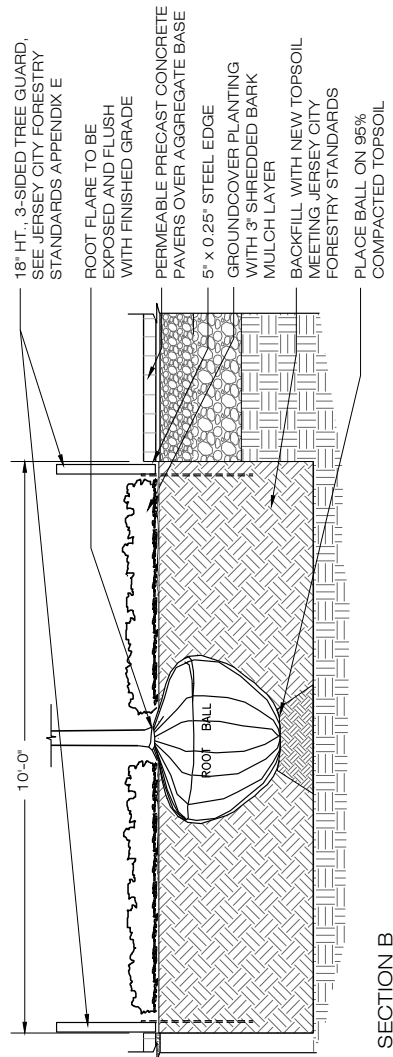
LANDSCAPE MAINTENANCE NOTES:

1. FOR THE DURATION OF THE TWO (2) YEAR GUARANTEE PERIOD, THE CONTRACTOR SHALL MAINTAIN ALL PLANT MATERIAL IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATIONS AND TO THE SATISFACTION OF THE CITY REPRESENTATIVE. ANY PLANT MATERIAL DETERMINED TO BE DEAD OR DYING AT THE CLOSE OF THE GUARANTEE PERIOD SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
2. AT THE COMPLETION OF THE FIRST YEAR OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL REMOVE ALL STAKES AND GUY WIRES. THIS SHALL BE DONE IN CONSULTATION WITH THE CITY REPRESENTATIVE. ALL STAKES REQUIRED TO REMAIN IN PLACE PAST THE COMPLETION OF THE FIRST YEAR OF THE GUARANTEE PERIOD SHALL BECOME THE RESPONSIBILITY OF THE OWNER.
3. FERTILIZER PERIOD SHALL BE APPLIED TO ALL TREES AND SHRUBS AT LEAST ONCE PER YEAR. MYCORRHIZAL FUNGI INNOCULANT SHALL BE APPLIED TO ALL TREES AND SHRUBS AT THE TIME OF PLANTING.
4. FERTILIZE ALL LAWN AREAS ONCE PER SEASON DURING THE SPRING, SUMMER, AND FALL. FERTILIZER SHALL BE A LOW PHOSPHORUS COMMERCIAL FERTILIZER, WITH A MINIMUM OF 7% NITROGEN BY WEIGHT, AS DESCRIBED IN THE LANDSCAPE SPECIFICATIONS.
5. PLANT MATERIAL SHALL BE INSPECTED FOR PEST DAMAGE AND INFESTATION AT REGULAR INTERVALS. APPLY PEST CONTROL MEASURES ACCORDING TO THE LIFE CYCLE OF THE PESTS. ALL PESTICIDES SHALL BE APPLIED BY A LICENSED PRACTITIONER.
6. SEASONAL MAINTENANCE NECESSARY TO ENSURE HEALTHY AND VIGOROUS GROWTH OF PLANT MATERIAL AND TO MAINTAIN THE APPEARANCE OF THE LANDSCAPED AREAS SHALL BE PERFORMED AS NEEDED.
7. PLANTING BEDS SHALL BE WEEDED AND EDGED AS NEEDED TO MAINTAIN A NEAT APPEARANCE AND TO PREVENT THE ESTABLISHMENT OF WEEDS.
8. ALL MULCHED AREAS SHALL BE RAKED AND MULCH SHALL BE REPLENISHED AS NEEDED EACH SPRING.
9. PRUNING OF DEAD AND DAMAGED BRANCHES SHALL BE PERFORMED EACH FALL, AND AS NEEDED FOLLOWING DAMAGE TO PLANT MATERIAL.
10. DEBRIS AND DEAD LEAVES SHALL BE REMOVED FROM PLANTING BEDS IN THE FALL AND EARLY SPRING.

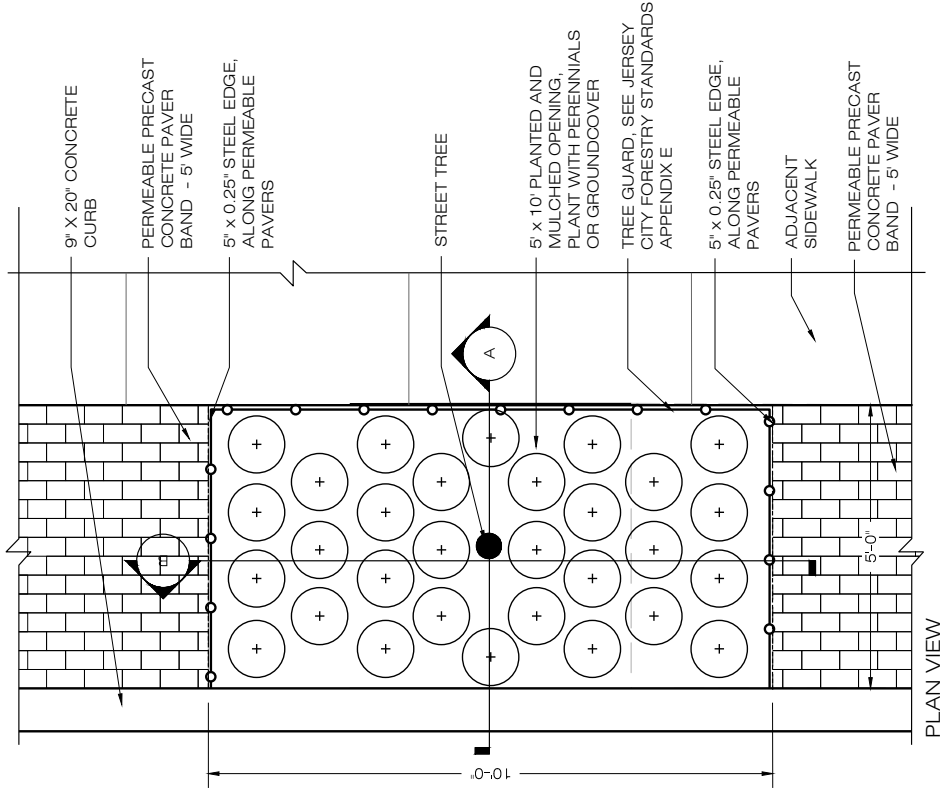
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STANDARD PLANTING			
DETAILS			
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SECTION A



SECTION B



PLAN VIEW

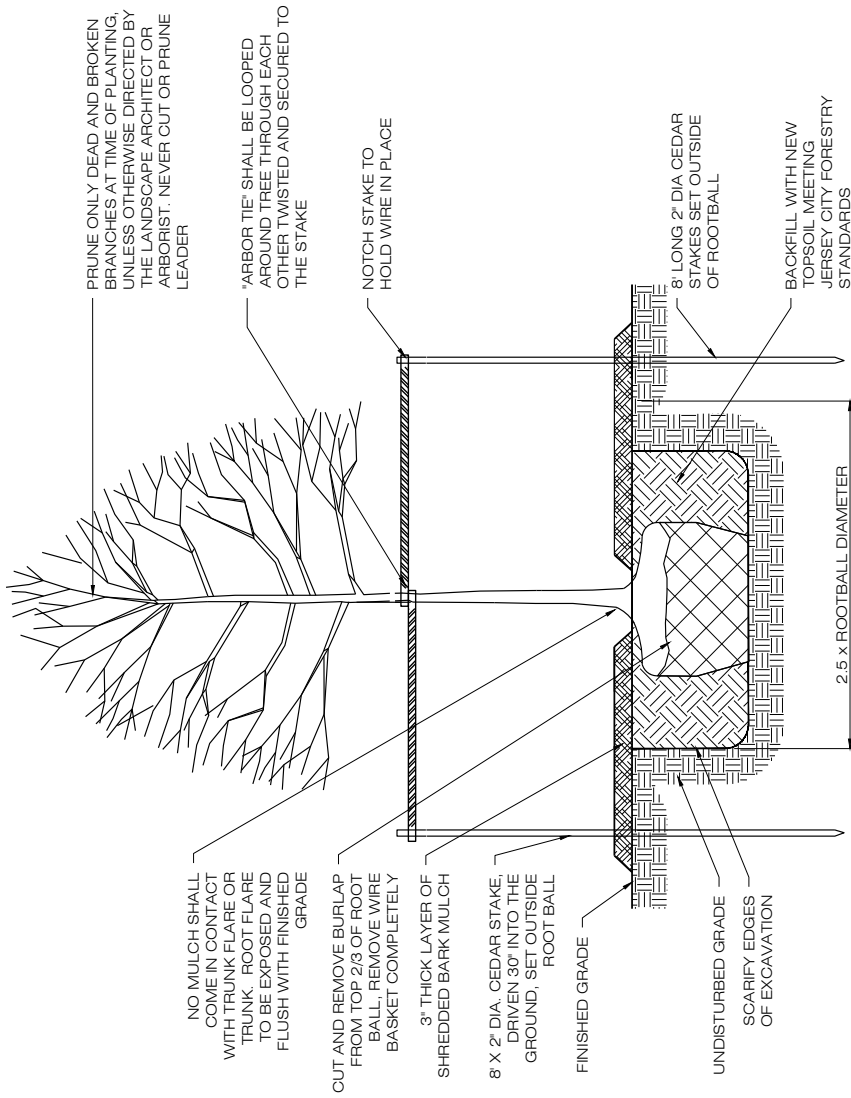
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CITY OF JERSEY CITY  
STANDARD PLANTING  
DETAILS

**TREE PLANTING NOTES:**

1. GAS OR ELECTRIC LINES SHALL BE 2' MINIMUM FROM EDGE OF TREE PIT. OIL FILLED PIPES SHALL BE 4' MINIMUM FROM EDGE OF TREE PIT. WATER AND SEWER LINES SHALL BE 2' FROM TRUNK.
2. TREES SHALL NOT BE LOCATED IN FRONT OF DOORWAYS
3. MINIMUM RECOMMENDED DISTANCE FROM TREE TRUNK:
  - 3.1. TO UTILITY POLES AND/OR LIGHTS SHALL BE 15'.
  - 3.2. TO WATER MAIN OVER 20" DIA. SHALL BE 6'.
  - 3.3. TO STREET SIGNS AND TRAFFIC SIGNS SHALL BE 5'.
  - 3.4. TO CURB SHALL BE 7'.
  - 3.5. TO FIRE HYDRANT SHALL BE 5'.
- 3.6. TO CURB OF NEAREST INTERSECTION SHALL BE 30'.
4. MINIMUM DISTANCE FROM EDGE OF TREE PIT TO NEAREST WALL OR FENCE SHALL BE 5'.
5. NO TREES SHALL BE INSTALLED BETWEEN UTILITY VAULTS AND CURB.
6. DO NOT PLANT NEW TREES UNDER OVERHEAD BRANCHES OF ADJACENT TREES.
7. TREE CROWN AND TRUNK SHALL BE FREE OF DEFECTS AND TRUE TO FORM.
8. MAINTENANCE TRACKING TAG SHALL BE ATTACHED TO STURDY SCAFFOLD BRANCH.
9. NO PAVERS, 4 SIDED TREE GUARDS, OR OTHER MATERIALS SHALL BE PLACED WITHIN THE TREE BED.
10. CUT AND REMOVE BURLAP FROM TOP 2/3 OF ROOT BALL, REMOVE WIRE BASKET COMPLETELY.
11. FLOOD TREES WITH WATER WITHIN THE FIRST 24 HOURS OF PLANTING.
12. INSTALL PHC TREE SAVER MYCORRHIZAL FUNGAL TRANSPLANT INOCULANT FOR TREES AND SHRUBS. INSTALL ONE 3 OUNCE PACKET PER CALIPER INCH OR PER 1 FOOT OF ROOTBALL DIA.
13. CONTRACTOR SHALL HAVE A GUARANTEE PERIOD OF 2 YEARS FOR EACH TREE PLANTED.
14. TOPSOIL SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
  - 14.1. NATURAL LOAM WITH THE ADDITION OF COMPOST OR HUMUS
  - 14.2. ORGANIC MATTER CONTENT SHALL BE BETWEEN 5% - 12%
  - 14.3. THE PH SHALL BE IN THE RANGE OF 6.0 TO 7.0 INCLUSIVE, UNLESS OTHERWISE APPROVED OR SPECIFIED BY THE JERSEY CITY FORESTER
  - 14.4. SOIL TEXTURAL ANALYSIS: TOP SOIL SHALL CONSIST OF THE FOLLOWING PERCENTAGES OF SAND, SILT, AND CLAY. ANY SOIL THAT DOES NOT MEET THE REQUIREMENTS BELOW WILL BE REJECTED AND REMOVED FROM THE SITE.
 

ROCKS, STONE AND GRAVEL	>2.0 mm	<5%
SAND	(0.05-2.0 mm)	40 - 60%
SILT	(0.002 - 0.05mm)	20 - 50%
CLAY	(<0.002 mm)	20% MAXIMUM
  - 14.5. WHEN TOPSOIL OTHERWISE COMPLES WITH THE REQUIREMENTS OF THE SPECIFICATION BUT SHOWS A DEFICIENCY IN ORGANIC MATTER, COMPOST MAY BE INCORPORATED WHEN AND AS PERMITTED BY THE FORESTER.
15. ROOT BALL SIZE RELATIVE TO TREE HEIGHT SHALL BE WITHIN THE RANGES SET BY THE AMERICAN NURSERY STANDARDS



PRUNE ONLY DEAD AND BROKEN BRANCHES AT TIME OF PLANTING, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT OR ARBORIST. NEVER CUT OR PRUNE LEADER

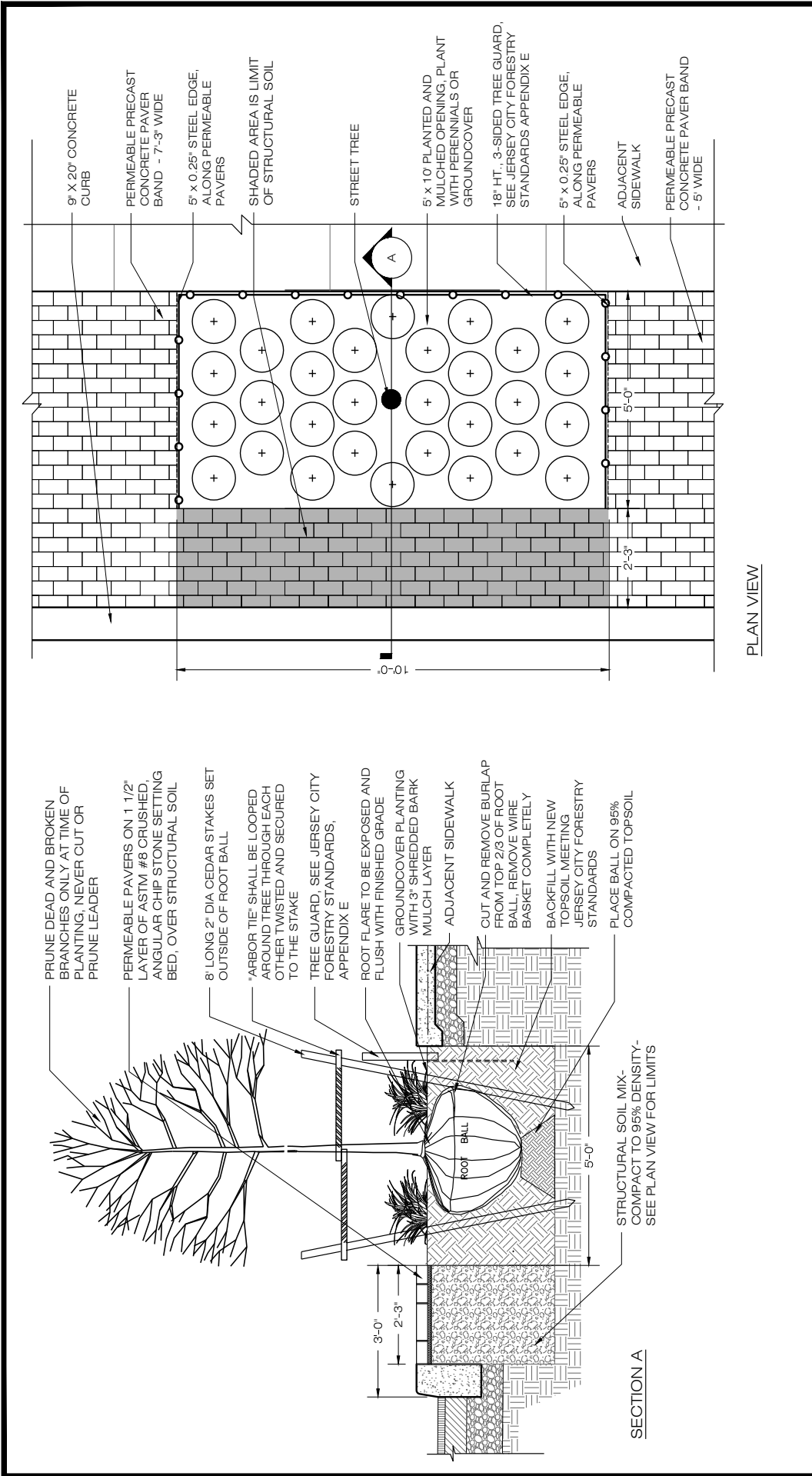
'ARBOR TIE' SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER TWISTED AND SECURED TO THE STAKE

NOTCH STAKE TO HOLD WIRE IN PLACE

8" LONG 2" DIA CEDAR STAKES SET OUTSIDE OF ROOTBALL

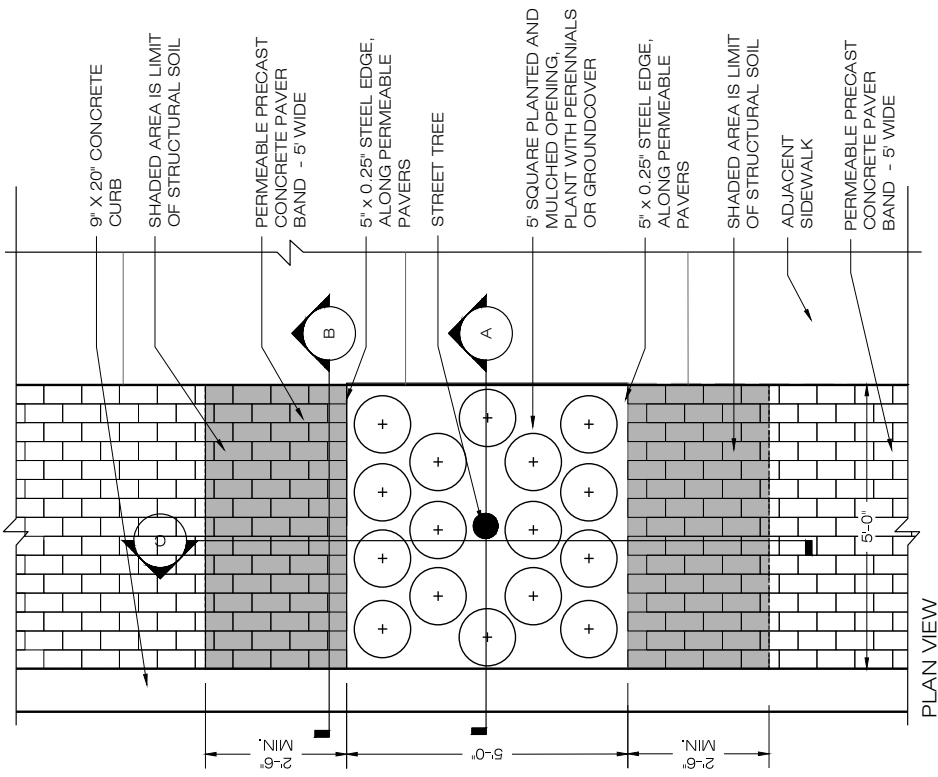
BACKFILL WITH NEW TOPSOIL MEETING JERSEY CITY FORESTRY STANDARDS

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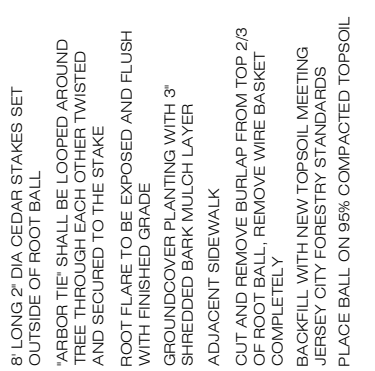


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DATE: 12-18-2017	
CITY OF JERSEY CITY STANDARD PLANTING DETAILS	
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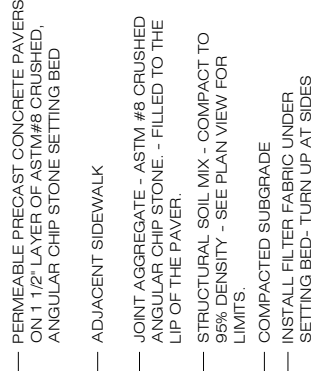
**APPENDIX B**



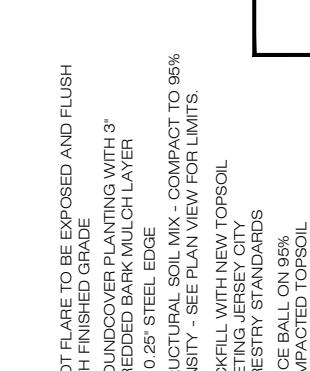
PLAN VIEW



SECTION A



SECTION B



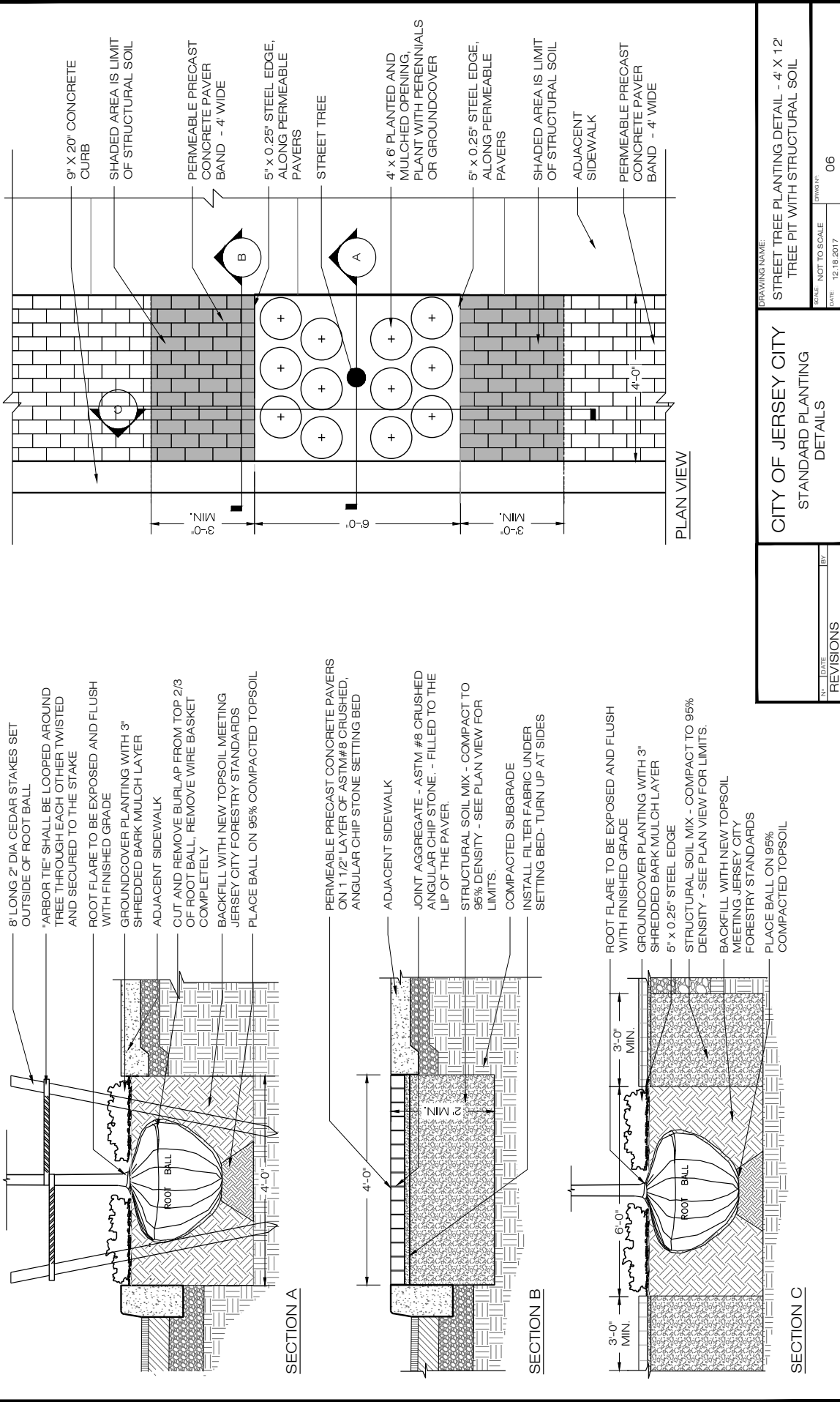
SECTION C

8" LONG 2" DIA CEDAR STAKES SET OUTSIDE OF ROOT BALL  
 'ARBOR TIE' SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER TWISTED AND SECURED TO THE STAKE  
 ROOT FLARE TO BE EXPOSED AND FLUSH WITH FINISHED GRADE  
 GROUNDCOVER PLANTING WITH 3" SHREDDED BARK MULCH LAYER  
 ADJACENT SIDEWALK  
 CUT AND REMOVE BURLAP FROM TOP 2/3 OF ROOT BALL, REMOVE WIRE BASKET COMPLETELY  
 BACKFILL WITH NEW TOPSOIL MEETING JERSEY CITY FORESTRY STANDARDS  
 PLACE BALL ON 95% COMPACTED TOPSOIL

PERMEABLE PRECAST CONCRETE PAVERS ON 1 1/2" LAYER OF ASTM #8 CRUSHED, ANGULAR CHIP STONE SETTING BED  
 ADJACENT SIDEWALK  
 JOINT AGGREGATE - ASTM #8 CRUSHED ANGULAR CHIP STONE - FILLED TO THE LIP OF THE PAVER.  
 STRUCTURAL SOIL MIX - COMPACT TO 95% DENSITY - SEE PLAN VIEW FOR LIMITS.  
 COMPACTED SUBGRADE  
 INSTALL FILTER FABRIC UNDER SETTING BED - TURN UP AT SIDES

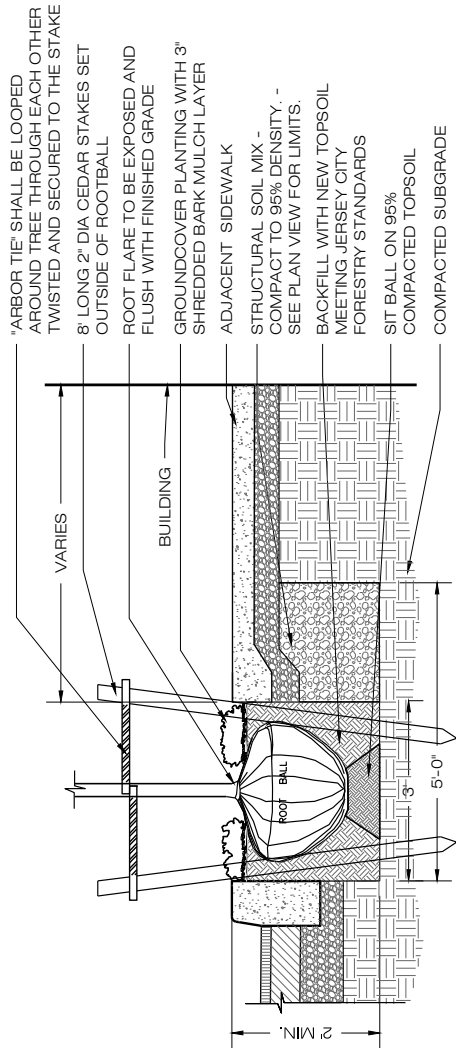
ROOT FLARE TO BE EXPOSED AND FLUSH WITH FINISHED GRADE  
 GROUNDCOVER PLANTING WITH 3" SHREDDED BARK MULCH LAYER  
 5' x 0.25" STEEL EDGE  
 STRUCTURAL SOIL MIX - COMPACT TO 95% DENSITY - SEE PLAN VIEW FOR LIMITS.  
 BACKFILL WITH NEW TOPSOIL MEETING JERSEY CITY FORESTRY STANDARDS  
 PLACE BALL ON 95% COMPACTED TOPSOIL

DRAWING NAME: STREET TREE PLANTING DETAIL - 5' X 10' TREE PIT WITH STRUCTURAL SOIL	
SCALE: NOT TO SCALE	DRAWN BY: 05
DATE: 12-18-2017	
CITY OF JERSEY CITY STANDARD PLANTING DETAILS	
DATE: 12-18-2017	BY: REVISIONS

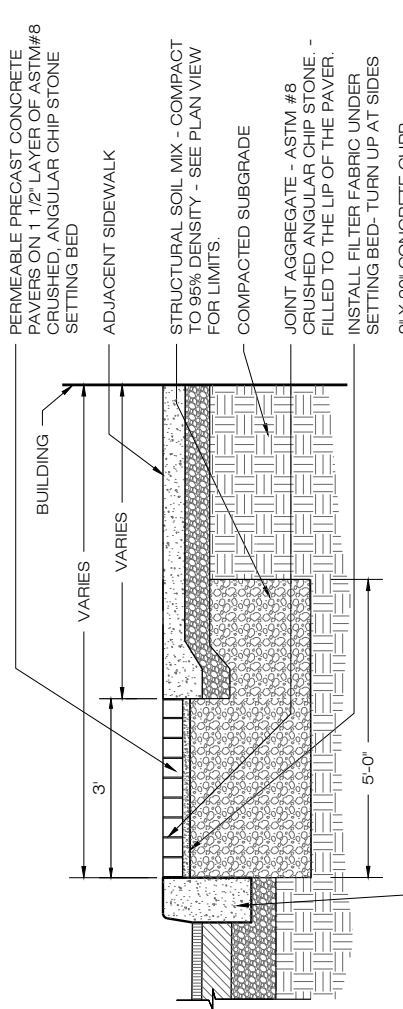


DRAWING NAME: STREET TREE PLANTING DETAIL - 4' X 12' TREE PIT WITH STRUCTURAL SOIL	
SCALE: NOT TO SCALE	DRAWN: 06
DATE: 12-18-2017	
CITY OF JERSEY CITY STANDARD PLANTING DETAILS	
DATE: _____	BY: _____
REVISIONS	

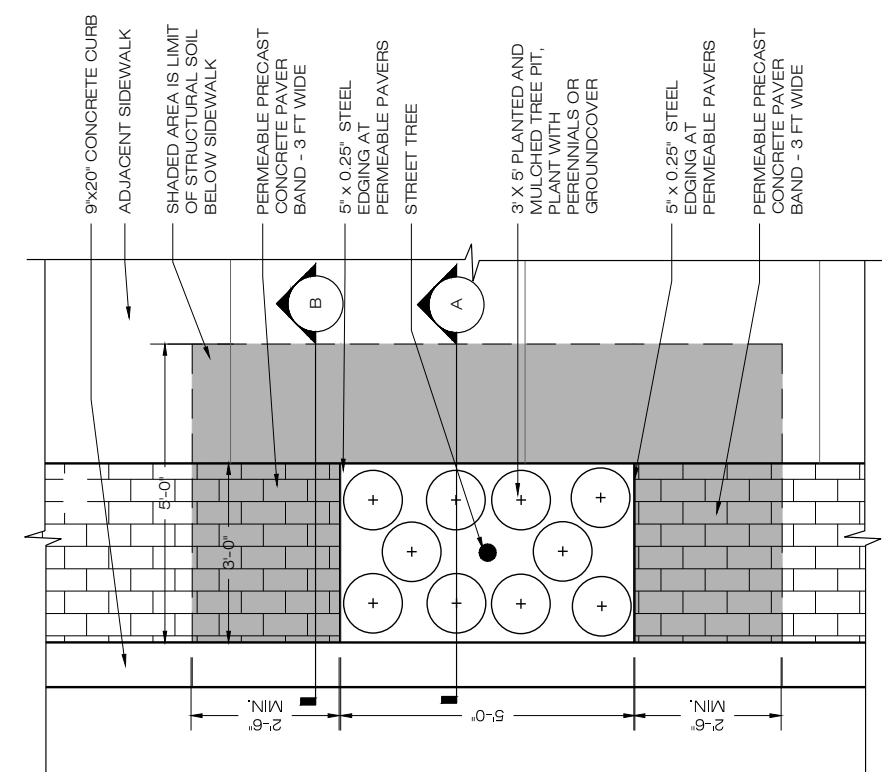
**APPENDIX B**



**SECTION A**

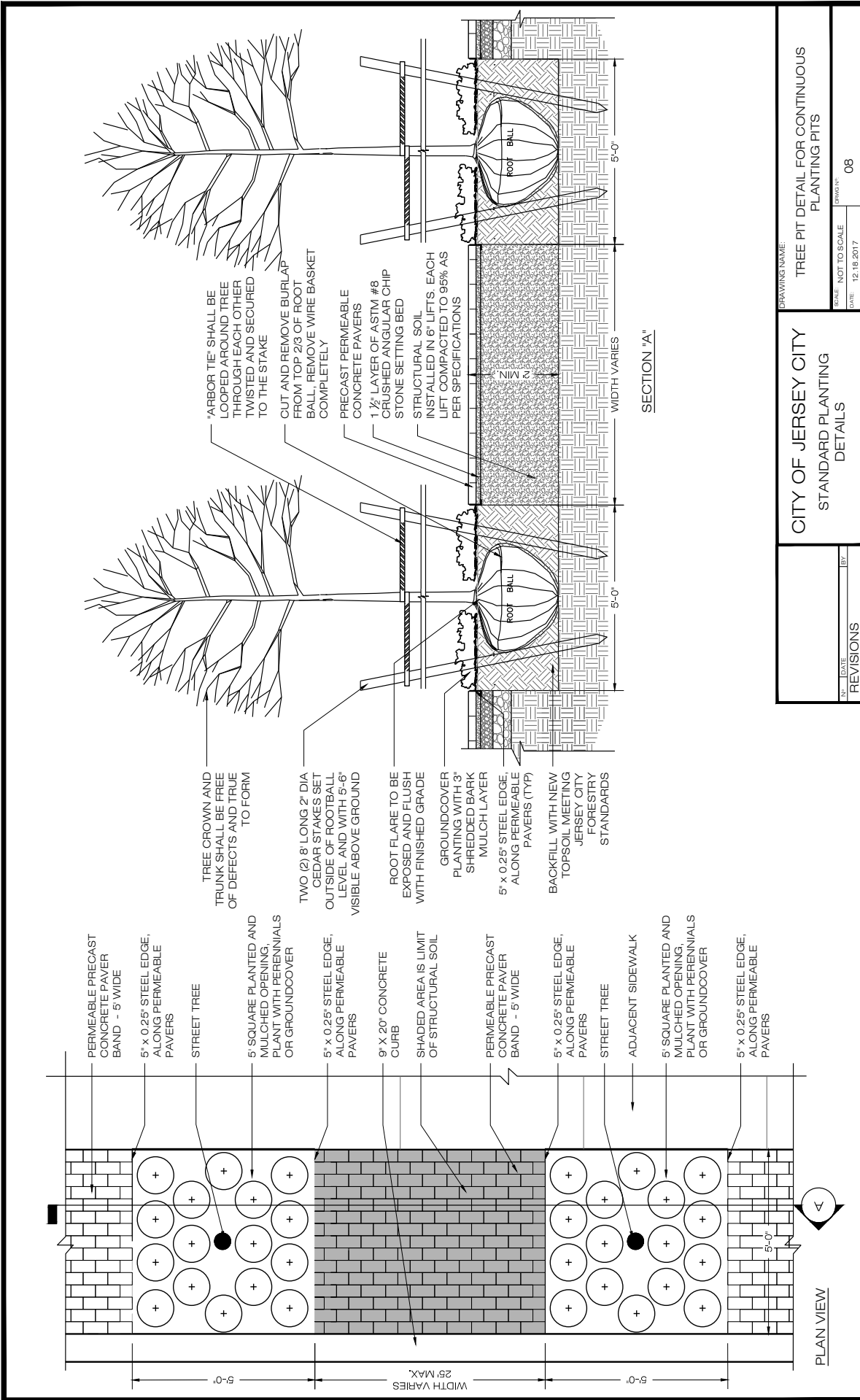


**SECTION B**

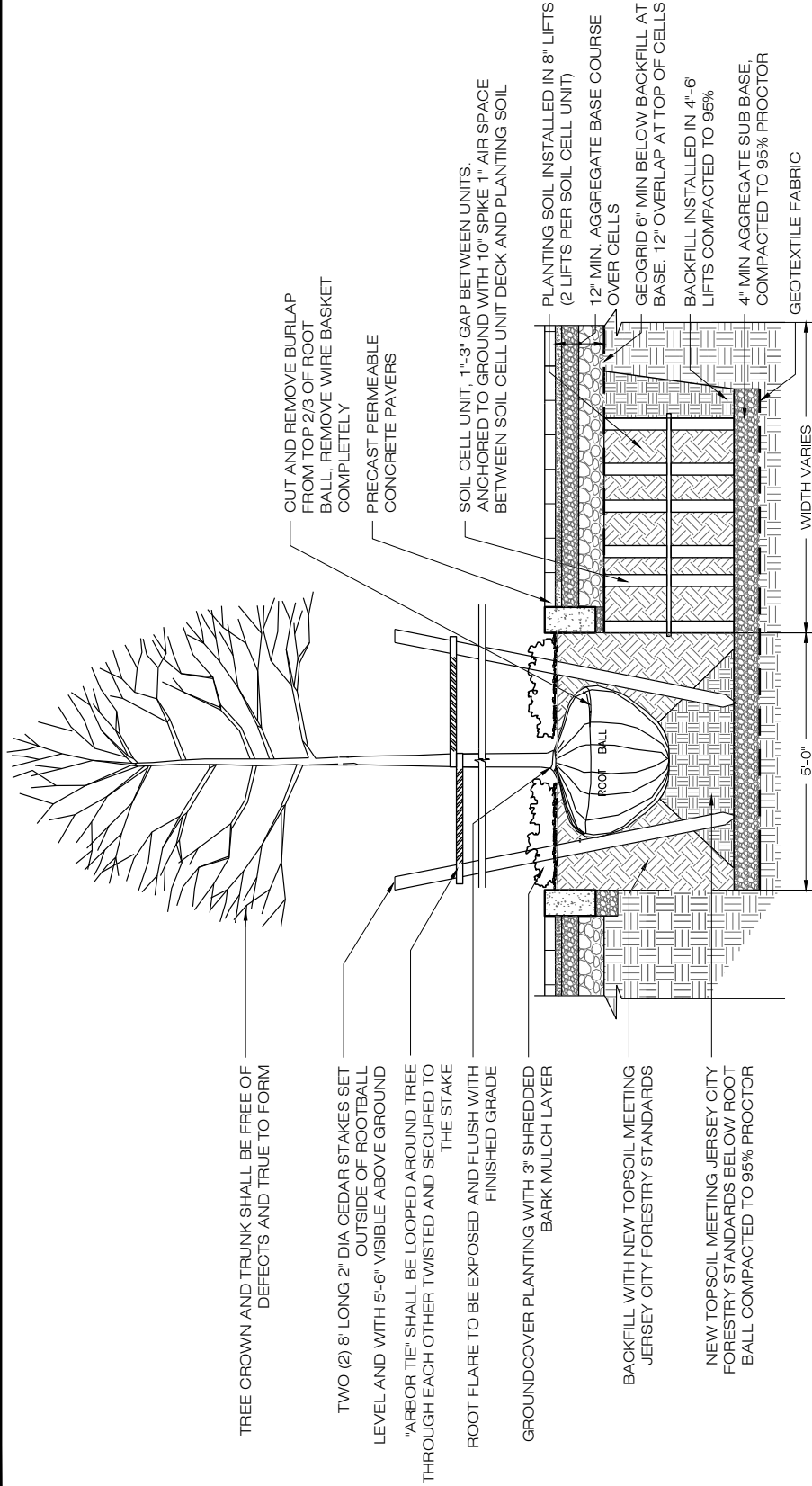


**PLAN VIEW**

DRAWING NAME:		TREE PIT DETAIL FOR SIDEWALKS OF LESS THAN 9' WIDTH
SCALE:	NOT TO SCALE	DATE: 12.18.2017
BY:	REVISIONS	07
CITY OF JERSEY CITY STANDARD PLANTING DETAILS		



DRAWING NAME: TREE PIT DETAIL FOR CONTINUOUS PLANTING PITS	
SCALE: NOT TO SCALE	DRAWN: 08
DATE: 12-18-2017	
CITY OF JERSEY CITY STANDARD PLANTING DETAILS	
DATE: 12-18-2017	BY:
REVISIONS	



TREE CROWN AND TRUNK SHALL BE FREE OF DEFECTS AND TRUE TO FORM

TWO (2) 8' LONG 2" DIA CEDAR STAKES SET OUTSIDE OF ROOTBALL LEVEL AND WITH 5'-6" VISIBLE ABOVE GROUND

"ARBOR TIE" SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER TWISTED AND SECURED TO THE STAKE

ROOT FLARE TO BE EXPOSED AND FLUSH WITH FINISHED GRADE

GROUNDCOVER PLANTING WITH 3" SHREDDED BARK MULCH LAYER

BACKFILL WITH NEW TOPSOIL MEETING JERSEY CITY FORESTRY STANDARDS

NEW TOPSOIL MEETING JERSEY CITY FORESTRY STANDARDS BELOW ROOT BALL COMPACTED TO 95% PROCTOR

CUT AND REMOVE BURLAP FROM TOP 2/3 OF ROOT BALL, REMOVE WIRE BASKET COMPLETELY  
 PRECAST PERMEABLE CONCRETE PAVERS

SOIL CELL UNIT, 1"-3" GAP BETWEEN UNITS, ANCHORED TO GROUND WITH 10" SPIKE 1" AIR SPACE BETWEEN SOIL CELL UNIT DECK AND PLANTING SOIL

PLANTING SOIL INSTALLED IN 8" LIFTS (2 LIFTS PER SOIL CELL UNIT)

12" MIN. AGGREGATE BASE COURSE OVER CELLS

GEOGRID 6" MIN BELOW BACKFILL AT BASE, 12" OVERLAP AT TOP OF CELLS

BACKFILL INSTALLED IN 4"-6" LIFTS COMPACTED TO 95%

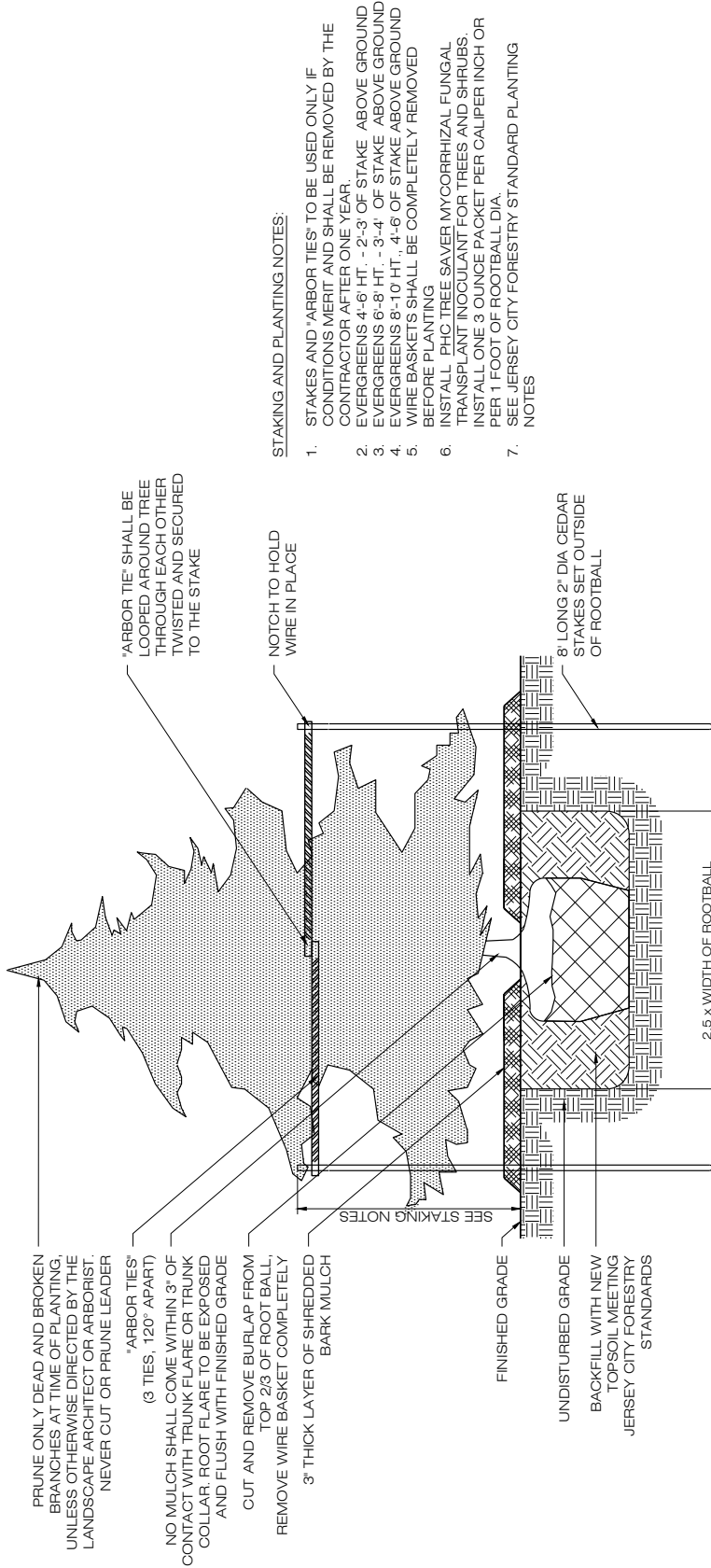
4" MIN AGGREGATE SUB BASE, COMPACTED TO 95% PROCTOR

GEOTEXTILE FABRIC

WIDTH VARIES

5'-0"

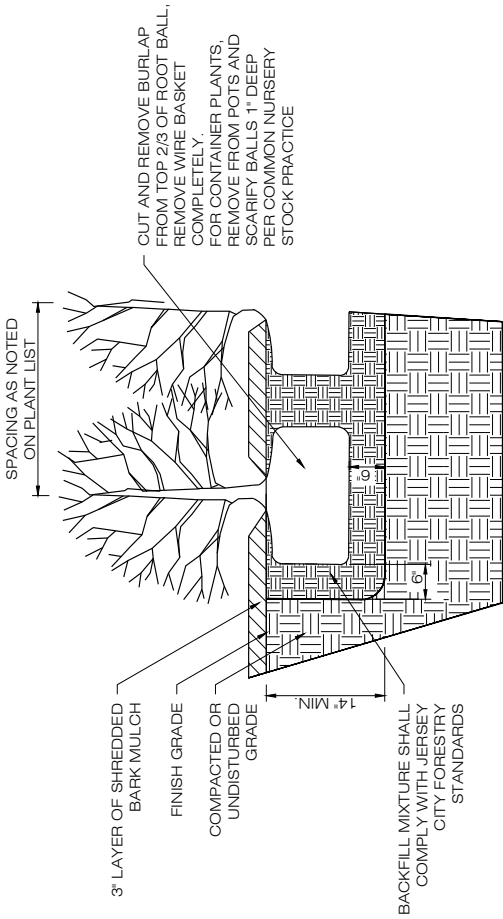
CITY OF JERSEY CITY STANDARD PLANTING DETAILS	DRAWING NAME: TREE PIT DETAIL WITH SOIL CELL UNIT - DOUBLE LAYER
	SCALE: NOT TO SCALE DATE: 12-18-2017 DRAWN BY: 09
NO. OF SHEETS: REVISIONS	BY:



**STAKING AND PLANTING NOTES:**

1. STAKES AND "ARBOR TIES" TO BE USED ONLY IF CONDITIONS MERIT AND SHALL BE REMOVED BY THE CONTRACTOR AFTER ONE YEAR.
2. EVERGREENS 4'-6" HT. - 2'-3" OF STAKE ABOVE GROUND
3. EVERGREENS 6'-8" HT. - 3'-4" OF STAKE ABOVE GROUND
4. EVERGREENS 8'-10" HT. - 4'-6" OF STAKE ABOVE GROUND
5. WIRE BASKETS SHALL BE COMPLETELY REMOVED BEFORE PLANTING
6. INSTALL PHC TREE SAVER MYCORRHIZAL FUNGAL TRANSPLANT INOCULANT FOR TREES AND SHRUBS. INSTALL ONE 3 OUNCE PACKET PER CALIPER INCH OR PER 1 FOOT OF ROOTBALL DIA.
7. SEE JERSEY CITY FORESTRY STANDARD PLANTING NOTES

DRAWING NAME: EVERGREEN TREE PLANTING DETAIL	
SCALE: NOT TO SCALE	DRAWN: 10
DATE: 12-18-2017	
CITY OF JERSEY CITY STANDARD PLANTING DETAILS	
NO. DATE	BY
REVISIONS	

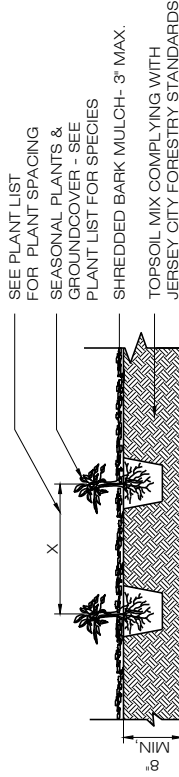


NOTES:

1. DO NOT PRUNE EVERGREEN SHRUBS EXCEPT TO REMOVE DEAD AND BROKEN BRANCHES. THIN BRANCHES AND FOLIAGE (NOT ALL BRANCH TIPS) BY  $\frac{1}{3}$  RETAINING NORMAL PLANT SHAPE.
2. SHRUBS SHALL BEAR THE SAME RELATIONSHIP TO GRADE AS IT BORE TO PREVIOUS GRADE IN NURSERY.
3. INSTALL PHC TREE SAVER MYCORRHIZAL FUNGAL TRANSPLANT INOCULANT. INSTALL ONE 3 OUNCE PACKET PER CALIPER INCH OR PER 1 FOOT OF ROOTBALL DIA. FOR RHODODENRONS, AZALEAS AND MOUNTAIN LAURELS USE ERICOID MYCORRHIZAL FUNGI.
4. WATER PLANTS THOROUGHLY AFTER PLANTING.
5. SEE JERSEY CITY FORESTRY STANDARD GENERAL PLANTING NOTES.

**SHRUB PLANTING DETAIL**  
NTS

CUT AND REMOVE BURLAP FROM TOP 2/3 OF ROOT BALL, REMOVE WIRE BASKET COMPLETELY.  
FOR CONTAINER PLANTS, REMOVE FROM POTS AND SCARIFY BALLS 1" DEEP PER COMMON NURSERY STOCK PRACTICE



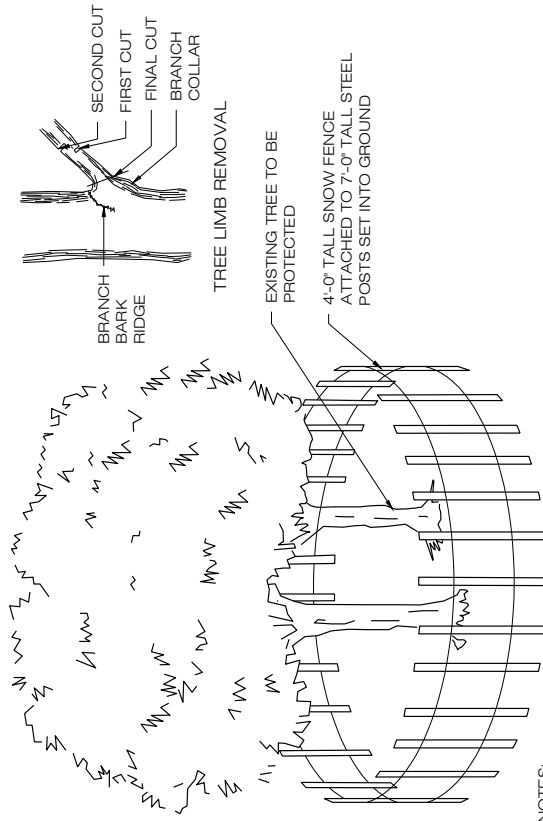
SEE PLANT LIST FOR PLANT SPACING  
SEASONAL PLANTS & GROUNDCOVER - SEE PLANT LIST FOR SPECIES  
SHREDDED BARK MULCH- 3" MAX.  
TOPSOIL MIX COMPLYING WITH JERSEY CITY FORESTRY STANDARDS

**GROUNDCOVER, PERENNIALS AND ORNAMENTAL GRASSES PLANTING DETAIL**  
NTS

NO.	DATE	BY
REVISIONS		

CITY OF JERSEY CITY  
STANDARD PLANTING  
DETAILS

DRAWING NAME: SHRUB AND GROUNDCOVER, ORNAMENTAL GRASS, AND PERENNIAL PLANTING DETAILS	
SCALE: NOT TO SCALE	DRAWN BY: 11
DATE: 12/18/2017	

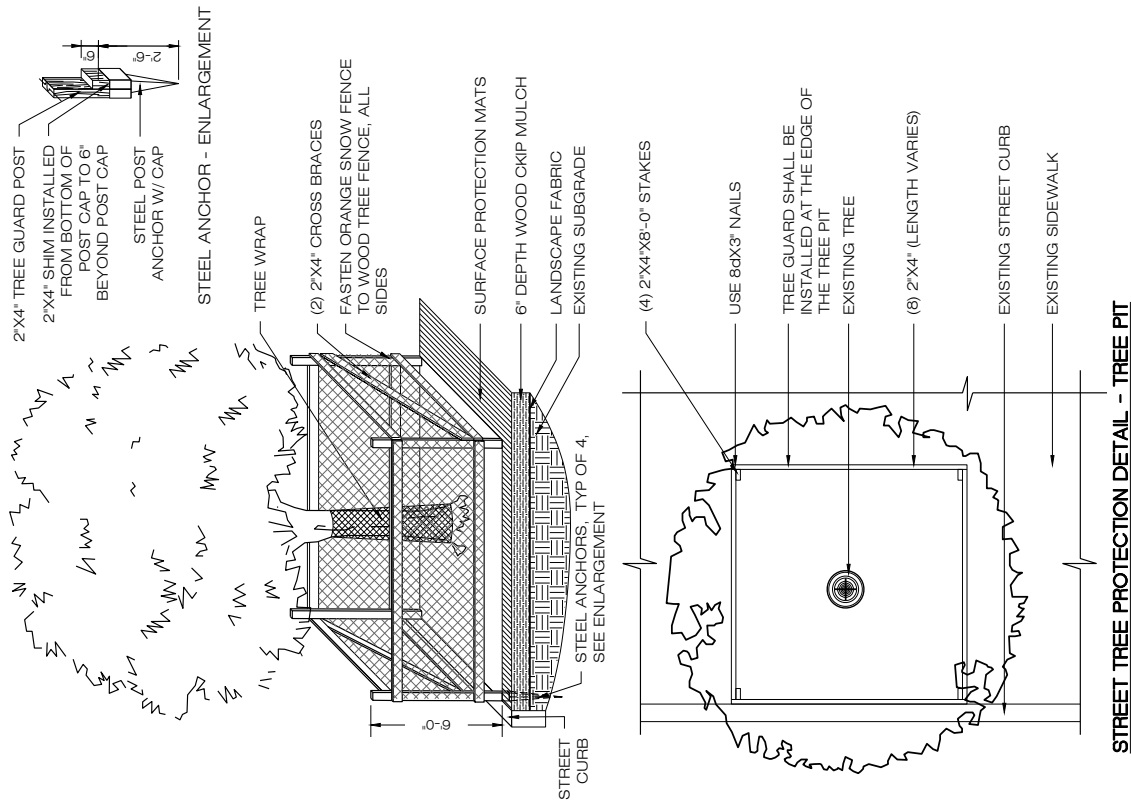


NOTES:

1. SNOW FENCING SHOULD BE INSTALLED AT DRIP LINE OF TREE BRANCHES.
2. NO BOARDS ARE TO BE NAILED TO TREES.
3. FEEDER ROOTS SHOULD NOT BE CUT INSIDE THE TREE BRANCHES DRIP LINE.
4. TREE LIMB REMOVAL, WHERE NECESSARY, WILL BE DONE TO TRUNK OR MAIN BRANCH.
5. ALL TREES INSIDE THE LIMIT OF DISTURBANCE TO BE PRESERVED MUST BE PROTECTED WITH ORANGE TREE PROTECTION FENCE.
6. PROTECT TREE DRIPLINE ROOT AREA. ANY CHANGE MUST BE FORWARDED (PRIOR TO WORK BEING COMPLETED) TO THE TOWNSHIP FORESTER FOR APPROVAL.
7. FENCE MUST REMAIN AND BE MAINTAINED THROUGH DURATION OF CONSTRUCTION.

**TREE PROTECTION DETAIL - OPEN SPACE**

DRAWING NAME: TREE PROTECTION DETAILS	
SCALE: NOT TO SCALE	DRAWN BY: 12
DATE: 12-18-2017	



**STREET TREE PROTECTION DETAIL - TREE PIT**

DATE: 12-18-2017	BY:
REVISIONS	

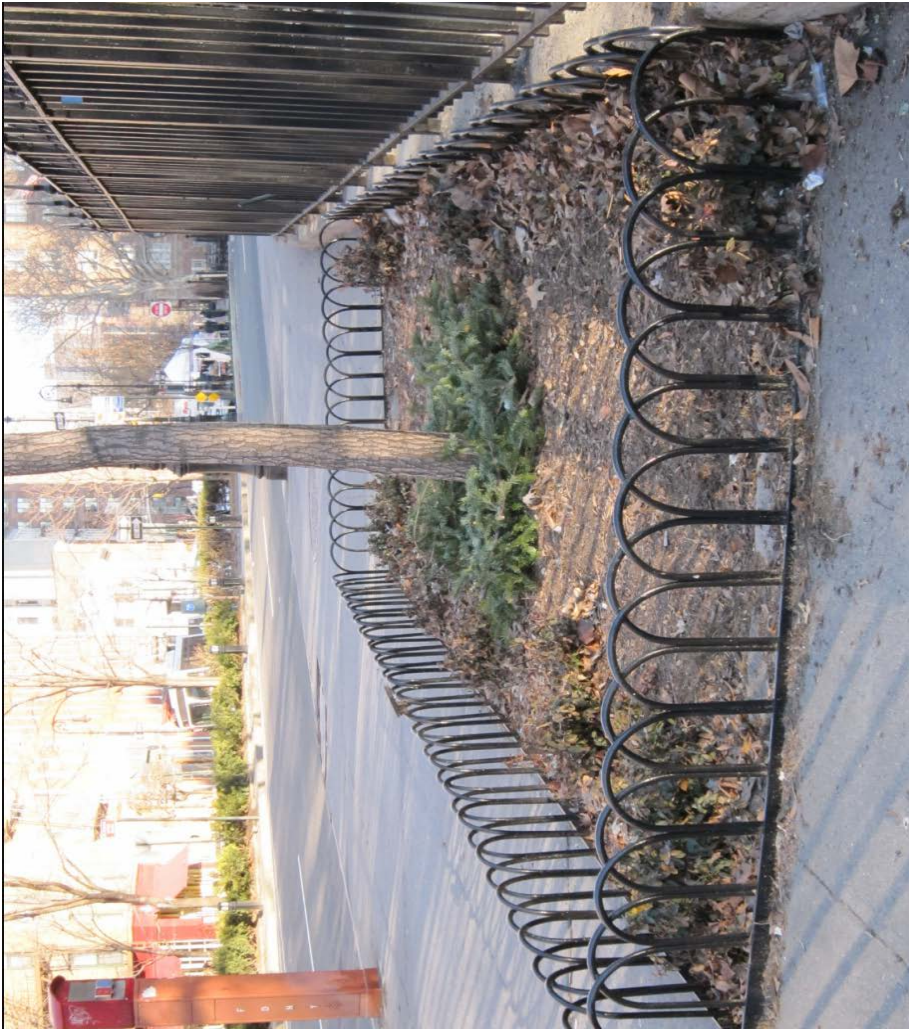
# Appendix C: Recommended Tree Species List

Common Name	Latin Name	Recommended Cultivars	Recommended on Narrow Sidewalks?	Recommended under Power Lines?	Native to Area?
Miyabe Maple	Acer miyabei	State Street			NO
Red Maple	Acer rubrum				YES
Freeman's Maple	Acer x freemanii	Autumn Blaze			
Allegheny Serviceberry	Amelanchier laevis	Spring Flurry	YES	YES	YES
European Hornbeam	Carpinus betulus	Fastigiata, Emerald Avenue		YES	NO
American Hornbeam	Carpinus caroliniana	Native Flame	YES	YES	YES
Hackberry	Celtis occidentalis	Magnifica, Chicagoland, Praire Sentinal			YES
Eastern Redbud	Cercis canadensis		YES	YES	YES
Oklahoma Redbud	Cercis reniformis				
Yellowwood	Cladrastis kentukea	Sweetshade, Perkins Pink		YES	
Cockspur Hawthorn	Crataegus crusgalli	inermis ("thornless")		YES	NO
English Hawthorn	Crataegus laevigata	Crimson Cloud only		YES	
Hardy Rubber Tree	Eucommia ulmoides	Remerald Pointe, Emerald			
Maidenhair Tree	Ginkgo biloba	Autumn Gold, Columaris, Fairmont, Fastigate, Magyar, Princeton Sentry, Shangri-la, Sky Tower	YES		NO
Honey Locust	Gleditsia triacanthos	inermis			
Kentucky Coffee Tree	Gymnocladus dioicus	Espresso, Praire Titan, Stately Manor			
Golden Raintree	Koelreuteria paniculata		NO	YES	NO
Sweet Gum	Liquidambar styraciflua	Cherokee, Happidaze, Moraine, Worplesdon			
Amur Maackia	Maackia amurensis			YES	NO
Crabapple	Malus	Cardinal, Profusion	YES	YES	
Dawn Redwood	Metasequoia glyptostroboides	"Gold Rush"			NO
Black Gum	Nyssa sylvatica	Forum, Red Rage, Wildfire			YES
Eastern Hop Hornbeam	Ostrya virginiana		YES	YES	YES
Persian Ironwood	Parrotia persica			YES	NO

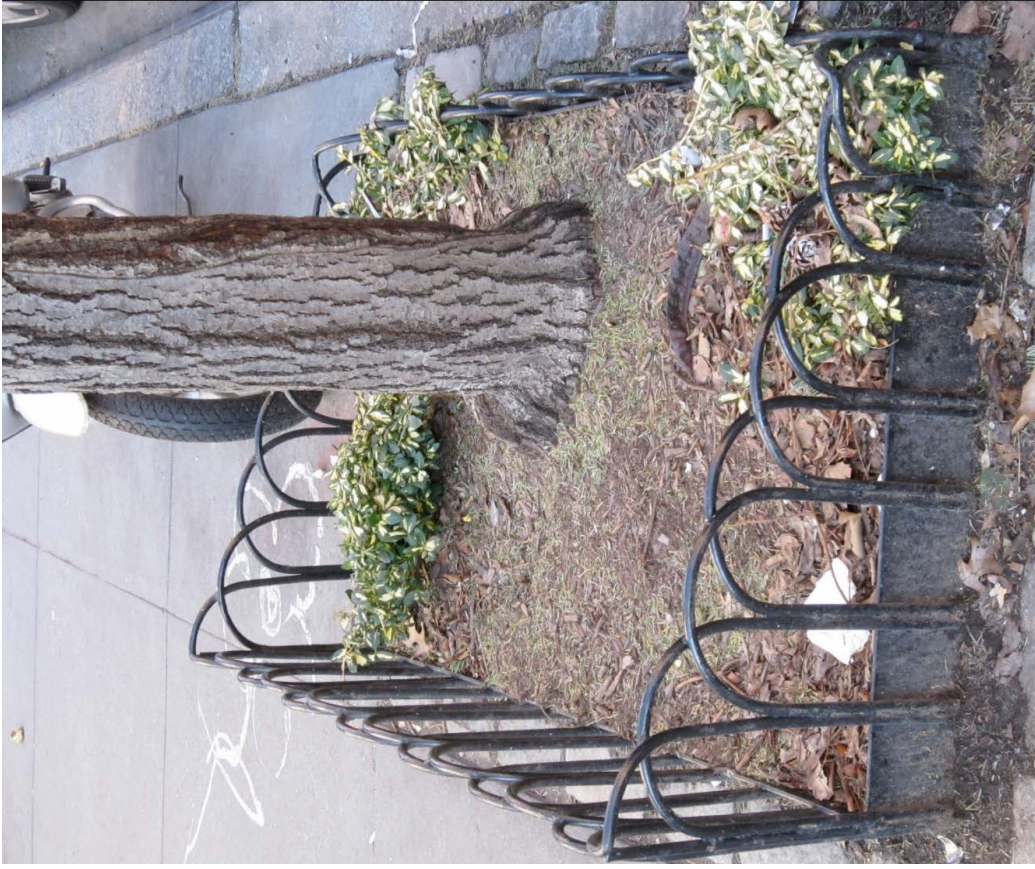
Common Name	Latin Name	Recommended Cultivars	Recommended on Narrow Sidewalks?	Recommended under Power Lines?	Native to Area?
Persian Ironwood	Parrotia persica			YES	NO
London Planetree	platanus x acerifolia	Bloodgood, exclamation,	NO	NO	NO
Sargent Cherry	Prunus sargentii	Columnaris, Rancho	YES	YES	NO
Japense Flowering Cherry	Prunus serrulata	Kwanzan, Shirotae, Tai Haku		YES	
Higan Cherry	Prunus subhirtella	Autumnalis	YES	YES	
Okame Cherry	Prunus x okame		YES	YES	
Yoshino Cherry	Prunus x yedoensis	Akebono, Cascade Snow	YES	YES	
Sawtooth Oak	Quercus acutissima		NO	NO	
Swamp White Oak	Quercus bicolor			NO	YES
Scarlet Oak	Quercus coccinea			NO	YES
Shingle Oak	Quercus imbricaria			NO	YES
Bur Oak	Quercus macrocarpa			NO	
Pin Oak	Quercus palustris			NO	YES
Willow Oak	Quercus phellos	Hightower		NO	YES
Chestnut Oak	Quercus prinus/ Quercus montana			NO	
English Oak	Quercus robur			NO	
Northern Red Oak	Quercus rubra			NO	YES
Shumard Oak	Quercus shumardii			NO	
Japanese Scholar	Sophora japonica				
Tree lilac	Syringa reticulata	Snowcap, Ivory Silk		YES	
American Linden	Tilia Americana				YES
Little Leaf Linden	Tilia cordata				
Mongolian Linden	Tilia mongolica	Harvest Gold			NO
Silver Linden	Tilia tomentosa				
American Elm	Ulmus americana	Princeton			YES
Zelkova	Zelkova serrata	City Sprite, Green Vase, Halka, Mushashino, Village Green, Wireless			NO
Sweet Gum		Slender Silhouette	YES		

# Appendix D: Tree Guard Details





Example of a Double Hoop Tree Guard Design



Example of a Double Hoop Tree Guard Design with Tapered Height

# Appendix E: City Permits

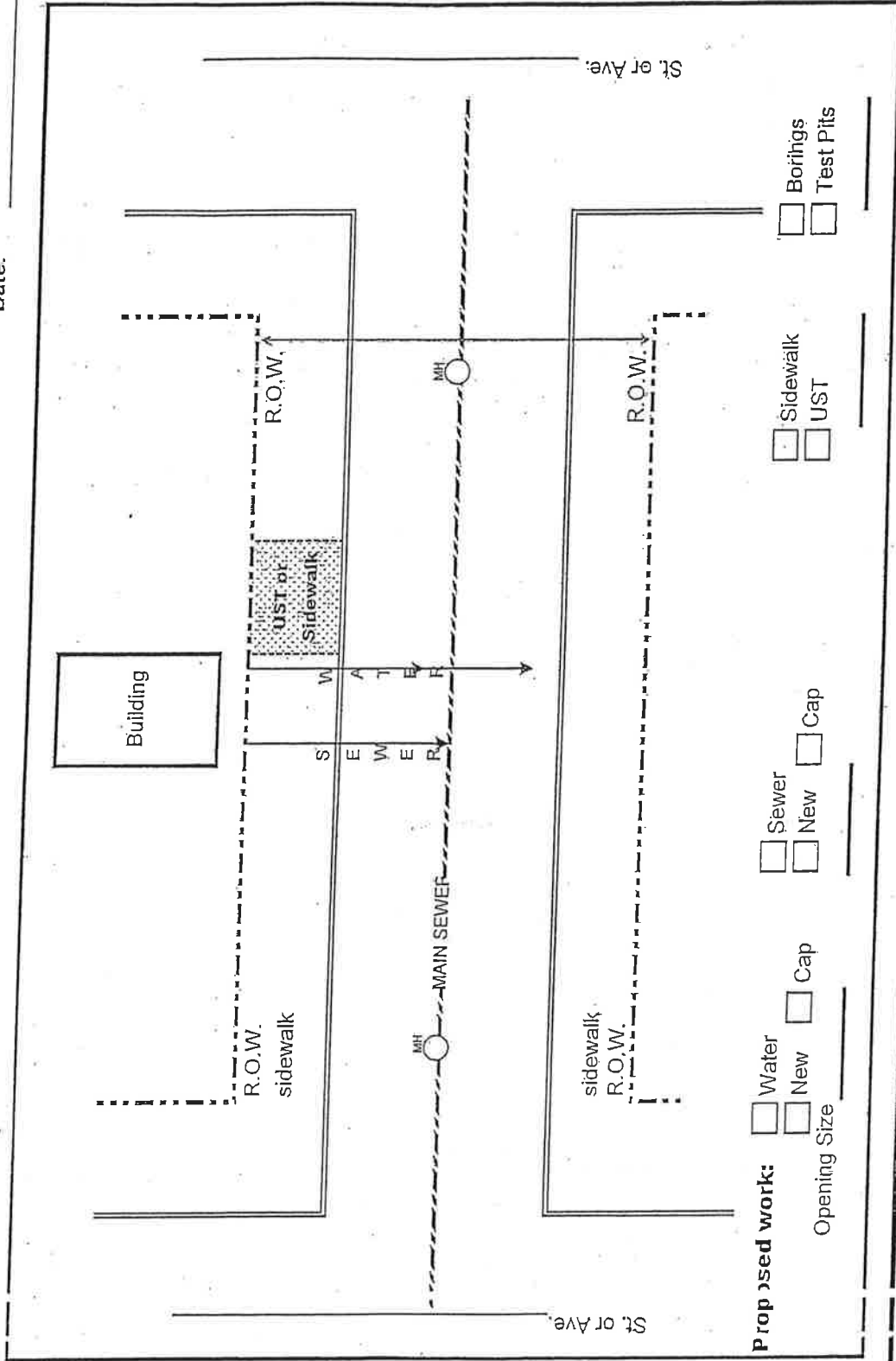


Address \_\_\_\_\_

Permit No. \_\_\_\_\_

Applicant \_\_\_\_\_

Date: \_\_\_\_\_



- Proposed work:**
- Water
  - Sewer
  - New
  - New
  - Cap
  - Cap
  - Opening Size \_\_\_\_\_
  - Sidewalk
  - UST
  - Borings
  - Test Pits

INSPICTOR \_\_\_\_\_ Date \_\_\_\_\_

Comments: \_\_\_\_\_

Approved  Disapproved



# CITY OF JERSEY CITY

## Street/Sidewalk Opening and Occupancy Permit

No. \_\_\_\_\_

Email [Monte@jcnj.org](mailto:Monte@jcnj.org) & [MDoyle@jcnj.org](mailto:MDoyle@jcnj.org) Rev. 3/17

<b>Work Requested</b>	<input type="checkbox"/> Sewer	<input type="checkbox"/> Water	<input type="checkbox"/> Fiber Optical
	<input type="checkbox"/> Borings	<input type="checkbox"/> UST	<input type="checkbox"/> PS- Electric <input type="checkbox"/> Other _____
	<input type="checkbox"/> Remediation	<input type="checkbox"/> PS-Gas	
	<input type="checkbox"/> Partial Sidewalk Repair	<input type="checkbox"/> Complete Sidewalk Repair	

**SITE:** \_\_\_\_\_  
 OR (House #) \_\_\_\_\_ (Street Name) \_\_\_\_\_ (Property Owner) \_\_\_\_\_ (Phone) \_\_\_\_\_

**Cross Streets:** \_\_\_\_\_ & \_\_\_\_\_  
 (Street Name) (Street Name)

Is excavation near signalized intersection?  Yes,  No.

**APPLICANT:** \_\_\_\_\_ **Sign:** \_\_\_\_\_

\_\_\_\_\_  
 (Company Name) (Company owner's name)

\_\_\_\_\_  
 (Company Address) (City, State, Zip)

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Jobsite contact: \_\_\_\_\_ Cell: \_\_\_\_\_

**OFFICIAL USE ONLY**

**MUA:**  
 Water:  under 2"  3" & above (Approved Plan required)  
 Sewer:  under 6"  8" & above (Approved Plan required)  
 Disconnect:  water /  sewer Water leak letter issued

JCMUA Project No. \_\_\_\_\_

Approved by: \_\_\_\_\_ (Date) \_\_\_\_\_

---

**STREET/SIDWALK OPENING:**  
 Attached drawing Fee: Up to 25 Sq Ft = \$50. (additional \$1.75 per sq. ft. increment), plus  
**Administration fee \$50.00 (ALL PERMITS)**  
 Borings/Pits amount \_\_\_\_\_ (\$50.00 ea. + Adm. fee) Total \$ \_\_\_\_\_

\$ \_\_\_\_\_ **TOTAL FEE** PAID BY:  Check No. \_\_\_\_\_

Issued by: \_\_\_\_\_ (Date) \_\_\_\_\_

---

**BUILDING CONSTRUCTION OFFICIAL:**

Review /Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

# Appendix F: Tree Related Ordinances in the Jersey City Code

## Chapter 321 TREES<sup>1</sup>

### § 321-1. Definitions.

[Added 12-13-2017 by Ord. No. 17-169 ]

For the purpose of this Chapter, the following terms shall have the meaning given herein:

CANOPY means the extent of the outer layer of leaves of an individual tree formed by the leader together with the scaffold and lateral branches (Figure 1).

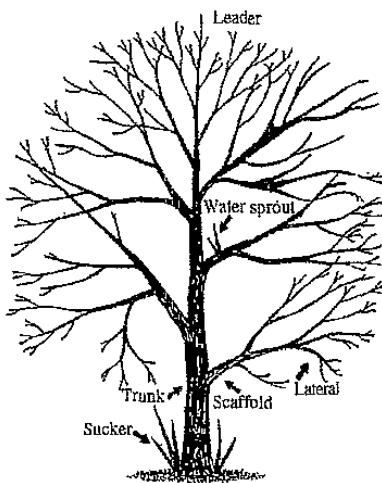


Figure 1

CITY TREE means (a) any living, self-supporting woody perennial plant that has a trunk diameter of at least two inches or more when measured at a point six inches above ground level and which normally attains an overall height of at least ten feet at maturity, usually with one main stem or trunk and several branches; and (b) planted in a public right-of-way, in a City park or on property owned by the City. The term "City tree" does not include trees on private property.

CROWN means the top part of the canopy (Figure 1).

DIVISION means the Division of Parks and Forestry.

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<sup>1</sup>Editor's note(s)—Ord. No. 17-169 , amended the Code by repealing former ch. 321, §§ 321-1—321-8, and adding a new ch. 321. Former ch. 321 pertained to similar subject matter, and derived from Ord. No. Mc-14, adopted September 8, 1981; Ord. No. McC-98, adopted January 24, 1990; Ord. No. 01-036, adopted April 14, 2001, and Ord. No. 01-082, adopted June 27, 2001.

Cross reference(s)—Shade Tree Committee, Ch. 10; Posting of Advertising Materials, Ch. 81; Trees in Parks and Recreation Areas, Ch. 239; Property Maintenance, Ch. 254; Streets and Sidewalks, Ch. 296.

---

DRIP LINE means the area defined by the outermost circumference of a tree canopy.

JERSEY CITY FORESTRY STANDARDS means the document promulgated by the Division of Parks and Forestry detailing the City's standards for the planting, maintenance and removal of City trees as defined herein. The Jersey City Forestry Standards shall be written and updated in consultation with the Shade Tree Committee and shall be subject to adoption by resolution from the Municipal Council.

[Amended 1-13-2021 by Ord. No. 20-111 ]

LATERAL BRANCHES means the secondary branches that emerge from scaffold branches (Figure 1).

LEADER means the vertical stem at the top of the trunk (Figure 1).

MUNICIPAL FORESTER means the employee of the Division of Parks and Forestry responsible for overseeing the planting, maintenance and removal of all City trees and who is responsible for promulgating the Jersey City Forestry Standards as well as the list of City tree valuations published annually.

PUBLIC RIGHTS-OF-WAY means all land in the City of Jersey City dedicated or expressly reserved for the use of vehicular or pedestrian traffic and/or utilities.

PRUNE means cutting or removing less than twenty (20) percent of the branching structure of a tree in the crown, trunk or root areas.

SCAFFOLD BRANCHES means the primary limbs that form a tree's canopy (Figure 1).

SHADE TREE COMMITTEE means the committee established pursuant to Chapter 10 of this Code.

[Added 7-17-2019 by Ord. No. 19-082 ]

TOPPING means cutting or removing the leader in such a way as to disfigure the canopy resulting in stunted or abnormal growth.

TRUNK means the stem and main wooden axis of a tree (Figure 1).

### **§ 321-2. Purpose.**

[Added 12-13-2017 by Ord. No. 17-169 ]

The Municipal Council finds that the preservation of existing City trees and the planting of new City trees promote the health and welfare of the public in the following ways:

1. Conserving energy by providing shade, lowering urban air temperatures, and acting as a windbreak in winter;
2. Protecting pedestrians from rain, wind, sun and heat;
3. Improving air quality by producing oxygen, absorbing carbon dioxide and particulate matter;
4. Reducing noise pollution;
5. Providing habitat for birds and other wildlife;
6. Reducing storm runoff and the potential for soil erosion;
7. Increasing real estate property values; and
8. Enhancing the City's aesthetic qualities and thus making it more attractive to residents, visitors and businesses.

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**§ 321-3. Prohibited activities.**

[Added 12-13-2017 by Ord. No. 17-169 ; amended 1-13-2021 by Ord. No. 20-111 ]

No person shall do or cause to be done any of the following to a City tree as defined herein:

1. Hitch or fasten any animal, bicycle or vehicle to any guard or support attached to the City tree;
2. Permit any injurious substance, whether gaseous, liquid or solid, to come into contact with the trunk or roots of any to any City tree;
3. Cover or obstruct any open space provided around the base of a City tree in such a way to prevent water or fertilizer from reaching the roots of the tree;
4. Pile any building material or make any mortar or cement within six feet of a City tree;
5. Affix a sign to a City tree through use of nails, staples, ropes, cables, wires, or other material that may cause punctures or girdling;
6. Cut or remove more than twenty (20) percent of a City tree's canopy.

**§ 321-4. Acts requiring a permit.**

[Added 12-13-2017 by Ord. No. 17-169 ]

- A. No person shall do or cause to be done any of the following without a permit from the Division of Parks and Forestry:

[Amended 1-13-2021 by Ord. No. 20-111 ]

1. Plant a tree in the public rights-of-way;
2. Remove a City tree;
3. Prune, cut or saw a City tree;
4. Spray a City tree with chemicals;
5. Climb a City tree;
6. Cut, trim, break or disturb the roots of any City tree;
7. Change the size or depth of a City tree bed or place any guard or structure around a City tree bed;
8. Fasten any rope, guy wire, electric attachments, sign or any other device to a City tree or to any guard about the City tree;
9. Remove any structure or device installed by the City to support or protect a City tree;
10. Change the grade of the soil within the limits of the canopy of any City tree;
11. Install an electrified wire above or through any City tree;
12. Conduct any activity within 15 feet of a City tree such as construction, demolition, replacement of a sidewalk or driveway, erecting scaffolding, repairing underground utilities or services, and installation of infrastructure such as a street light.

- B. A separate permit shall be required for each tree affected by any of the foregoing acts.

[Added 12-13-2017 by Ord. No. 17-169 ]

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### **§ 321-5. Planting trees.**

[Added 12-13-2017 by Ord. No. 17-169 ; amended 1-13-2021 by Ord. No. 20-111 ]

A property owner may plant a tree in the public rights-of-way abutting his or her property by obtaining a permit from the Division of Parks and Forestry subject to the following conditions:

1. The species shall be selected from the list of recommended trees in the Jersey City Forestry Standards and be planted and maintained according to the Jersey City Forestry Standards;
2. The owner shall carry liability insurance for any damage to property or injury to person by the planting of such City trees;
3. The owner shall maintain the sidewalk in accordance with Chapter 254 (Property Maintenance) and the tree-bed surrounding the tree in accordance with the Jersey City Forestry Standards;
4. A property owner to whom a permit is issued under this section may engage a private landscaper to plant a City tree or request that the Division plant the tree on behalf of, and as an agent for, the owner,

### **§ 321-6. Removal of City trees.**

[Added 12-13-2017 by Ord. No. 17-169 ; amended 1-13-2021 by Ord. No. 20-111 ]

- A. An adjoining property owner may be granted a permit for the removal of a City tree abutting his or her property in accordance with the Jersey City Forestry Standards under the following conditions:
  1. The City tree poses a danger to persons or property which cannot be remedied except by removal; or
  2. The removal of the City tree is required for the development of the property or the improvement of the sidewalk.
- B. An owner granted a permit to remove a City tree under subsection A.2 shall make a payment to the City equivalent to the value of the tree, as determined annually by the Division of Parks and Forestry in conjunction with the Shade Tree Committee in accordance with the Jersey City Forestry Standards.

[Amended 7-17-2019 by Ord. No. 19-082 ]

- C. If the Municipal Forrester determines that a tree requires removal, the Division of Parks and Forestry shall replace it with a tree from the list of recommended trees in the Jersey City Forestry Standards.
- D. Nothing in this section shall be construed to limit the power of the Division to move or require the removal of any City tree or part thereof for any purpose consistent with Section 321-2 and the Jersey City Forestry Standards.

#### **§ 321-6.1. Notice of removal of City trees.**

- A. Pursuant to the requirements as written and defined in the Jersey City Forestry Standards, at least ten days before the removal of any two or more trees by a property owner or party, notice shall be given to the owners of all real property as shown on the current tax duplicates within 200 feet in all directions of the tree to be removed. Notice shall be given by (1) serving a copy thereof on the property owner as shown on the said current tax duplicate, or his agent in charge of the property, or (2) mailing a copy thereof by certified mail to the property owner at his address as shown on the current tax duplicate.
- B. A copy of the notice provided to the property owners pursuant to § 321-6.1.A shall be filed with the Division of Parks and Forestry.

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C. Notice shall not be required for the emergency removal of any tree dangerous to public safety.

[Added 1-13-2021 by Ord. No. 20-111 ]

**§ 321-7. Permit application fee.**

[Added 12-13-2017 by Ord. No. 17-169 ]

Application for the permit required under Section 321-4 shall be made in writing to the Division of Parks and Forestry, on forms to be supplied by the Division, accompanied by the fee provided in Chapter 160 (Fees and Charges).

**§ 321-8. Protection from wires, cables and electrical current.**

[Added 12-13-2017 by Ord. No. 17-169 ]

Every person or entity having control over any wire for the transmission of an electric current along a public rights-of-way shall at all times guard all City trees through which or near which such wire passes against any injury from the wire or cable or from the electric current carried by it. The device or means used shall in every case be subject to approval by the Division of Parks and Forestry.

**§ 321-9. Violations and penalties.**

[Added 12-13-2017 by Ord. No. 17-169 ; amended 9-23-2020 by Ord. No. 20-074 ; 1-13-2021 by Ord. No. 20-111 ]

The penalties provided under Section 1-25 shall apply to violations of this chapter; provided, however, that the penalty for a violation of this Chapter shall be \$100.00 to \$2,000.00 as determined by the Jersey City Municipal Court. Additionally, the City may pursue all legal remedies in the Hudson County Superior Court for any trees that are removed, destroyed or damaged in violation of this Chapter.

**§ 321-10. Forestry standards adopted.**

[Added 3-28-2018 by Ord. No. 18-019 ; amended 1-13-2021 by Ord. No. 20-111 ]

The document entitled Jersey City Forestry Standards 2018 is hereby adopted and all the provisions contained therein are hereby incorporated into the Municipal Code by reference and also are on file in the Office of the City Clerk. All sections of this chapter shall be interpreted and executed in accordance with the Jersey City Forestry Standards as amended and adopted by the Municipal Council. The Jersey City Forestry standards shall be written and amended in consultation with the Jersey City Shade Tree Committee and shall be subject to approval by a resolution passed by the Municipal Council.