

TOWNSHIP OF WEST ORANGE
SECOND

COMMUNITY FORESTRY MANAGEMENT PLAN
FEBRUARY 2016



ROBERT PARISI, MAYOR

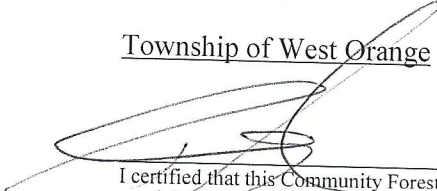
JERRY GUARINO, COUNCIL PRESIDENT
SUSAN McCARTNEY, COUNCILWOMAN
VICTOR CIRILO, COUNCILMAN
JOSEPH KRAKOVIAK, COUNCILMAN
MICHELLE CASALINO, COUNCILWOMAN

LEONARD R. LEPORE, TOWNSHIP ENGINEER / DIRECTOR OF PUBLIC WORKS
NICK SALESE, ASSISTANT DIRECTOR OF PUBLIC WORKS
MICHAEL ELIFANI, SHADE TREE SUPERVISOR
JOHN LINSON, URBAN FORESTRY CONSULTANT
JOSEPH McCARTNEY, COMMUNITY VOLUNTEER

PLAN DURATION – JANUARY 2016 – DECEMBER 2020

Cost of plan underwritten by a Green Communities Grant through the NJ Forest Service

MUNICIPAL/COUNTY INFORMATION FORM

Municipality Township of West Orange
County Essex
Address 25 Lakeside Avenue
West Orange, New Jersey 07052
Contact Name and Title Leonard R. Lepore, Municipal Engineer
Director of Public Works
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Fax # and E-mail (973) 669-9588 engineering@westorange.org; llepore@westorange.org
Organization Name Township of West Orange
Mayor/County Freeholder's Signature 
Date of Management Plan Submission APRIL 15, 2016
Time Period Covered in Management Plan January 2016 – December 2020

I certified that this Community Forestry Management Plan was developed specifically and exclusively for our municipality/county.

The following Community Stewardship Incentive Program (CSIP) practices are identified in our Management Plan:

- ✓ **CSIP #1 Training**
- ✓ **CSIP #2 Community Forestry Ordinance Established**
- ✓ **CSIP #3 Public Education and Awareness**
- ✓ **CSIP #4 Arbor Day Activities**
- ✓ **CSIP #5 Tree Inventory**
- ✓ **CSIP #6 Tree Hazard Assessment Plan**
- ✓ **CSIP #7 Storm Damage Assessments**
- ✓ **CSIP #8 Tree Maintenance and Removal**
- ✓ **CSIP #9 Insect & Disease Management**
- ✓ **CSIP #10 Wild Fire Protection**
- ✓ **CSIP #11 Tree Planting**
- ✓ **CSIP #12 Tree Recycling**
- ✓ **CSIP #13 Sidewalk Maintenance Program**
- ✓ **CSIP #14 Storm Water Management**
- ✓ **CSIP #15 Other**

Official Use Only Certification

The above named municipality/county has made formal application to the New Jersey Forest Service. I am pleased to advise you that after our review, the NJ Forest Service has concluded that this plan meets the standards set forth by the State and the NJ Community Forestry Council and is approved for the period covered.

Signed _____

State Forester Approved

5/18/16
Approved Date

Section 2 - Introduction

2A Mission Statement

The Township of West Orange recognizes the asset and value shade trees add to the quality of life for its residents. In so doing, it acknowledges the inevitability and responsibility of proper maintenance, care, mortality and replacement associated with these benefits. It is the Township's mission to promote a sustainable and productive community forest.

2B. Goals

The preparation and consistent implementation of a Community Forestry Management Plan helps insure that trees within the public-right-of-way not only contribute to the environment and economic vitality of the area, but also reduces potential hazards to public safety.

The Township of West Orange recognizes the value of the New Jersey's Shade Tree and Community Forestry Assistance Act in providing protection from liability to communities, which have properly planned and implemented a Community Forestry Management Plan. In recent years the Township of West Orange has taken initiative in reducing hazardous tree and sidewalk conditions throughout the community. The introduction of State Sanctioned Standards followed by local budgetary enablement will provide the necessary focus to minimize West Orange' future exposure in these sensitive areas and will simultaneously enrich the quality of life enjoyed by its residents.

2C Objectives

The Township of West Orange Community Forestry Management plan will enable the Township Council, The Township Administrator, the Director of Public Works and the Superintendent of Public Works to set attainable goals within the present budgetary constraints in meeting present and future tree maintenance needs. This management plan will evaluate West Orange's Shade Tree assets and liabilities and chart a course setting short and long-term objectives as indicated as follows:

A. Tree Inventory/Assessment

In anticipation of the management plan, a windshield tree survey was conducted of 20% of the Township in January 2016. Our goal for 2016-2020 is to conduct a windshield tree survey of 20% of the Township each year. See Township map in Appendix for the delineation of the five survey zones and copy of the 2015 survey. In consideration of the fact that West Orange has a full time tree crew and a part time forester one day per week, the town is periodically spot checked all the time for tree related problems. Consequently, it was determined that conducting the windshield tree summary over a five year period, would be more a practical exercise in distributing the workload than to overload the department with work orders all at once.

Windshield tree surveys conducted in the dry months of late July or August will catch trees during their most stressful period of the year. Trees with low, live crown ratios will be most notable at that time and would be designated for removal or remedial maintenance.

Surveys conducted during the cooler weather of September might observe fungal fruiting bodies which would be indicative of internal decay thus warranting a closer look.

Surveys of deciduous trees conducted during the winter months provide unobstructed views of branching and crotching structure, storm damage, lightning and frost cracks, broken and hanging branches, pocket cavities and other issues that are hidden by foliage during the growing season.

It is expected that observers will actually stop the vehicle and get out to more closely examine trees suspected of extensive internal decay, failed crotches, weak branch attachment or other structural weakness.

A comprehensive street tree inventory hopefully will be initiated sometime in the future, with Community Stewardship Incentive Program funding. See goal for 2016.

The Landscape Conservancy of New Jersey offers tree inventory services using the i-Tree U.S.D.A. Forest Service State of the art software. Should the Township receive a C.S.I.P. Grant or even a sustainable Jersey Grant to conduct a complete street tree inventory, it is suggested that they contact The Land Conservancy.

An inventory of the more rural areas of the Township containing naturally growing woodland trees will be impractical. Annual Windshield Tree surveys will best manage trees in these rural areas.

A short term goal for the Township of West Orange is to initiate an annual summary of shade tree accomplishments in relation to the mission, goals and objectives outlined in its Community Forestry Management Plan. The summary and evaluation assessment should take place in November or December to enable recommendations for improvement to be incorporated into the subsequent year's budget.

SHORT TERM OBJECTIVES

1. Conduct an annual windshield tree survey of Township trees.
2. Utilize this information to prioritize tree maintenance.

LONG TERM OBJECTIVES

Goals

Provide reliable inventory data for budget and planning purposes

1. To conduct an inventory of municipal street trees.
2. Computerize this data.
3. Integrate this data into a Customer Service program.

B Tree Hazard Identification and Management

The Township of West Orange has taken a pro-active position in identifying and promptly removing potentially hazardous trees in public right-of-way. A written Tree Removal Policy was developed to specifically define what the Town's reasons are for removing a tree. As a point of courtesy, notification doorhangers are left with immediately adjacent property owners prior to tree removal. See appendix for Tree Removal Policy.

West Orange customarily removes 100 -120 trees per year. Small to medium tree removals are conducted in-house. Larger tree removals are usually contracted out.

West Orange's pro-active position in promptly removing dead, diseased and structurally weak trees has greatly reduced its potential for storm damage and necessity of emergency response. West Orange Township is well equipped to handle virtually any tree related problem that could come its way and most public works employees have received cross training in chainsaw and brush chipper operation. West Orange Township has enjoyed the cooperation of P.S.E. & G for many years. Under emergency situations, West Orange's Fire Department is also capable of providing assistance. West Orange has an emergency hourly contract which requires response within two hours with adequate manpower and equipment.

The responsibility of sidewalk maintenance falls on the adjacent property occupant (which could be either owner or tenant occupied) by Township Ordinance. Property Maintenance is responsible for enforcing the ordinance. Sidewalk safety is a source of great concern. Customarily, the shade tree division of the Public Works Department works in concert with property owners and masonry contractors to trim down offending tree roots. A definite short-term goal will focus attention on developing a systematic approach to managing this issue. See goal for 2016. A sidewalk policy can be found in the appendix.

A goal for 2017 will be to have a hazardous sidewalk survey conducted. This will be accomplished with CSIP funding or, if not available, possibly as an Eagle Scout project or with summer interns.

The criteria to be used will be:

1. Identify sidewalks that have been uplifted more than three –quarters of an inch.
2. Determine whether a Township Shade Tree is believed to be responsible for the sidewalk lifting.
3. Determine the course of action to abate the situation. Typical solution include:
 - a. Remove the offending slab or slabs – shave the offending roots – pour a new slab or slabs.
 - b. If the exiting slab is in good condition, raise the offending slab – shave the offending roots – reset the existing slab in stone dust.
 - c. Plank the existing sidewalk over the offending roots (this method is frequently used with bluestone slabs).
 - d. Remove the offending slab or slabs- offset the replacement sidewalk to avoid the offending roots to minimize damage to the trees.
 - e. Remove the tree and replace the sidewalk per Township specifications.
 - f. Have a masonry contractor shave the edge of the offending slab(s).

Once a hazardous sidewalk survey has been completed, the results of the survey are to be turned over to the Shade Tree Supervisor which will prescribe how the problem will be abated and will supervise the root shaving of any trees to be preserved.

Goals

Prompt removal of dead and diseased trees.

Objectives

1. To conduct an annual hazardous tree inspection during late summer/early fall.
2. Removal of all dead and diseased trees within 9 months of identification.
3. Budget to contract our large tree removals.
4. Include the removal and replacement of marginal trees in Capital Improvement Road Resurfacing Projects whenever possible.

5. Provide prompt remedial pruning of hazardous conditions

Goals

Correction of hazardous sidewalk situations.

1. Improve communication with the public.
2. Change system from reactive to proactive.
3. Initiate a 10 year cycle inspection/correction program
4. Explore alternative grant and funding options.
5. Include the replacement of uplifted sidewalk slabs and driveway aprons in Capital Improvement Road Resurfacing Projects whenever possible.

C. Tree Planting

Tree replacement is provided both through both the Operating and Capital Budgets. Past practice has found that the majority of West Orange’s tree population is composed of maples. Balancing species diversity is considered one of arboriculture’s greatest management tools. West Orange will endeavor to minimize the planting of maples in the future. In cooperation with its above ground utility companies, West Orange has also attempted to utilize only compact growing replacement species under wires.

West Orange is committed to a “no net tree loss” program to replace all trees removed from Township right-of-way. Tree planting is conducted both by private contractors and in house.

West Orange has received tree planting grants in the past from the New Jersey Tree Foundation. The Township is also received a \$128,100.00 No Net Tree Loss Reforestation Act Grant which enabled us to plant 427 trees in various locations around the Township between spring 2010 and spring 2012.

Goals

Elimination of tree planting backlog.

Objectives

1. Increase tree planting budget line item.
2. Explore alternative grant and funding options.

Eliminate or minimize under stocked neighborhoods

1. Increase public awareness through news releases
2. Develop a fact sheet pertaining to the benefits provided by street trees
3. Pro-actively confront residents where tree planting is needed

D. Tree Maintenance and Care

The goal of this category is to provide scheduled maintenance of every Township tree over a prescribed 10 year period. Ideally requests for street maintenance from the public would be at a minimum if

the Township were able to prune (either contractually or in-house) one tenth of the entire tree population every year. Budget constraints and scarcity of CSIP Grants prevent this from actually happening.

In an attempt to be as pro-active as possible, West Orange has identified and targeted its large, over-mature and high maintenance trees for scheduled pruning while at the same time making the most of the “windows of opportunity” for DPW labor to make the best use of its labor force.

Conducting an annual windshield tree survey further helps to identify and prioritize needed tree maintenance. To this end, additional training of full time DPW employees is needed in Hazardous Tree Identification.

Moving away from planting problematic tree species such as Pin Oak, London Plane, Ash, Flowering Pear, etc. will over the long term reduce needed maintenance. Planting compact species under overhead utilities will also reduce tree maintenance headaches overtime. Recent storms with accompanying power outages indelibly remind us of the ongoing conflict between trees and overhead wires. The replacement of large growing species with compact growing species is often accelerated during Township road construction projects by proactively removing and replacing of over mature trees.

A major contributing factor in the recent power outages actually came from privately owned trees not from the Township trees. In the past, where required, the Township has put private tree owners on notice to remove potentially hazardous trees as we become aware of them. In the future, we may increase this noticing procedure.

To enable any tree to be deemed “hazardous” there must be both a tree defect and a potential “target”. Tree defects include crown dieback, excessive deadwood, lean, undermining, internal decay, decline due to insects, drought stress, lightning strikes, storm damage, grade changes or construction injury. Any structure, vehicle, person or personal property within striking distance of a tree becomes a potential “target”. However, we attempt to manage these risks by regular inspection and follow-up with remedial action.

Private tree owners should have their trees inspected regularly by a New Jersey Certified Tree Expert or International Society of Arboriculture Certified Arborist. Only full service tree companies employing NJ Certified Tree Experts or ISA Certified Arborists should be used when preserving and maintaining trees. Other companies specializing in tree removal services are usually more cost effective when it has been determined that at tree removal is necessary. Generally speaking, all trees require some form of maintenance at least once within a 7-10 year period. Tree removal and maintenance is usually 10% - 20% less expensive during the winter months (December through March) when tree companies are usually less busy.

The 2015 Windshield Tree Survey of 20% of Township streets identified the present tree maintenance needs:

Class II Pruning	714 Locations
Class III Pruning	8 Locations
Proposed Tree Planting Locations	11 Locations
Tree and Stump Removal	10 Locations

Requests and work orders for pruning services are prioritized by pruning category. In consideration of the downsizing of the Shade Tree Division over the last few years, West Orange has increasingly utilized contractual tree pruning services. West Orange’s tree population is estimated at 10,000 trees therefore approximately 1000 trees per year should be pruned annually. Assuming that West Orange’s existing tree

crew can prune approximately 300 trees per year in addition to their normal duties, West Orange should be budgeting \$105,000 per year to prune approximately 700 trees. A 2013 CSIP Grant of \$20,000 with a \$10,000 match enabled the Township to contractually prune 121 trees in 2015. Cabling, bracing, clearance and traffic visibility issues are given top priority and handled in-house.

<i>Goals</i>	<i>Objective</i>
Implementation of a routine tree maintenance plan.	<ol style="list-style-type: none"> 1. Maintain a contractual tree pruning line item. 2. Strive to maintain a 10 year pruning cycle. 3. Explore alternative grant and funding options.
Elimination of service request backlog.	<ol style="list-style-type: none"> 1. Contract out routine street tree pruning of high maintenance trees and other time consuming duties. 2. Explore alternate contractual arrangements. 3. Explore alternative grants and funding.

2D *Liability Statement*

The Township of West Orange recognizes its responsibility and the liabilities it has in promoting safe streets, sidewalks, parkland and public right-of-way. Toward this end, it has made a conscientious effort to promptly remove all dead, dying, diseased and potentially hazardous trees. This has resulted in a reduction in the need for emergency response.

Although street trees are an asset to the community, it is inevitable that they mature and require care, maintenance and eventually replacement. Care and maintenance, in addition to planting “the right tree in the right place” can help ensure that community trees not only contribute to the environmental and economic vitality of the area, but also reduce the potential hazards to public safety. Our community must work within a reasonable budget that may not be able to meet each and every need of our community forest immediately. Therefore, it is the intent of this plan to focus available resources to the greatest need and , step-by-step, work towards a healthy forest with commensurate reduced risks in public safety.

It is our position that by taking logical steps outlined in the plan, we will garner public support for the plan implementation and demonstrate the long-term benefits to the environment and public safety.

We also want to become more pro-active in the management and care of our trees. Through inventory and hazard assessment, we will position the Department of Public Works to take corrective action prior to structural tree failure and other hazardous tree related conditions. It is acknowledged that not all hazardous conditions will be predicted. Good maintenance and care will reduce the probability – but unexpected events will still occur.

The implementation of this plan will demonstrate that West Orange is devoting reasonable levels of resources in a planned manner to reduce the number of tree related accidents and thereby reduce its exposure to liabilities and increase public safety.

Section 3 – Community Overview – Past, Present and Future

West Orange is situated in the central portion of Essex County and contains approximately 12.15 square miles or 7,776 acres of land. It is west of New York City within the New York Metropolitan Area, and easily accessible to the highway and rail network which serves the northern New Jersey–New York Metropolitan complex.

West Orange's proximity to Newark and New York as well as its attractive location in the Watchung Mountains has played a major role in the Township's development. The first inhabitants were mostly farmers. Because of the Watchung maintain steep grades, they had to be almost entirely self sustaining. As the region grew West Orange was able to capitalize on its proximity to the urban centers of Newark and New York City and access to inexpensive rail transportation. These and other factors contributed to the emergence of a manufacturing economy in the early 1800's which continued into the early 20th Century. Today, manufacturing in West Orange has been replaced by service, financial, and retail enterprises.

Llewellyn Park is a private gated community within the Township encompassing 800 acres. It was founded in 1853 by Llewellyn S. Haskell.

West Orange was officially incorporated on April 10, 1863.

Thomas Alva Edison moved to West Orange in 1886. Edison Industries contributed heavily to the development of West Orange. Edison's Research Laboratory, Phonograph Works, and storage battery plant were all located within West Orange.

The present population is approximately 46,207. (2010 Census)

In 2010, the census found that there were 16,790 single family households in West Orange.

West Orange has 20 miles of state and county highway and 100 miles of municipal roadway.

West Orange is crossed east-west by Interstate 280 with interchanges at Northfield Avenue, Prospect Avenue, and Pleasant Valley Way. Route 280 provides travelers with easy access to the Garden State Parkway and the New Jersey Turnpike.

The Township borders on nine (9) developed suburban municipalities. These include: Montclair, Verona, Essex Fells, Roseland, Livingston, Millburn, Maplewood, South Orange and Orange.

Up until the 1950's West Orange operated under a Shade Tree Commission. At that time, the department consisted of 10 men, performed all tree maintenance in-house and even grew its own street trees in two Township nurseries. Ernie Ricca was Shade Tree Superintendent at that time until the late 1970's.

At some point in 1950's, the Shade Tree Commission was disbanded and the department was consolidated into the Public Works Department. In the 1970's, 1980's and 1990's the Shade Tree Division was downsized through attrition to its present 4 positions. Richard Manus served as Shade Tree Superintendent from the late 1970's to 1997 and as a part time consultant until 2006. Tree maintenance began to be contracted out in the 1970's. The contractual budget at that time was \$5,000 when trees could be pruned for as little as \$20 per tree.

At present, the 2015 contractual budget is as follows:

Tree Removal	\$ 70,000
Tree Pruning	\$ 70,000
Emergency and contracted hourly work	\$ 30,000

It is estimated that West Orange has 10,000 street trees.

The Township also maintains 93 acres of preserved municipal lands and 168 acres of non-reserved properties.

Michael Elifani, Shade Tree Supervisor, provides daily oversight of shade tree maintenance. A part time urban forestry consultant (with hours on Wednesdays) provides assistance in prioritizing the work load, overseeing tree planting, removal and pruning contractors, enforcing tree preservation and property maintenance ordinances and customer service issues.

The Original Township Master Plan was crafted in 1989. The most recent Reexamination Report prepared by Heyer Gruel and Associates was approved January 24, 2010. There are (18) objectives noted in the Reexamination Report of the Master Plan which are congruous to the Community Forestry Management Plan. The (18) objectives are as follows:

Objectives

The purpose of West Orange Master Plan is to do the following:

1. Encourage municipal actions which will guide the long range development of lands within the Township of West Orange in a manner which will promote the health, safety, and general welfare of present and future residents.
2. Secure the public's safety from fire, flood, panic, and other natural and man made disasters.
3. Provide adequate light, air and open space.
4. Ensure that development within the Township does not conflict with the development and general welfare of neighboring municipalities the County, the region, and the State as a whole.
5. Establish appropriate population densities and concentrations that will contribute to the well being of persons, neighborhoods and preservation of the environment.
6. Encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies.
7. Provide sufficient space in appropriate locations for residential, recreational, commercial, industrial and open space uses in a manner which will provide balanced growth and development.
8. Encourage the location and design of transportation and circulation routes which will promote the free flow of traffic while discouraging routes and facilities resulting in congestion or blight.
9. Promote a desirable visual environment.
10. Promote the conservation of historic sites and districts, and scenic areas such as Llewellyn Park and Prospect Ridge as well as open space as open space, and natural resources and prevent degradation of the environment through improper use of land.
11. Encourage development and rehabilitation of the Main Street Central Business District.
12. Provide for the housing needs of senior citizens and low and moderate income households.
13. Improve and maintain residential neighborhoods by encouraging rehabilitation of existing dwellings and new residential construction of suitable densities.
14. Promote the recovery of recyclable materials from solid waste and encourage the conservation of energy.
15. Coordinate the public and private procedures and activities which influence land development with a view of promoting efficient use of land and lessening the cost of such development.
16. Encourage the continued economic development of the community.

17. Maintain a continuous planning process which will coordinate capital expenditures with the Master Plan and provide for development reviews to implement the Plan's policies and standards.
18. Utilize available funding sources at the Federal, State, and County level to improve and revitalize the community.

West Orange adopted a comprehensive Open Space and Recreation Plan on January 6, 2003 which was amended in June 2006.

The following is a listing of Open Space Goals all of which are related to the Community Forestry Management Plan:

- Preserve as much remaining land as possible;
- Expand community parkland for active and passive use;
- Develop "pocket parks" on underutilized land in the eastern section of the Township;
- Preserve natural features, such as stream corridors, wetlands and water quality;
- Preserve viewsheds within West Orange, such as the ridgelines of the Watchung Mountains;
- Establish greenways connecting parkland in the Township;
- Preserve historically significant areas of the Township; and
- Establish community gathering points.

SUMMARY OF ANNUAL ACCOMPLISHMENTS

	2007	2008	2009	2010	2011	2012	2013	2014	2015
<i>Tree Removal(in house)</i>	90	120	100	170	N/A	N/A	100	89	128
<i>Tree Removal (contract)</i>	186	42	0	16	34	16	111		32
<i>Tree Pruned(in house)</i>	9	102	67	176	N/A	N/A	160	97	127
<i>Tree Pruned (contract)</i>	208	272	1	146	81	0	0	0	121
<i>Tree Planted(in house)</i>	22	1	151	1	0	2	1	3	1
<i>Tree Planted (contract)</i>	150	75	63	159	399	100	0	0	136
<i>Tree Permits Issued</i>	196	6	12	14	8	9	10	15	6
<i>Arbor Day Celebration</i>	<i>Rotary Park</i>	<i>Town Hall</i>	<i>Environmental Center</i>	<i>Edison School</i>	<i>WOHS</i>	<i>Pleasant Valley School</i>	<i>Redwood School</i>	<i>Mt. Pleasant School</i>	<i>St. Cloud School</i>
<i>Total Tree Expenditures</i>	\$505,597	\$519,752	\$537,537	\$514,846	\$714,094	\$573,846	\$496,152	\$504,612	\$655,816

Sustainable Jersey Tree Canopy Goal

The 1990 "Connecting People with Ecosystems in the 21st Century: An assessment of Our Nation's Urban Forests" study lists the Township of West Orange Tree Canopy Coverage as 33.7%.

American Forests recommends an overall goal of 40% with 50% for suburban residential zones, 25% for urban residential zones and 15% for Central Business Districts. West Orange recently received a No Net Loss Grant. The total grant was for \$128,000 which enabled the planting of 427 total trees.

Budget constrains normally only allow the planting of approximately 25 trees per year while as many as 100 – 120 street trees per year are removed.

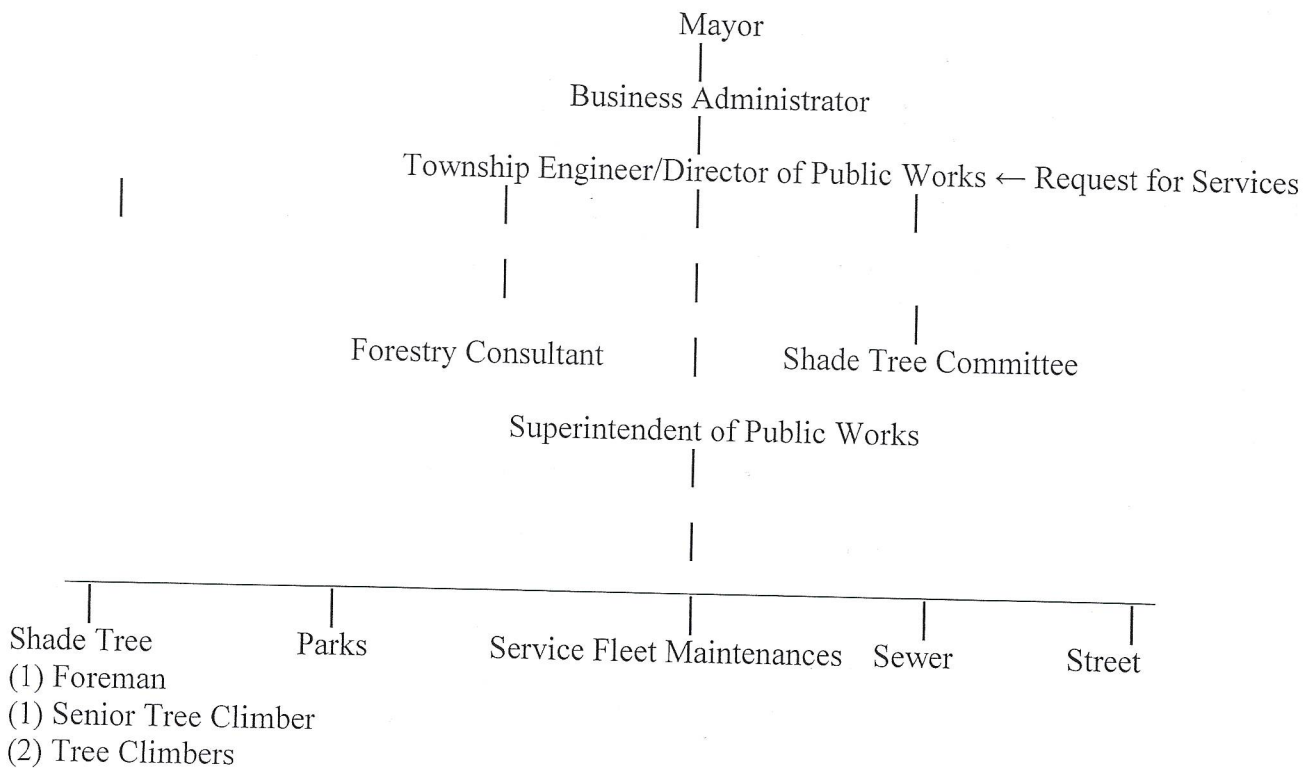
Road Reconstruction Projects now budget for tree replacement with capital budget funding. Since the No-Net-Tree Loss Grant funding has been expended, it will be necessary to increase the Public Works Line Item Budget for planting to an appropriate level.

Our first municipal tree canopy goal will be to increase tree canopy coverage by 2.3% over a 10 year period to 36%. This will be accomplished by identifying the respective areas of suburban residential zone, urban residential zone and central business district within the Township and get a handle on where specific heat islands exist. Once these are identified, a strategy will be developed to distribute replacement trees within these areas.

An additional strategy for increasing our tree canopy coverage will be to examine and change our zoning ordinance to specifically require increasing tree planting within the identified heat islands which we suspect are large parking areas or dense housing areas.

The idea being that the applicants appearing before our Zoning and Planning Boards would be required to bring tree canopy coverage on their respective sites to an acceptable level. The Township would also like to receive heat island dissipation credit for Golf Courses located within the Township.

Section 4 – Community Forestry Program Administration



Shade Tree Management is administrated through the Public Works Department. There is a well-equipped four man crew specifically dedicated for tree work. The crew can readily be expanded by other cross-trained public works personnel for special projects and emergencies.

Presently most routine maintenance and tree removals are conducted in-house. Most tree planting is contracted out.

Large tree removal and pruning of large high maintenance trees (such as pin oaks) is contracted out.

Requests for tree planting, maintenance and removal are made to the Department of Public Works.

A separate phone line with voice mail (973) 325-4015 is provided specifically for tree maintenance. The part-time Township Forester follows up on these requests on Wednesdays.

Inspections are made and work is prioritized into work orders. Work orders are distributed to the Public Works Department for completion. Service requests are stored electronically by street address until they are completed. Duplicate requests (as reminders) are provided to Public Works by the Forester as necessary.

Walk in service requests and requests through the Mayor's office are written up for the Forester for follow up on Wednesdays.

A future goal, will improve tracking of service requests.

Emergency requests are made directly to the Public Works Department. The Shade Tree Foremen is provided with a cell phone to insure 24 hour, 7 day per week service if necessary. The Township maintains an emergency service contract for situations requiring specialized equipment. Response time for the emergency contractor is within two hours. A Shade Tree Committee consisting of the Director of Public Works, the Superintendent of Public Works, the Shade Tree Foreman, The Forestry Consultant, and a community Volunteer sets shade tree policy and meets periodically to make determinations in nuisance and other delicate situations. Another function of the Shade Tree Committee is disseminating pertinent tree information to the public, coordination of annual Arbor/Earth Day events, cataloging landmark and specimen trees in the Township, monitoring the effectiveness of our current ordinances and policies, and keeping a watchful eye on the Township's Shade Tree resources. There are no plans to formalize the Shade Tree Committee into a commission or official advisory group. It functions very well as is. Historically our required volunteer is a liaison to another designated Committee. Our current volunteer is Chairman of the Open Space Committee.

Section 5 – Community Map

(11" x 17") - No changes from previously filed map

Section 6 – Training Plan

Presently (1) volunteer is core trained.

A goal for the next five years will be to have two full time employees core trained.

In consideration of the many acres of open space and park land owned by the Township and miles of roads maintained by the Township, it would be advantageous to have a public works supervisor attend a

hazard tree identification course. Other courses of interest are Brush Chipper and Chain Saw Safety, Tree Planting, Maintenance of Young Trees, Tree Care Disaster Planning, Recreational Use of Woodlands, Watershed Management Practices and Tree Selection.

It is the Township's intention that as many people as possible who are involved with the community forest should receive core training per the requirements of the New Jersey Community Forestry Council. The Township has supported the training needs by budgeting funds specifically identified for training purposes.

In 2016, 2017, 2018 and 2019 and 2020 the Township intends to send at least one representative each year to the Core Training Program and at least one representative to the NJ Shade Tree Federation Annual Meeting for continuing education.

It is also the intention of the Township to send representatives, including personnel from our Department of Public Works, for training or have training conducted in-house to achieve continued education credits in areas such as recognizing tree hazards, common insects and disease problems and response needs for tree emergencies.

As proactive as the Township has been, the substantial damage and power outages from the October 29, 2011 snow storm and Hurricane Sandy in 2012 have taught us that we need more training in Hazardous Tree Identification. The New Jersey Agricultural Experiment Station Office of Continuing Professional Educations offers a course entitled "Hazardous Tree Identification" at Rutgers University in New Brunswick. The course is based on "A Photographic Guide to the Evaluation of Hazard trees in Urban Environment" published by the International Society of Arboriculture which is the recognized standard text for tree hazard awareness. It is recommended that at least one person from West Orange's Department of Public Works attend a full day course each year. The course is offered twice per year.

Specific future training goals include educating field personnel and supervisors in integrated post management, safety, line clearance certification and hazardous tree identification.

The annual budget provides in-house personnel with opportunities to stay current with the latest tree maintenance technology.

The official contact person is Leonard R. Lepore, Municipal Engineer/Director of Public Works (973) 325-4161,

Section 7 – Public Education/Awareness/Outreach

West Orange is a Tree City U.S.A. and celebrates Arbor Day annually at a school or public facility.

The West Orange Chronicle carries pertinent tree information and news releases.

The Outlook, West Orange's quarterly newsletter provides a great venue for reaching residents with pertinent information as does the Township website www.westorange.org which we intend to utilize to greater advantage in the future.

Individuals notices or door hangers are provided to adjacent property owners prior to removing or planting trees.

Public Education/Awareness/Outreach is an area where the Township anticipates using the Shade Tree to generate and disseminate tree related information to the public.

Committee: Typically our volunteer(s) are members of non-formal committee or board such as Environmental Commission, Open Space Committee, Planning Board, etc. and serve as a liaison to the entities.

Section 8 – Statement of Tree Budget

**SHADE TREE DIVISION
2014 OPERATING BUDGET**

SALARIES

Michael Elifani, Supervisor	\$ 73,358.00
Nick Cherico, Public Works Repairer	\$ 60,422.00
Lenny Ripa, Truck Driver	\$ 54,255.00
Matt Hunt, Laborer (part time)	\$ 11,850.00
Joe Antonucci, Public Works Repairer (part time)	\$ 12,700.00
Gene Reilly, Public Workd Repairer(part time)	\$ 13,450.00
Salaries Sub-Total	<u>\$226,035.00</u>
30% Fringe Benefits	<u>\$ 67,810.00</u>
Total, Salaries, Regular Time	\$293,845.00

Overtime Salaries	\$ 4,461.00
10% Fringe Benefits	<u>\$ 446.00</u>
Total Salaries	\$ 298,752.00

EXPENSES

Conference/Schooling, Cert. Tree Expert	\$ 500.00
Dues	\$ 250.00
Spray Materials, Fertilizer	\$ 1,000.00
Shade Tree Supplies	\$ 2,500.00
Tools & Equipment	\$ 875.00
Trees	\$ 2,500.00
Saws & New Equipment	\$ 1,800.00
Advertising	\$ 75.00
Municipal Building & Towns Properties	\$ 1,500.00
Contractual Sevices, Township Forester	\$ 40,000.00
Contractor's Work	\$ 170,000.00
Total Expenses	\$221,000.00
GRAND TOTAL	\$519,752.00

NOTE: Hopefully volunteer hours will be added to West Orange's future annual tree related expenditures

Section 9 – Statement of Plan Implementation

The Township of West Orange has been pro-active in the area of its community forest for many years.

Although West Orange is fully developed, the Township must re-examine the condition of its community forest, make strategic management changes where necessary while, at the same time, maintain the various activities that the community has come to rely on.

Two notable storms occurred during the past management period which had a profound impact on West Orange's tree population:

- On October 29, 2011 a freak snow storm hit northern New Jersey causing severe damage to trees, especially those deciduous trees which had not lost their leaves. Oak trees were particularly hit hard. Damage was mostly in the form of broken and hanging tree branches.
- On October 28, 2012 Hurricane Sandy struck New Jersey. With its 80 – 100 mile per hour winds, Sandy left behind a wake of uprooted evergreen and deciduous trees throughout West Orange. Massive power outages lasted for over a week not only in West Orange, but in all municipalities in the County. These two event are still fresh in our minds and no doubt will have an impact on future tree maintenance and replacement for decades to come.

It is our belief that by being pro-active over the past management plan cycle the Township minimized the effect of these storms on the community by promptly removing dead, diseased and dying trees identified by road reconstruction projects, and by replacing trees under overhead wires with compact species.

EXISTING GOALS TO BE MAINTAINED ANNUALLY

Tree Inventory/Assessment

In the absence of a complete street tree inventory, a windshield survey will be conducted annually to determine the need for tree removal or maintenance. Work will be prioritized for completion in-house or through private contractors. Maintenance records of all trees removed, planted or maintained throughout the year will be kept.

Tree Hazard Identification and Management

Utilize information collected in annual windshield tree survey to prioritize work for in-house or contractual completion.

Maintain existing sidewalk inspection program with Property Maintenance Division. Repair uplifted sidewalks and driveway aprons through road improvement projects where ever possible.

Tree Planting

Celebrate Arbor Day annually and maintain Tree City U.S.A. status
Adequately fund tree replacement budget.

Tree Maintenance and Care

Prune all situations identified in the hazardous tree windshield survey within nine (9) months of identification.

Remove all trees designated for removal within six (6) months of identification.

Other

- Stay current with required core and continuing education credits for in-house personnel and volunteers
- Provide continuing integrated education pest management training for field personnel. Check for available training sessions with Division of Parks and Forestry.
- Provide hazardous tree identification and safety training to field personnel. Check for available training sessions with Division of Parks and Forestry.
- Provide an annual summary of accomplishments for New Jersey Community Forestry Program.

NEW GOALS TO BE PURSUED

Tree Inventory/Assessment

In 2019, using CSIP Grant funding (\$12,000.00 and operational funding (\$6,000.00) conduct a street tree inventory using student interns and computerize data in a useable and readily maintained format. Update annually thereafter.

<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
			X	

Hazard Tree Identification

Meet with Property Maintenance Division in 2016 to discuss how sidewalk inspections can be conducted on a pro-active basis.

X				
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Initiate a hazardous tree survey of municipality owned properties. (open space)

	X	X	X	X
--	---	---	---	---

Tree Planting

Maintain a No Net Tree Loss Policy where the same number of trees removed annually will be replaced annually (approximately 150 tree per year).

	X			
--	---	--	--	--

Increase tree planting budget to enable this to take place. Adjust budget accordingly in years where Cool Cities or No Net Tree Loss Grants are obtained.

X	X	X	X	X
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NEW GOALS TO BE PURSUED

TREE MAINTENANCE AND CARE

In 2016 provide adequate budgeting to contract out for the pruning of at least 700 trees per year, removal of at least 75 large trees per year. maintenance of off street public properties and adequate emergency response where specialized equipment is needed.	X	X	X	X	X
--	---	---	---	---	---

In 2020, use tree inventory to locate trees requiring high maintenance pruning. Revise 10 year tree pruning cycle for the entire Township using this information.					X
---	--	--	--	--	---

Other

In 2016, explore the creation of a Shade Tree Advisory Committee, and promote greater use of community volunteers. Get a community volunteer core certified.	X				
--	---	--	--	--	--

Encourage participation of Shade Tree Advisory Body in Arbor Day, Tree City U.S.A. and reviewing Township shade tree policy.	X	X	X	X	X
--	---	---	---	---	---

Apply for CSIP Funding in applicable areas.	X	X	X	X	X
---	---	---	---	---	---

Provide annual training for full time field personnel.	X	X	X	X	X
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Provide a copy of the approved Community Forestry Management Plan to Township planning officials.

Section 10 – Community Stewardship Incentive Programs (CSIP)

CSIP #1 Training

CSIP scholarships toward training of volunteers, employees and township representatives would enhance our existing efforts. Hazard tree instruction is needed for at least one field personnel. Integrated Pest Management training is needed for our shade tree supervisor. See Section 6 on pages 13 and 14 for more information.

CSIP #2 Community Forestry Ordinance Established

The Township of West Orange revised its tree protection ordinance a few years ago. CSIP funding that would provide additional research and education in this area would be of interest.

CSIP #3 Public Education and Awareness

CSIP funding could finance the distribution of valuable information to the West Orange Public School system and to the community at large. CSIP funding is specifically requested to bring in professionally developed Arbor Day Programs into our schools. Section 7 for more information on Page 15.

CSIP #4 Arbor Day Activities

The Township of West Orange would be grateful for any CSIP input to revitalize Arbor Day observances. Professionally developed programs would be helpful for our schools. See Section 7 on page 15 for more information.

CSIP #5 Tree Inventory

A computerized tree inventory is proposed for 2019 using CSIP funding.

CSIP #6 Tree Hazard Assessment Plan

Any future CSIP funding to enhance West Orange's hazardous tree diagnostic abilities would be greatly appreciated. See Training Plan in Section 6 on pages 13 and 14.

CSIP #7 Storm Damage Assessments

Even during the 2011 snow storm and Hurricane Sandy, West Orange has been fortunate to have avoided the extent of tree damage sustained by surrounding municipalities. The existing Emergency and storm response is taken care of by West Orange's in-house labor or assigned to an outside contractor. A CSIP Grant could provide the impetus to begin a study for regionalization of services with other communities in a disaster situation would be of interest as would be emergency preparedness.

CSIP #8 **Tree Maintenance and Removals**

The Township of West Orange recognizes the need to upgrade the level of proactive maintenance of its street trees. West Orange would definitely be interested in any CSIP funding that would provide relief or help explore alternative funding sources. See statements on Tree Maintenance and Care on pages 7 & 8.

CSIP #9 **Insect and Disease Management**

CSIP funding to provide integrated pest management training would be of particular interest. See Section 6 training plan on pages 13 and 14. Funding to provide contractual insect and disease control would be of interest.

CSIP #10 **Wild Fire Protection**

Source of wildfire in West Orange would most likely occur along the Route 280 corridor, South Mountain Reservation and Eagle Rock Reservation. West Orange has a full time fire department. If there is CSIP funding available and wildfire protection and prevention education course available, West Orange would most definitely be interested.

CSIP #11 **Tree Planting**

Cool Cities CSIP funding to supplement West Orange's tree replacement budget would be helpful in maintaining a fully stocked urban forest.

CSIP #12 **Tree Recycling**

The Township of West Orange presently recycles all wood chips, logs and herbaceous waste generated through the municipal tree pruning and removal operations at its municipally owned/ privately operated recycling center. Contractors providing arboricultural services for the Township are encouraged to do the same. Any CSIP funding that would facilitate increased tree recycling would be appreciated.

CSIP #13 **Sidewalk Maintenance Program**

West Orange is interested in obtaining CSIP funding to conduct a walking survey of the Township and Board of Education sidewalks. This most likely would take place with a part time, summer college student.

CSIP #14 **Storm Water Management**

CSIP funding could be used by West Orange Department of Public Works to improve the Township's leaf collection and catch basin cleaning equipment.

CSIP #15 **Other**

CSIP funding could be utilized to hire a grants person, to explore regionalization of services or alternate maintenance funding sources.

APPENDIX

20-6.1 through 20-6.7	Protection of Town Trees
Line of Sight Obstructions	20-8.1 through 20-8.2
Maintenance of Sidewalks	20-3.1 through 20-3.2
Property Maintenance	Free of Hazards 14-8.1a1
Tree Protection and Removal	31-1
Tree Policies	

- Maintenance of Curbs and Sidewalks
- Sewer Lateral/Tree Root
- Nuisance Trees
- Tree Removal
- Tree Planting
- Tree Maintenance

file: community forestry management plan 2015 (own folder)

within the sidewalk lines thereof. It is the intent and purpose of this subsection to prohibit all persons from throwing, casting, placing or depositing snow and ice which accumulates within the private property belonging to or occupied by such persons on the sidewalks or streets of the Township. (1972 Code § 5-8.3)

20-6 TREES, SHRUBS, POLES AND POSTS.

20-6.1 Trimming. All trees that stand along public streets and whose branches extend over the sidewalks shall be trimmed under the supervision of the Shade Tree Superintendent so as to prevent impediment to travel and obstruction of street lights. (1972 Code § 5-9.1)

20-6.2 Destruction of Tree or Shrub; Park Property. No person shall cut down, destroy or in any way injure any tree or shrub standing in any public street. No person shall cut down, destroy, break, mar or in any way injure any tree, bush, shrub, bench, chair, pavilion or any other thing or property or building standing in any park or public grounds. (1972 Code § 5-9.2)

20-6.3 Placing Trees or Posts. All ornamental or shade trees or posts placed or set out in any street shall be placed or set out within the ten (10) foot right-of-way or other Township property. (1972 Code § 5-9.3)

20-6.4 Removal of Trees. The Shade Tree Superintendent is authorized to cause any dead tree, and any trees which encumber or obstruct any street or sidewalk, to be cut down or removed. (1972 Code § 5-9.4)

20-6.5 Suspending Wires. No person shall run or suspend in any manner, in, across or through any street any wire of any nature whatever, without first obtaining permission of the Township Council, unless such action is permitted under the laws of the State. (1972 Code § 5-9.5)

20-6.6 Attaching Electric Devices to Trees. No person shall attach any electric wire, insulator or other device for the holding of an electric wire to any tree standing in a street in the Township. (1972 Code § 5-9.6)

20-6.7 Use for Township Wires. The Township reserves the right to use the top cross beam, to be painted a distinct color, of any telegraph, telephone or electric light pole, for the purpose of attaching the wires of any fire alarm, telegraph or Police patrol, which may at any time be adopted and used by it. (1972 Code § 5-9.7)

20-7 CLEANING OF SIDEWALKS, GUTTERS AND OFF-STREET PARKING AREAS.

20-7.1 Duties of Owner, Occupant or Tenant.

a. The owner, occupant or tenant of premises in this Township in front of which there is a sidewalk or an off-street parking area shall keep the same neat and clean, and shall keep the grass and weeds on either side thereof cut to a height not exceeding three (3") inches.

b. The owner, occupant or tenant of premises abutting on any street in the Township shall at all times keep the sidewalk area, off-street parking area and gutters free from all weeds, mud, dirt, sticks, holes, pits, loose stones, leaves, gravel, rubbish, paper, debris and other objects, and shall provide open gutters across or adequate drains under his/her entrance walks or drives, which shall at all times be kept thoroughly open, clean and free from obstructions of all sorts. (1972 Code § 5-3.1)

20-7.2 Failure to Comply; Action by Township. In the event, after three (3) days notice, any owner, occupant or tenant of premises in the Township shall fail to observe the requirements of subsection 20-7.1, he or she shall not only be

liable to the penalty provided for violation of this section but also the necessary work shall be done by or under the direction of the Township Engineer and the cost thereof shall be certified to the Tax Collector. Such cost shall be a lien upon the premises and be recorded and collected in the same manner as the taxes to be levied thereon. (1972 Code § 5-3.2)

20-8 LINE OF SIGHT OBSTRUCTIONS.

20-8.1 Height of Hedges at Intersections. The owner or tenant of any lands in the Township, wherever necessary and expedient for the preservation of the public safety, shall keep all brush, hedges and other plant life growing within ten (10) feet of any roadway and within twenty-five (25) feet of the intersection of two (2) roadways, cut to a height of not more than two and one-half (2 1/2) feet. Such work shall be done within ten (10) days after written notice sent to the last known Post Office address of the owner or tenant by Certified Mail to cut the same. The notice shall set forth the reasons therefor, and shall provide an opportunity to the owner or tenant, within five (5) days of the receipt of the notice, to show cause before the officer sending the notice why the demands made should not be complied with. (1972 Code § 5-4.1)

20-8.2 Failure to Comply; Action by Township. In case any owner or tenant fails or neglects to show cause why such cutting should not be done after proper notice, or fails to cut the same within ten (10) days, as provided in the notice, the Director of Police or his/her agent may, on behalf of the Township, cause such brush, hedges and other plant life to be cut.

The cost thereof shall be certified to the Township Council, which shall examine the certificate of cost and, if found correct, shall cause the cost to be charged against the lands. The amount so charged shall become a lien on the lands and shall be added to and become part of the taxes to be assessed on such lands, shall bear interest at the same rate as taxes and

20-2 SIDEWALKS, GRADES AND STREET WIDTH.

20-2.1 Minimum Width. No street shall be accepted by the Governing Body unless the width shall be at least fifty (50) feet, unless a lesser width is permitted under special conditions provided in this revision. (1972 Code § 22-2.1)

20-2.2 Laying Sidewalks to Conform to Grade. No person shall lay any sidewalk, on any tract or portion of any public street unless the same shall conform to the established grade of the street, and according to specifications adopted at the time by the Township Council. (1972 Code § 22-2.2)

20-3 CONSTRUCTION AND REPAIR OF CURBS AND SIDEWALKS.

20-3.1 Responsibility of Owner. Any person owning, leasing, or occupying any house or other building, or vacant lot, fronting on any street in the Township shall, at his or their charge and expense, sufficiently pave the sidewalk, and maintain in good repair, according to this section, the curb and sidewalk, including the authorized installations in front of the house, building or lot. (1972 Code § 22-3.1; Ord. No. 1328-95 § 7)

20-3.2 Permit Required; Fee. No person shall construct, remove, repair, reset or alter the sidewalk or curb or cause the construction, removal, repair, replacement, resetting or altering of the sidewalk or curb of any public street in the Township, nor store thereon construction materials for the same, without the written permit of the Director of Public Works or his/her authorized representative. A fee shall be charged for the written permit in accordance with the following schedule.

Fee Schedule

Curb and Sidewalk Permit

Length of Curb or Sidewalk *Fee*

Less than or 50 linear feet \$25.00

More than 50 linear feet

\$0.50 per linear foot

Minimum Fee \$ 25.00

Maximum Fee \$100.00

(1972 Code § 22-3.2; Ord. No. 1328-95 § 7)

20-3.3 Standards. All sidewalks and curbs hereafter paved, constructed or repaired, shall be paved in accordance with the "Standard Specifications of the Township of West Orange, adopted March 3rd, 1959" and on file with the Township Clerk. (1972 Code § 22-3.3; Ord. No. 1328-95 § 7)

20-3.4 Rules and Regulations. The following regulations shall apply:

a. *Materials for Repair.* Alterations, restoration, and repair of any sidewalk, shall be made with concrete as specified in the "Standard Specifications of the Township of West Orange," or with the same materials as exist on both sides of the sidewalk in disrepair.

b. *Grade.* Every sidewalk shall at the curbline, be of the same grade as that established for the top of the curb except that where any driveway may cross the same, it shall be the same grade as the top of the lowered driveway curb. From the property line the paved and unpaved portions shall have a uniform slope of at least one-fourth (1/4) inch and not more than one-half (1/2) inch per foot towards the established curbline and grade except that where a driveway crosses the sidewalk, the surface may slope from the top of the lowered driveway curb to meet the normal prescribed sidewalk

of any other ordinance of the Township applicable to any structure or premises, nor shall any provision herein relieve any owner, operator or occupant from complying with any such other provision, nor any official of the Township from enforcing any such other provision. (1972 Code § 16-6)

14-7 CONTRACT NOT TO ALTER RESPONSIBILITIES.

Unless expressly provided to the contrary in this Code, the respective obligations and responsibilities of the owner and operator on one hand, and the occupant on the other, as defined in Sections 14-8 and 14-9, shall not be altered or affected by any agreement or contract by and between them or between them and other parties. (1972 Code § 16-7)

14-8 DUTIES AND RESPONSIBILITIES OF OWNER AND OPERATOR.

Owners and operators shall have all the duties and responsibilities defined in this section and the regulations promulgated pursuant thereto, and no owner or operator shall be relieved from any such duty and responsibility nor be entitled to defend against any charge of violation thereof by reason of the fact that the occupant is also responsible therefor and in violation thereof. (1972 Code § 16-8)

14-8.1 Maintenance of Exterior of Premises.

- a. *Hazards and Unsanitary Conditions.* The exterior of the premises and all structures thereon shall be kept free of all nuisances, and any hazards to the safety of occupants, pedestrians and other persons utilizing the premises, and free of unsanitary conditions; and any of the foregoing shall be promptly removed and abated by the owner or operator. It shall be the duty of the owner or operator to keep the premises free of hazards which include but are not limited to the following:

1. Refuse. Brush, weeds, broken glass, stumps, roots, obnoxious growths, filth, garbage, trash, refuse and debris.
 2. Natural Growth. Dead and dying trees and limbs or other natural growth which, by reason of rotting or deteriorating conditions or storm damage, constitute a hazard to persons in the vicinity thereof. Trees shall be kept pruned and trimmed to prevent such conditions.
 3. Overhangings. Loose and overhanging objects, and accumulations of ice and snow which by reason of location above ground level constitute a danger of falling on persons in the vicinity thereof.
- b. *Ground Surface Hazards of Unsanitary Conditions.* Holes, excavations, breaks, projections, obstructions, and excretion of pets and other animals on paths, walks, driveways, parking lots, and parking areas and other parts of the premises which are easily accessible to and used by persons on the premises. All such holes and excavations shall be filled and repaired, walks and steps replaced, and other conditions removed where necessary to eliminate hazards or unsanitary conditions. Regarding the removal of accumulated snow or ice on private property from paths, walks, driveways, parking lots and parking areas used by pedestrians and automobiles a summons may be issued where the snow or ice remains uncleared within eight (8) hours of daylight after the termination of snowfall.
 - c. *Recurring Accumulations of Storm Water.* Adequate run-off drains shall be provided and maintained to eliminate any such recurrent or excessive accumulation of storm water.
 - d. Sources of Infestation.
 - e. *Foundation Walls.* Foundation walls shall be kept structurally sound, free from defects and damage, and capable of bearing imposed loads safely.

ORDINANCE # 2177-08

AN ORDINANCE REPLACING CHAPTER XXXI OF
THE REVISED GENERAL ORDINANCES OF THE
TOWNSHIP OF WEST ORANGE TO RE-ESTABLISH
TREE PROTECTION STANDARDS IN THE
TOWNSHIP

BE IT ORDAINED BY THE TOWNSHIP COUNCIL OF THE TOWNSHIP OF WEST ORANGE, in the County of Essex, State of New Jersey, that a new Chapter XXXI of the Revised General Ordinances of the Township of West Orange is hereby established to replace the former Chapter XXXI which was invalidated by the Superior Court of New Jersey, Law Division.

Section 1. The Revised General Ordinances of the Township of West Orange are amended and supplemented to add Chapter XXXI to read as follows:

CHAPTER XXXI TREES

31-1 TREE PROTECTION AND REMOVAL

31-1.1 Title.

This chapter shall be known as the "Tree Protection and Removal Ordinance of the Township of West Orange."

31-1.2 Findings and purpose.

A. The Township Council of the Township of West Orange finds that: trees are among the Township's most valuable natural resource assets, greatly enhancing the appearance of the Township and contributing to its suburban residential character; the integrity of Township and regional water resources is substantially affected by development on constrained land (e.g., steep slopes, wetlands and reduced depth to groundwater), tree removal, soil disturbance, storm water management and the general use of land resources; the preservation, protection and planting of trees aids in the stabilization of soil by the prevention of erosion and sedimentation, reduces storm water runoff and the potential damage it may create, increases groundwater recharge thus enhancing the groundwater supply to streams and wetlands and the yield of water supply wells, aids in the removal of pollutants from the air and assists in the generation of oxygen, provides a buffer and screen against noise and pollution, provides protection against severe weather, aids in the control of drainage and restoration of denuded soil subsequent to construction or grading, provides a haven for birds and other wildlife and otherwise enhances the environment, protects and increases property values, conserves and enhances the Township's physical and aesthetic appearance, and generally protects the public health and safety as well as the general welfare.

B. Numerous governmental, professional, educational and business sources have cited the importance of trees to our well-being: "One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen, enough to meet the annual needs of 18 people." (*U.S. Department of Agriculture*). In one study, 83% of Realtors expressed the belief that mature trees have a "strong or moderate impact" on the salability of homes listed for under \$150,000 and on homes listed for over \$250,000 this perception increased to 98% (*American Forests, Arbor National Mortgage*). Healthy, mature trees are said to add an average of ten percent to a property's value (*USDA Forest Service*). "Landscaping, especially with trees, can increase property values as much as 20 percent." (*Management Information Services/ICMA*). "The net cooling effect of a young, healthy tree is equivalent to ten room-size air conditioners operating 20 hours a day." (*U.S. Department of Agriculture*). "If you plant a tree today on the west side of your home, in 5 years your energy bills should be 3% less. In 15 years the savings will be nearly 12%." (Dr. E. Greg McPherson, *Center for Urban Forest Research*). "Trees properly placed around buildings can reduce air conditioning needs by 30 percent and can save 20 - 50 percent in energy used for heating." (*USDA Forest Service*). "In laboratory research, visual exposure to settings with trees has produced significant recovery from stress within five minutes, as indicated by changes in blood pressure and muscle tension." (Dr. Roger S. Ulrich, *Texas A&M University*).

C. It is the purpose of this ordinance to protect and foster the existence and health of trees growing within the Township's borders, to preserve the maximum possible number of trees in the development of a site or lot, to protect specimen trees, to encourage innovative design and grading to promote the protection of existing trees, and to prevent indiscriminate, uncontrolled and excessive removal and cutting of trees, as well as land use activities inconsistent with accepted arboricultural practices, which contribute to the destruction of or permanent injury to trees upon lots and tracts within the Township. The standards and procedures established by this Chapter are intended to furnish criteria for the use of Township boards, committees, commissions and officers in evaluating applications for tree removal and for site plan, subdivision and other land development approvals. They are further intended to inform those with interests in real property in the Township of the requirements to be followed with respect to trees located in the Township. The purpose of this section is to protect trees, the environment, and owners of real property who would be affected adversely by the removal of trees from property belonging to another person. The issuance of permits is a procedure designed to effectuate these goals.

31-1.3 Definitions.

The following definitions shall apply to this chapter:

CONSERVATION EASEMENT - A legal covenant restricting the use of land or natural features of the land that is described in the property deed and shown on a filed plat.

DBH - The measurement of the diameter of the trunk of a tree planted in the ground taken four and one-half (4.5) feet from ground level on the uphill side of the tree

DEVELOPMENT APPLICATION - An application filed with the Township Planning Board or Board of Adjustment pursuant to the Municipal Land Use Law and the Township land development ordinances for approval of a subdivision plat, site plan, planned development, conditional use, zoning variance or direction of the issuance of a permit pursuant to N.J.S.A. 40:55D-34 or N. J. S.A. 40:55D-3.

DRIP LINE - A vertical line extending from the outermost edge of the tree canopy or shrub branch to the ground beneath.

ENDANGERED OR THREATENED SPECIES - Any species of tree or animal which has been determined by the Federal Fish and Wildlife Service or the State of New Jersey to be endangered or threatened.

IMPROVED LOT - a single parcel of land with a residential or commercial structure, that is occupied pursuant to and in compliance with all applicable laws and regulations.

LAND USE BOARD - the Planning Board or Zoning Board of Adjustment of the Township of West Orange.

MAJOR TREE - A tree species with a mature height of at least 50 feet, which shall be at least a 2.5 inch caliper at the time of planting.

MINOR TREE - An evergreen tree, ornamental tree or other small tree at least six feet in height at the time of planting.

NON-VIABLE TREE - A tree that the Officer certifies is dead, dying, diseased or too damaged to survive.

OFFICER--- the person primarily responsible for enforcing this Ordinance and who is qualified to do so by having the status of a New Jersey Approved Forester, New Jersey Certified Tree Expert, or an International Society of Arboriculture Approved Arborist, employed by, or appointed by, the Township of West Orange to implement this Ordinance and to carry out other related responsibilities as the Township may provide,

including, but not limited to, developing and recommending to the Council a Township Woodlands Retention and Protection Plan and a Township Tree Inventory and Planting Schedule.

PERSON — The owner of a parcel of real estate or any other individual, group, company, firm, corporation, partnership, association, society or other legal entity.

QUALIFIED TREE EXPERT — a New Jersey Approved Forester, New Jersey Certified Tree Expert, or International Society of Arboriculture Approved Arborist.

REPLACEMENT TREE — A tree of a species approved by the Officer and of nursery grade, properly balled and burlapped, meeting the minimum measurements of a Major or Minor Tree, respectively.

SPECIES — The common name of a tree.

SPECIMEN TREE — A tree in good health of unusual or exceptional form, size, age or shape for its species as evidenced by its inclusion in New Jersey's Big Tree List, or data base, published and coordinated by the New Jersey Forest Service, or having a Champion Tree point total (girth in inches plus height in feet, plus one quarter of average crown spread in feet) within ten (10%) of the point total of a tree of the same species listed in New Jersey's Big Tree List, published in "New Jersey's Big Trees", by the New Jersey Forest Service.

STRUCTURE — A combination of materials to form a construction for occupancy, use or ornamentation, whether installed on, above or below the surface of a parcel of land.

TREE — A self-supporting single-stem perennial woody plant having a diameter of at least four inches measured at a point 4.5 feet (or 54 inches) from the ground at the base of the tree on its uphill side.

TREE CANOPY — The top layer or crown of a mature tree.

31-1.4 Permit required; prohibitions and exemptions.

A. Permit. Any person desiring to cut down or remove a tree shall file an application for a tree removal permit issued pursuant to this Chapter, and shall not commence the cutting down or removal of any tree without first having been issued a permit.

B. Prohibitions. Notwithstanding Subsection (A) above, no person shall be permitted to do any of the following:

- (1) Cut down or remove any tree within wetlands, flood hazard areas, riparian zones, or other areas protected by State or Federal law or applicable EPA or NJDEP regulations;
- (2) Cut down or remove any tree within a conservation easement;
- (3) Engage in activities which could cause a tree to die, including but not limited to topping, grade cut or fill, soil compaction within the drip line, chemical contamination, excessive drainage alterations or mechanical damage.
- (4) Cut down or remove any tree on a slope of fifteen (15) percent or greater in grade or on a slope where vegetation is presently stabilizing soils where a tree removal permit is submitted in connection with a development application, or a parcel upon which a new development is contemplated.

C. Exemptions. The following are exempt from the permit requirement of Subsection (A) above:

- (1) For purposes of administrative convenience, up to three (3) trees may be removed on an improved lot within any 365 day period. For enforcement and record-keeping purposes, every person removing one or more trees pursuant to this exemption shall file a tree removal report with the Officer on a form to be provided by him or her, to document the tree(s) removed and date of removal. The tree removal report shall be filed within five (5) days of removal of the tree(s).
- (2) Cutting down or removal of a non-viable tree, or a tree that is an immediate hazard to structures or human life or property; and
- (3) Activities lawfully conducted on public lands or rights-of-way by or on behalf of a local, county, state, federal or other governmental agency or entity, or a utility company.
- (4) Tree removal in conjunction with a Woodland Management Plan(s) approved by the N.J. Forest Service.
- (5) Tree removal on a golf course which is greater than seventy-five (75) feet from a property boundary.

D. Development Applications. With regard to every Development Application that involves proposed tree removal, the applicant shall:

- (1) Schedule a meeting with the Officer in connection with the Development Application for the purpose of evaluating the impact of this Chapter on the plans for development;

- (2) Submit a qualified tree expert's report setting forth a tree removal and tree replacement plan when applicable.

31-1.5 Application procedure.

- A. Every application for a tree removal permit shall be made by submission of the following:

- (1) An original and two copies of an application on forms provided by the Township containing the following information: the name and address of the applicant; the street address and tax lot and block of the property in question; and the number of trees proposed to be removed;

- (2) The submission of such additional information as the Officer may require to assist him in the processing of the tree removal permit.

- B. Upon request, the Officer shall assist any person who desires to apply for a tree removal permit with completing the application required by this Section.

- C. Every development application shall include a tree removal plan which shall include a map drawn to scale showing the location of all trees to be removed and a qualified tree expert's report addressing factors and the standards set forth in Section 31-1.7.

- D. The applicant shall clearly mark, in a manner approved by the Officer, the trunk of each tree proposed to be removed at a height of 4 1/2 feet above the ground so that such tree or trees may be inspected more easily by the Officer.

31-1.6 Fees.

- A. Except as provided below, the basic, nonrefundable fee for processing a tree removal permit application for an improved lot which is not the subject of a development application shall be \$25.00, intended to cover such processing costs to the Township as a pre-application meeting, review and evaluation of the application, requisite site inspections, and communications with the applicant including those relating to issuance or denial of a tree removal permit.

- (1) Fees shall be waived for non-viable trees, as certified by the Officer.

- B. In the case of an application for a tree removal permit related to a development application, the nonrefundable fee shall be \$300, intended to cover the same costs to the Township stated in paragraph A. of this section.

31-1.7 Procedures, factors and standards for application review and approval.

- A. **Site Inspection.** Within twenty (20) days after receipt of an application for a tree removal permit, the Officer shall communicate with the applicant and arrange for a site inspection. Submission of the application shall be deemed consent for the Officer to enter onto the property on which the tree(s) to be removed is located during normal and reasonable business hours, but reasonable efforts should be made for the applicant to be present to answer the Officer's questions and also to provide an opportunity for the Officer to provide advice about the condition, value and recommended care of all of the trees on the applicant's property to better meet the educational purpose of the ordinance. The Officer's inspection should confirm the location of the tree(s) sought to be removed, the reason(s) for the removal request, should note any risk factors for other trees on the property, and the likelihood of potential problems, such as increased soil erosion, water runoff, drainage problems, the presence of bedrock or steep slopes, and safety concerns on the subject property and on adjoining property, and make other appropriate officials aware of those potential problems and concerns. Any permit not acted upon within a period of twelve (12) months after issuance shall become null and void.
- B. Factors to be considered where tree removal is sought, in deciding whether to issue a tree removal permit in connection with a development application, the Land Use Boards shall consider the following factors and in deciding all other applications, the Officer shall consider the following factors:
- (1) Whether the proposed cutting down or removal would impair the growth and development of the remaining trees on the applicant's property or on adjacent properties;
 - (2) Whether the proposed cutting down or removal would change existing drainage patterns;
 - (3) Whether the proposed cutting down or removal would allow soil erosion or would increase dust;
 - (4) Whether the proposed cutting down or removal would increase the amount of storm water runoff on other properties in the area, whether contiguous or not;
 - (5) Whether the proposed cutting down or removal would constitute a significant change in the screening between existing or proposed buildings or roads on the site and adjacent land or in the wooded aspect of the lot as viewed from any adjacent public road;
 - (6) Whether the proposed cutting down or removal would constitute a horticulturally advantageous thinning of an existing over-grown area or the removal of dead or diseased trees;
 - (7) Whether proposed changes in the topography of the area where such tree(s) are located will create conditions, which may be injurious to the trees or other

trees located nearby so as to require welling, construction of an aeration system, or tree removal or replacement; and

(3) Whether the proposed cutting or removal would remedy a safety hazard to persons or structures.

C. Review Standards to be applied where tree removal is sought. A tree removal permit may only be granted subject to the following terms and conditions:

(1) Applicant shall demonstrate that:

(a) To the greatest extent possible, existing vegetation shall be preserved;

(b) To the greatest extent possible, specimen trees and other large trees (ten inch DBH and greater) shall be preserved;

(c) On all residential lots existing natural screening and woodlands between lots, along property lines and between buildings shall be preserved to the greatest extent possible;

(d) Suitable habitats shall be preserved for species of animals (including migratory animals) that are designated as endangered or threatened by Federal or State governmental authorities to the greatest extent possible;

(2) The appropriate Land Use Board must make an express finding that the tree removal proposed by the applicant will not result in or cause, increase or aggravate any or all of the following conditions:

(a) impaired growth or development of remaining trees or shrubs on the property of the applicant or upon adjacent property;

(b) soil erosion, sedimentation and dust;

(c) stormwater or drainage problems;

(d) significant diminution of the screening between existing or proposed buildings or roads on site and adjacent land or in the wooded aspect of the lot or site from any adjacent road;

(e) sewerage problems; or

(f) dangerous or hazardous conditions.

31-1.8 Approval of a permit and tree replacement requirement

A. To approve a tree removal permit connected with a development application or a proposed new development project, the Land Use Board also must find the following:

(1) At least thirty (30) percent of the trees on each particular lot or development site shall be preserved;

- (2) All other applicable ordinances and Federal and State statutes and regulations have been complied with.
- B. Any tree removal permit in connection with a development application or a proposed new development project shall specify that no trees may be removed until after installation by the applicant of stormwater runoff controls and Soil Erosion measures that are required by this ordinance, by Title 7, Chapter 8, Section 7:8-5.4 and by Title 2, Chapter 90, Subchapter 1 of the New Jersey Administrative Code, respectively.
- C. If the application for tree removal is not the subject of a development application, the Officer shall decide within sixty (60) days of the submission of a completed tree removal permit application whether or not to grant the tree removal permit and shall promptly notify the applicant and any objectors. However, where the application is made in connection with a development application, the decision on the application for a tree removal permit shall be made by the Land Use Board and, if the application is granted, the permit shall be issued by the Officer.
- D. Immediately after a decision is rendered granting a tree removal permit, the applicant shall visit the site and clearly mark each tree that has been approved for removal. In the case of a new development, the applicant must give the Officer notice of when the tree removal is proposed to take place at least two (2) weeks in advance. If the officer cannot be present on the day or days proposed for removal, he shall designate days for the removal when he can be present, which shall be binding on the applicant. The officer shall be present on the site to monitor all cutting and removal of trees, in order to ensure that only those trees which he authorized to be cut down and removed are cut down and removed and that all trees which he required to be preserved are preserved.
- E. No tree cutting or removal may take place in connection with a new development unless the Town Engineer has inspected the site and certified that all soil erosion and sediment controls and stormwater runoff controls required by this ordinance and applicable State law have been installed and completed. Copies of the certification shall be delivered to both the applicant and the Officer by the Town Engineer immediately after it is made.
- F. Permits granted under this Chapter shall run with the land and shall remain in force and effect for twelve (12) months from the date of issuance.
- G. Tree replacement, as approved by the Officer, Land Use Board, or Township Engineer, shall be required on the removal site as follows:
- (1)(a) To the greatest extent possible, for each tree removed pursuant to the standards of this Ordinance of a DBH of four inches to no more than six inches, the applicant shall plant a major or minor tree as defined in this Ordinance on the removal property; and
- (b) To the greatest extent possible, for each tree removed pursuant to the standards of this Ordinance of a DBH of more than six inches, the applicant shall plant a major tree as defined in this Ordinance on the removal property.

(2) In the case of a permit in connection with an improved lot, no tree replacement shall be required.

(3) Tree replacement required by this Chapter shall be completed within two (2) years of tree removal unless the Officer grants an extension until the next appropriate planting season if necessary.

(4) In no instance is tree replacement to be considered a penalty, but rather it implements the purposes of this Ordinance. Tree replacement shall not be a substitute for, but shall be in addition to, any penalty imposed for violation of the provisions of this Ordinance.

31-1.9 Protection of existing trees.

- A. In connection with any construction, prior to the issuance of a building permit or start of construction, snow fencing or other protective barriers acceptable to the official charged with the administration and enforcement of this chapter shall be placed around trees that are not to be removed. The protective barriers shall be placed beyond the drip line, but in no event less than ten (10) feet from the trunk, of any tree and shall remain in place until all construction activity is terminated. No equipment, chemicals, soil deposits or construction materials shall be placed within any area so protected by barriers. Any landscaping activities subsequent to the removal of the barriers shall be accomplished with light machinery or hand labor.
- B. No person shall:
- (1) Cut down or remove any tree, except as permitted by this Chapter, or allow or cause such cutting or removal;
 - (2) Cause or allow any willful damage, injury or disfigurement of any tree growing within the Township. For purposes of this Subsection, the actions of any person shall be deemed willful if the damage, injury or disfigurement of any tree is caused as the result of but not limited to the following: cutting, gashing or slitting of any tree; the pouring of any liquid or other material on any tree; or on the nearby ground; the construction or placement of any nonporous material on the ground around any tree so as to cut off air, light or water from the roots; or placement or removal of any soil from within the drip line, but in no event less than ten (10) feet from the trunk, of any tree;
 - (3) Store or pile building material or debris or place construction equipment within the drip line, but in no event less than ten (10) feet from the trunk, of any tree.
- C. If any tree to be saved in connection with construction as set forth above or any replacement tree planted pursuant to this Chapter shall die within two (2) years it shall be replaced by the applicant or the property owner within

six (6) months.

31-1.10 Administration and enforcement.

A. In administering and enforcing this Chapter, the Officer, the Township's Construction Official, Zoning Officer, Town Planner, Engineer, Chief of Police, or any other Township Officer or Designee, is hereby empowered to issue stop work orders whenever a claimed violation of this Chapter is witnessed or reported.

31-1.11 Violations and penalties.

A. Any person who violates any provision of this Chapter shall, upon conviction thereof, be punishable by up to the maximum penalties prescribed by N.J.S.A. 40:49-5, establishing maximum penalties for violation of municipal ordinances generally, and as the same may be amended, the maximum penalties at the time of passage of this Ordinance being a fine not exceeding \$ 2,000 or imprisonment for a term not exceeding 90 days, or a period of community service not exceeding 90 days, or any or all of those penalties, and each tree removed or damaged in violation of this chapter shall be deemed a separate offense. However, if a person is convicted of removing a specimen tree without a permit, he shall be punished by a fine which shall be a minimum of \$100 or the highest minimum fine then allowed by N.J.S.A. 40:49-5, and up to the maximum fine then allowed, or by imprisonment for a term not exceeding 90 days, or both.

B. In addition, any person who cuts or removes a tree in violation of this Chapter shall be required to plant a replacement tree on the removal site pursuant to Subsection 31-1.8 of this Chapter. If the tree that was illegally removed was a major tree, he must replant a major tree. If the tree that was illegally removed was a minor tree, he must replant a minor tree.

C. The removal of a tree in violation of this Chapter shall automatically suspend any existing tree removal permit(s) associated with a property and freeze the issuance of any future permits until the matter has been resolved and any required tree replacement has been completed.

31-1.12 Severability

If any part of this Ordinance is determined to be invalid, such part shall be severed and its invalidity shall not affect the remaining parts of this Chapter.

31-1.13 Repeal of Inconsistent Ordinances. Any and all parts of ordinances which are inconsistent with any of the terms and provisions of this Ordinance be and the same are hereby repealed as to and to the extent of such inconsistency.

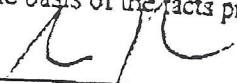
31-1.14 Effective Date. This Ordinance shall take effect upon final passage and publication as required by law.

Adopted:


Renard E. Baeres, Council President

Approved: 
John F. McKeon, Mayor

Approved as to form and legality on
The basis of the facts provided.


Richard D. Trenk, Township Attorney

First Reading: July 15, 2008

Second Reading: August 12, 2008

LEGISLATIVE HISTORY

This Ordinance replaces the previous Chapter XXXI of the Code of the Township of West Orange, enacted in 1972, amended several times thereafter, and which also regulated the removal of trees. That Chapter was nullified on July 26, 2007, by an Order entered that date by the Superior Court of New Jersey, Law Division, Essex County, granting partial summary judgment to plaintiff in the case of West Essex Highland, Inc., Plaintiff, v. Planning Board of the Township of West Orange, and Township Council of the Township of West Orange, Docket No. ESX-L-4102-06.

MAINTENANCE OF CURBS AND SIDEWALKS

To all property owners in the Township of West Orange:

The maintenance of sidewalks is covered Ordinance 20-3.1 through 20-3.2 the code of the Township of West Orange.

The Ordinance in its entirety may be viewed by accessing the Township website at www.westorange.org

The Ordinance places the responsibility for the installation, repair or replacement of curbs and sidewalks upon the abutting property owner according to prescribed Township standards.

It should be understood by abutting property owners that according to Ordinance 20-3.1 through 20-3.2 they are still responsible for the maintenance of all abutting sidewalks and will be fully liable for tripping or falling incidents arising from improper sidewalk maintenance.

The funding of these repairs is not performed on a regular basis and is designed to provide relief to abutting property owners under extenuating circumstances and specifically where sidewalks are uplifted 1" or more in height.

Property owners may request to be included in the next Township sidewalk repair program by contacting the Engineering Department (973) 325-4160) but are advised that the Township makes no commitment that this work will actually be completed as sidewalk repair is only conducted by the Township to the extent that funding is appropriated.

Occasionally the Township Council has appropriated funds to repair or replace curbs and sidewalks. This work is performed in conjunction with road resurfacing projects and done only when funding is available.

The fact that a particular address is on a list is no guarantee that the work will be executed within a specific time frame or in fact will ever be executed.

Property owners who have received notice from their insurance companies or from Property Maintenance in regard to hazardous sidewalk conditions should immediately proceed with making sidewalk repairs according to Township standards. A permit is required and property owners or contractors are prohibited from removing or cutting Township trees, but may request assistance from the Public Works Department to prune or sever offending roots.

The procedure would be as follows:

1. Arranging for the removal of the uplifted slabs and exposure of the offending roots on a Monday through Thursday in the early morning hours.
2. Contacting the Public Works Tree Foreman Gary Braus at (973) 325-4067 at least 48 hours before work is to be conducted and confirm a date for the work to be conducted.

TOWNSHIP OF WEST ORANGE, NEW JERSEY 07052
DEPARTMENT OF PUBLIC WORKS

Specifications for root pruning, shaving or removal:

All sidewalk sections requiring root pruning, shaving or removal, shall be done in the following manner:

- No primary supportive (structural) roots 6" or greater may be severed without the authorization permission of the Forester or Shade Tree Supervisor.
- In any and all cases, root pruning, shaving or removal must be performed or supervised by the Department of Public Works.
- Root prunings is always preferred over severing and in all cases root removal, shaving or pruning should be minimized.
- Sidewalk placement may be offset to avoid contact with buttress roots removal, shaving or pruning should be minimized
- Sidewalks should not be repoured within 6" of existing or recently shaved tree roots.
- All root pruning, shaving or removal shall be performed with a stump grinder or with hand tools.
- No roots shall not be pruned, shaved or removed by a motor driven excavator.
- The contractor shall report any observed tree instability to the Township Engineer who will arrange for the immediate removal of the tree.
- Permits and specifications for sidewalk replacement may be obtained at the Engineering Department at the Department of Public Works, 25 Lakeside Avenue, West Orange.

John Linson, Forester

Gary Braus, Shade Tree Supervisor

TOWNSHIP OF WEST ORANGE SEWER LATERAL/TREE ROOT POLICY

It is the responsibility of each property owner to maintain sanitary sewer laterals from their buildings out to the T-connection in the street with the main trunk line.

Sewer laterals were formerly constructed of clay tile or cast iron pipe.

Unlike the plastic sewer pipe used today, joints of clay tile or cast iron pipe typically leak and are prone to ground water and root intrusion.

It is the policy of the Township of West Orange that sewer blockage occurs because of a collapsed pipe, wrong pitch, or an accumulation and intrusion of tree roots in an out dated sewer lateral.

The Township encourages property owners to replace defective sewer laterals, as that is the only permanent solution to these problems.

Township trees will only be removed as an absolute last resort when a property owner provides the sewer supervisor with a sewer lateral, replacement contract and it is apparent to the Township Forester, Township Public Works Supervisor, and Shade Tree Supervisor that the removal of tree roots in conjunction with the sewer lateral replacement will cause the death or instability of the tree.

The following policy applies to all other situations where property owners are not inclined to the replacement of their defective sewer line.

The Department of Public Works encourages property owners to use an approved aquatic herbicide on an annual basis to kill roots and inhibit their growth for a one-year period after providing proof that the sewer line has been rodded and all intruding roots have been cut by a licensed plumber.

TOWNSHIP OF WEST ORANGE
DEPARTMENT OF PUBLIC WORKS

NUISANCE TREES

Trees are a part of the infrastructure of our public right-of-way. Similar to asphalt paving, curbing, or storm or sanitation lines, they have associated maintenance costs and ultimately a useful life span.

Unlike other items of infrastructure, trees are alive. Sometimes interference can occur between trees and other infrastructure components especially if these components have structural or design deficiencies.

Subsequent to frost heaving, tree roots will displace sidewalk slabs and curbing. Tree roots also will intrude leaking sewer laterals. Frequently the low oxygen levels in high water tables or compacted soils force tree roots to grow at or near the soil surface. In such force tree roots to grow at or near the soil surface. In such situations, trees could be considered a nuisance.

It is the policy of the Township of West Orange Department of Public Works to only remove trees that meet the following criteria:

1. The tree is dead.
2. 20-30% of the tree crown had declined and it is aesthetically unattractive.
3. The tree has structural deficiencies.
4. The tree has been repeatedly cut back by Public Service Electric & Gas line clearance crews, rendering it unattractive or unsustainable.
5. Sidewalk, driveway apron or curbing improvements necessitate the removal of an excessive amount of roots, thus making the tree unstable or bring about its premature demise.
6. The presence of the tree in some way compromises public health, safety of general welfare.

In situations where individuals strongly desire the removal of trees which are not dead, dying or unsafe, the following policy shall apply:

- In all nuisance cases, the Township retains the right to determine whether a tree can or cannot be considered for removal.
- The property owner shall direct a letter to the Township Engineer requesting permission to remove the tree and stump. The situation will be reviewed and a decision will be rendered at the next scheduled meeting date.

Upon receiving written authorization from the Township of West Orange Engineering Division,

the owner may proceed with the tree removal pursuant to the following conditions:

1. The property owner will be responsible for the full cost of tree, stump and debris removal.
2. The Township of West Orange is to be held harmless from any damage that could possible be sustained by the tree removal.
3. Tree removal must be conducted by a fully insured Tree Removal Contractor. Certification of Insurance must be attached to hold harmless statement.
4. The Tree Removal Contractor shall comply with all State A.N.S.I. line clearance standards.
5. The Tree Removal Contractor shall notify the West Orange Police Department prior to the temporary closing of any Township street required for the safe removal of a Township Tree.
6. The property owner shall supply and install a suitable replacement tree. The species, size and location shall be approved by the Department of Public Works.

TOWNSHIP OF WEST ORANGE
TREE REMOVAL POLICY

The following criteria is used in making tree removal determinations:

1. The tree is dead.
2. 20-30% of the tree crown has declined and it is aesthetically unattractive.
3. The tree has structural deficiencies.
4. The tree has been repeatedly cut back by Public Service Electric & Gas line clearance crews, rendering it unattractive or unsustainable.
5. Sidewalk, driveway apron or curbing improvements necessitate the removal of an excessive amount of roots, thus making the tree unstable or bringing about its premature demise.
6. The presence of the tree in some way compromises Public Health, safety or general welfare.

A notification letter is delivered to reach out to each resident adjacent to a tree designated for removal informing them that the tree will be removed over the next few weeks and that they should call the Department of Public Works if they are interested in having a replacement tree installed.

The actual number of trees marked for removal fluctuates from year to year, but usually is between 1-2% of the total tree population. The presence of environmental stress such as a severe winter or drought or an insect or disease infestation can significantly increase tree mortality.

The Department of Public Works recognizes A Photographic Guild to the Evaluation of Hazard Trees in Urban Areas published by the International Society of Arboriculture as its' official standard for identifying structural deficiencies in street trees.

TOWNSHIP OF WEST ORANGE

The Department of Public Works has adopted the following policy pertaining to:

A. Tree Planting:

1. That wherever possible, tree removals will be replaced.
2. That it is recognized that promoting species diversity is a control for epidemics of insects and disease and that monoculture planting be avoided.
3. That such plant site constraints as planting belt width, overhead and underground utilities, sidewalks, curbs, soil and moisture conditions, setbacks, traffic visibility, spatial arrangement, signage, awnings etc. be considered in all planting selections and that the following standards be followed:
 - a. No planting within 35' of a stop sign.
 - b. No planting within 25' of an intersection.
 - c. No planting within 50' of another tree.
 - d. No planting within 10' of an underground utility.
 - e. No planting within 12' of a driveway apron or utility.
 - f. Aggressive species exceeding 25' in height at maturity shall not be planted under above ground utilities.
 - g. Trees for N.J. Streets published by N.J. Shade Tree Federation shall be the standard for determining species suitability for planting belt widths.
4. That wherever possible, replacement species shall be selected to maintain the existing character of the neighborhood.
5. That all plantings conform to the American Association of Nurserymen's Planting Standards.
6. That wherever possible consideration be given to residents' preference in the species selection and planting and planting location of replacement trees.

B. Tree Maintenance

1. That residents be provided with watering instructions for new plantings during the first year following installation.
2. That life threatening insects and disease problems be controlled as necessary.
3. That life threatening insect and disease problems be controlled as necessary.
4. That residential, commercial and municipal historic and specimen trees be preserved wherever possible.
5. That an inventory of Township street trees be maintained for management purposes.
6. That work be scheduled by priority.

- a. Top Priority shall include the following:
- The removal of potentially dangerous dead, dying, diseased or structurally weak trees or topping out same to make them safe.
 - The removal of large, dangerous, broken and or hanging branches.
 - The removal of low branches which create a visibility, traffic or pedestrian hazard.
- b. Medium Priority shall include the following:
- The pruning and removal of deadwood conditions.
 - Spraying for insect and disease problems.
 - The removal of sticks and stumps.
 - The pruning of branches interfering with street lights, above ground utilities, structures, etc.
- c. Low Priority shall include the following:
- Pruning for aesthetic reasons.
 - Non-safety related tree removals, pruning and stump removals, etc.
7. That when a resident specifically requests a replacement tree and the only possible planting location is the exact location of the previously removed tree, the stump shall be ground out to the maximum possible depth, that all the resulting woodchips be removed and that the resulting hole be filled with topsoil prior to attempting to plant the replacement tree.