



DIRECTIONS
FOR THE
PLANTING AND CARE
OF
STREET TREES

APPROVED BY THE
COMMISSIONERS
OF
FAIRMOUNT PARK



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Advantages of Municipal Control. That the people of Philadelphia desire street trees is shown by the 127,301 trees now growing in our streets—fully 120,000 of them having been planted by individuals. Unfortunately, so many of these trees are in bad condition or scattered over a large area, that we have few handsome tree-lined avenues. This condition exists in all cities where the planting and care of the trees is left to the individual property owners. Where any planting is done, one man may plant a poplar, his neighbor a plane; one man may prune his tree closely, and the next neglect his entirely, each following his own ideas. The result is a haphazard, unattractive arrangement, which in a city street is incompatible, not only with beauty, but even with neatness. The new law, which places the street trees under municipal control, is designed to correct these defects. A similar law has been in effect in New Jersey for some years with such good results, that many cities have adopted it. In Pennsylvania, Pittsburgh and Wilkesbarre have already accepted it and are securing excellent results. Under its provisions street trees can be planted, protected and cared for in a sys-

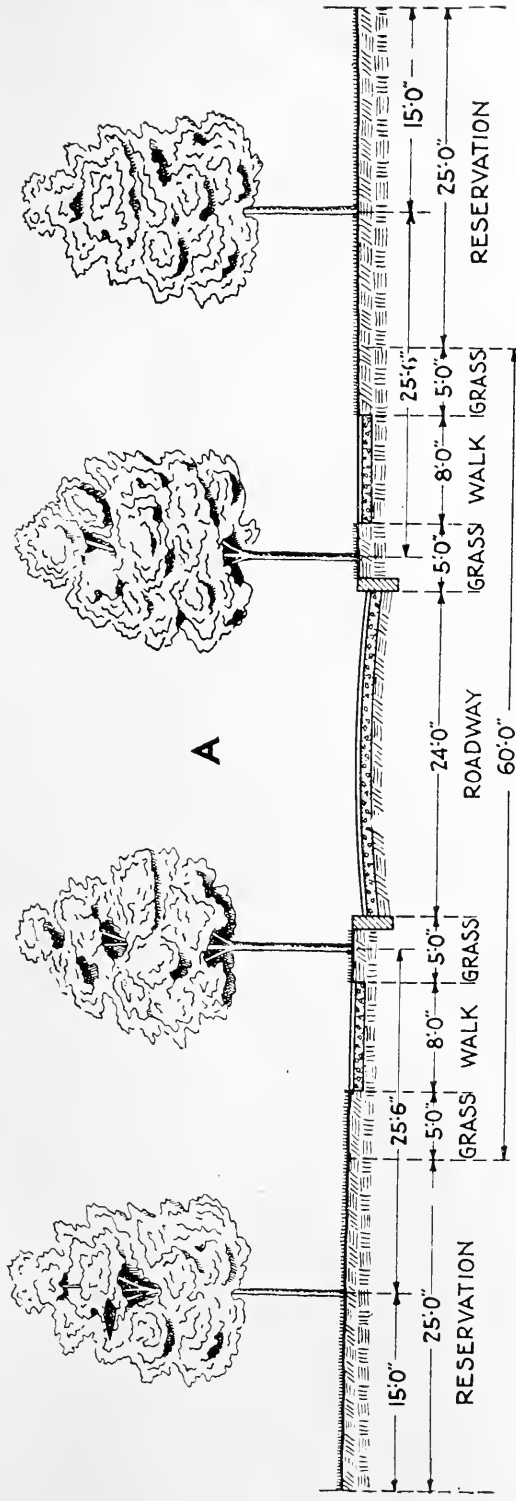
tematic way more cheaply and efficiently than would be possible by individual effort. The work can be done at less cost, because the trees and all other materials are purchased in large quantities at low wholesale rates. The work can be done more efficiently, because done by trained experts, devoting their entire time to the planting and care of street trees.

Conditions Necessary for Successful Tree Growth. Handsome street trees will grow only where the roots have air, water and good soil. Trees may live for a time without one or more of these necessities, but growth will be poor and the life of the tree short. In some streets, particularly in the suburbs, fertile top-soil exists under the sidewalks, but more often it does not, the ground being too sterile to support even a blade of grass. Where bad soil exists, a large hole must be dug and the poor material replaced with one or two loads of good loam. To allow water and air to reach the roots concrete pavements must be kept several feet away from the base of the tree. A continuous grass or gravel planting strip from three to six feet wide is the ideal arrangement for street trees and should be provided where the best trees are desired.

Kinds of Trees Suitable. Only a few kinds of trees will grow satisfactorily in our streets. The Carolina poplar and silver maple, the most frequently planted trees in Philadelphia, are almost entirely unsuited to the purpose. They are both short-lived, weedy trees, which require constant topping to prevent them from becoming dangerous, and their soft, brittle wood decays readily. The roots invade and clog drain pipes and heave sidewalks.

Good trees for street planting are the oriental plane, pin oak, ginkgo and Norway maple. The plane will thrive, where few other trees grow, and it may be pruned into any

SUGGESTED CROSS SECTIONS ~ 110 FOOT STREET



First form of improvement

Width of 60 ft only to be opened where restriction can be imposed.

Plan for the layout of streets 110 feet in width, with two rows of trees on each side.

desired shape or size, thus fitting it for either wide or narrow streets. The other trees require more moisture and larger open spaces about them, but have darker green foliage and cause less litter on the pavement, as they do not shed their bark, like the plane. In the suburban section tulips, sugar maples, scarlet and red oaks, sweet gums, ashes and Crimean and silver lindens make excellent street trees.

Carefully grown nursery trees, with straight stems and an abundance of fibrous roots, are alone suitable for street planting, as only such trees are likely to thrive and make well balanced specimens, and to secure handsome, even rows only one kind of tree must be planted on a street for a series of blocks. The trees should be planted at least twenty-five or thirty feet apart to allow sufficient sunlight and air for their proper development.

Tree Guards. Where a tree stands near a curb, a tree guard is required to protect the trunk from horses' teeth. Many thousands of the existing trees have already been ruined for want of the proper tree guards. A cheap and efficient tree guard is made of heavy wire mesh, a good but more expensive one of iron rods.

Allowing a tree guard to remain, after the tree has outgrown it, has caused the death of thousands of our trees. The expanding trunk in such cases is girdled by the guard and the flow of sap cut off.

Planting by the Commission. It is the intention of the Commission to plant a certain number of streets each year with trees, protecting each tree with a guard. Residential streets only will be selected, and the wider streets first. Where there are existing unsightly, decayed or dangerous trees on these streets, they will be removed and replaced with new ones. The removing of the condemned



Tree girdled by iron band
from old box.

trees and the planting and protecting of the new ones will be charged to the property owners at cost.

Care of Trees After Planting. For the first two or three seasons a newly planted tree requires much attention. Even if transplanted with care, many roots will be cut, and, unless those remaining are kept well supplied with water during the dry summer months, the tree will die for lack of nourishment. A soaking watering once a week should, therefore, be given during the dry weather. The ground about the tree should also be loosened occasionally to enable the air to circulate through the soil. The Commission expects to water, cultivate, prune, spray and care for newly planted trees with funds provided by the City Councils. The property owners' individual responsibility for the trees ends with the planting. The trees will thus, as has been said before, become an asset or permanent improvement to the property, and one which should increase in value yearly.

Isolated Planting and Removal. The Commission is not prepared at present to plant isolated trees for individual property owners. In such cases permits will be issued to the property owners with specifications covering the work to be done. Similar permits will be granted to those who desire to remove dead or undesirable trees themselves, rather than wait until the Commission's force is working in their section of the City. In all such cases the Commission will detail inspectors to superintend the work.

The Commission's tree census record, which shows the location, character and condition of all the existing street trees, will enable them to answer promptly all inquiries regarding the planting or care of trees.

Care of Existing Trees. The existing trees will be pruned, sprayed, cleaned and put in order by the Commis-

sion as rapidly as funds will permit. Unfortunately, a considerable number of the existing trees are in such bad condition that they will have to be removed. In the replanting of the City, Carolina poplars and silver maples will also be removed gradually, to permit the systematic planting of better trees. To prevent the further injury of existing trees each tree will be provided with a tree guard. While the law directs that the cost of tree guards and of planting and removing trees is to be charged to the property owners, the latter will be given the opportunity, if they so desire, of making their own arrangement, subject to the approval of the Commission, for this work, otherwise the Commission will do it at cost. Emergency work will be done by the Commission.

Injurious Insects. Injurious insects are responsible for the poor condition of many of the trees. The tussock moth caterpillar, imported originally from Europe, has been for a generation a scourge to the trees in Philadelphia. Swarming over the foliage in the early summer, they devour the leaves with amazing rapidity. While this does not kill the trees immediately, it weakens them seriously and in time causes their death. As these caterpillars remain over winter on the trees in the egg state, they may be readily destroyed by gathering the conspicuous masses of white eggs. Many may also be killed in the summer by spraying with arsenate of lead. Both methods will be used by the Commission. In the spring, banding the trunks of the trees with "tanglefoot" is helpful, if the trees have first been cleaned of all eggs. The plant lice, which attack the plane, Norway maple and other trees, sucking out the sap from the leaves or twigs and letting it fall as a sticky deposit on the pavement, can best be destroyed by spraying with a kerosene emulsion or whale oil soap. For the various scale insects, which attach themselves to the limbs

of the oak, ash, silver maple, elm and other trees, spraying with whale oil soap, when the young are hatching out in the spring, is a safe and effective remedy. Winter spraying with oil solutions gives excellent results, but should be attempted only by experts, because of the danger of injuring the trees. Lime and sulphur, the familiar spray of the farmer, can seldom be used on street trees, owing to the danger of defacing adjacent property or the clothing of passersby.*

In pursuance of the authority conferred upon them by law for the care of the trees and their protection against injury the Commissioners have adopted the following:

REGULATIONS

For the Protection of Street Trees.

1. No tree shall be pruned, sprayed, planted in, cut down or removed from any highway in the City of Philadelphia without authority from the Commissioners of Fairmount Park.

2. No person shall climb upon, cut, break, bark or otherwise injure or disturb any tree, tree-guard or support thereof on any highway in the City without authority from said Commissioners.

3. No person shall fasten any horse or other animal to any tree, tree-guard or support thereof, or leave any animal fastened or unfastened within reach of any tree, tree-guard or support thereof on any highway in the City.

4. No person shall attach any guy-rope, cable, wire or

*Much cognate and interesting information will be found in the 24th Annual Report of the City Parks Association of Philadelphia (1912), and it is recommended that it be read in conjunction with this report.

other fixture to any tree, tree-guard or support thereof on any highway in the City.

5. No person shall fasten or maintain any placard, sign, advertisement or other notice on any tree, tree-guard or support thereof on any highway in the City.

6. No person shall deface, injure or remove any copy of the Regulations for the Protection of Street Trees or other notice posted on any highway or other public place in the City by authority of the Commissioners of Fairmount Park.

7. No pavement of any kind shall be laid within a space of three feet by four feet around any street tree, and no stone, gravel, cement, lumber or other material shall be deposited upon such unpaved area. Such unpaved space must be maintained permanently and continuously about the base of the trunk of each street tree.

8. Every person or corporation violating any of the foregoing regulations shall pay a fine or penalty of five dollars for each and every offense, to be recovered before any magistrate of the City of Philadelphia as debts of that amount are recoverable, and said fine or penalty, if not paid to said magistrate, shall become a lien on the real property of the offender and be collectible as provided by law.

These regulations, having been approved by the Select and Common Councils of the City of Philadelphia and duly published, have now the force of law.

Summary of Directions for the Care and Observation of Trees. For the convenience of private owners of trees, who desire to take intelligent interest in their condition and welfare, we subjoin some suggestions as to the directions which their care and observation should take. They



A street in Overbrook lined with handsome Norway Maples. Observe the liberal planting space strip.

may all be found in more detail in other portions of this Report, but are here summarized:

The opening around the tree should be of standard size—four feet by three feet.

The earth in the opening should not be dry and caked, but should be loose enough to admit air and water easily. If this ground is covered with grass, the sod should be open near to and surrounding the trunk.

The rain which falls on the sidewalk should in part reach the opening and should not be diverted by little channels or irregularities of the pavement so that it runs over the curb into the gutter.

The tree should be protected by a roomy tree-guard at least six feet high, not embracing it too closely and not chafing it when the wind blows.

The tree should be guarded against borers, which may be recognized by little holes in the trunk, at the openings of which sawdust appears. They are most common from April to November.

The trunk and branches should be cleared of cocoons, egg masses, larvae, caterpillars, beetles, scale, etc.

The tree should be pruned of dead wood *by an expert*, supplied by the Commission. Careless or ignorant pruning puts a tree back for years and may injure it so that it will never recover its health.

The tree should stand straight and erect (perpendicular), and this should, of course, be looked after most carefully while it is young. If there are scars or cavities, these should be cleansed and painted or filled with cement to prevent decay.

The tree should remain green and in full leaf to the middle of October.

Additional nourishment supplied to the tree by digging in wood ashes, ground bone or well rotted manure will



Dead and dying trees on South Broad street. Note how close the pavement comes to the trees.

add to its chances of life and will hasten its growth. This should be done, however, after consultation with an inspector.

If wires or gas leaks or other injurious agencies seem to be interfering with the health of a tree, the Commission should be notified.*

**To Contractors, Builders and Members of Building,
Paving, Plumbing and other Trades.**

As the practice of piling or placing materials against trees or on or in the open spaces around them is harmful to the trees and may result in their death, attention is directed to the following extracts from the Regulations adopted by the Commissioners and approved by Councils:

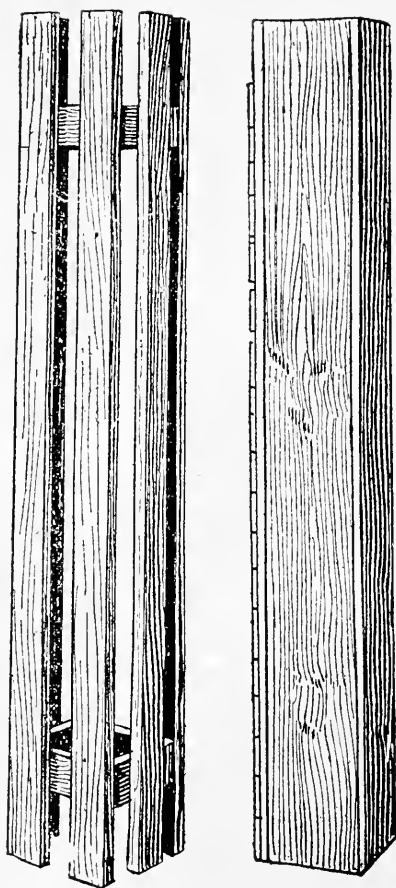
“No person shall climb upon, cut, break, bark or otherwise injure or disturb any tree, tree-guard or support thereof on any highway in the City without authority from said Commissioners.

“No person shall attach any guy-rope, cable, wire or other fixture to any tree, tree-guard or support thereof on any highway in the City.

“No pavement of any kind shall be laid within a space of three feet by four feet around any street tree, and no stone, gravel, cement, lumber or other material shall be deposited upon such unpaved area. Such unpaved space must be maintained permanently and continuously about the base of the trunk of each street tree.”

These rules apply to all operations, large or small, including grading and curbing, paving and flagging, water

*For part of the above summary and also for the following directions to contractors and others, acknowledgment should be made to the Newark Shade Tree Commission, which has published and circulated much excellent popular literature on this subject.



Rigid wooden guard to protect tree,
at least six feet high.

installations, plumbing connections, gas connections, sidewalk laying and all building procedures.

Failure, in any of these cases, to comply with the above rules will subject the offender to the penalties provided by law, to wit:

“Every person or corporation violating any of the foregoing regulations shall pay a fine or penalty of five dollars for each and every offense, to be recovered before any magistrate of the City of Philadelphia as debts of that amount are recoverable, and said fine or penalty, if not paid to said magistrate, shall become a lien on the real property of the offender and be collectible as provided by law.”

It is obviously a very easy, simple and inexpensive matter to safeguard a tree during the operations above mentioned. The placing of an adequate wooden tree-guard about it (see opposite page) and the avoidance of putting construction material against it, or either in or on the open space at its base, will amply meet the indications.

As the trees on city streets are a valuable asset of both the city and its individual citizens, and, as it is not permitted to damage either municipal or private property during any of the operations enumerated, it is obvious that the same laws and city ordinances that are prohibitory in the one case are equally so in the other. It is hoped and believed that they will be duly observed.







