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City of Houston Ordinance No. 91-1701 *180*

AN ORDINANCE AMENDING CHAPTER 33 OF THE CODE OF ORDINANCES OF THE CITY OF HOUSTON, TEXAS, AND THE BUILDING CODE OF THE CITY OF HOUSTON, TEXAS, CONCERNING THE PLANTING, MAINTENANCE, AND PRESERVATION OF TREES AND SHRUBS AND THE ERECTION OF SCREENING FENCES; MAKING FINDINGS AND CONTAINING OTHER PROVISIONS RELATED TO THE SUBJECT; PROVIDING FOR SEVERABILITY; PROVIDING AN EFFECTIVE DATE; AND DECLARING AN EMERGENCY.

* * * *

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WHEREAS, Article 1085c, TEX. REV. CIV. STAT. ANN., authorizes the governing body of a home-rule city to provide for trees and decorative landscaping, including landscaping lighting, watering systems, or other appurtenances for the maintenance thereof in the public streets within its corporate limits; and

WHEREAS, Section 5 of Article 1085c authorizes a city to establish or maintain such improvements or facilities with its own funds, materials, equipment, and personnel; and

WHEREAS, the actions of a city in granting any authorized permit for or establishing or maintaining with its own funds any such improvements or facilities are declared to be public and governmental actions and functions of the city, exercised for a public purpose and as a matter of public necessity; and

WHEREAS, the climate and location of the City of Houston are favorable to the growth and development of trees and shrubs; and

WHEREAS, there are portions of the City that have retained the naturally occurring trees or trees that were planted at the time of the development of the City; and

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WHEREAS, the presence of trees in the City improves air quality, absorbs carbon dioxide, generates oxygen, and reduces the propagation of noise, glare and reflected heat, and thereby protects and enhances the public health, safety and welfare; and

WHEREAS, the planting of trees and shrubs mitigates the adverse environmental effects of development by reducing the rate and volume of storm water run-off and by reducing soil erosion through the introduction and maintenance of vegetative cover, and thereby protects and enhances the public health, safety and welfare; and

WHEREAS, the planting of trees and shrubs and erection of screening fences enhance the value of residential and commercial development in the City and thereby increase its economic base; and

WHEREAS, the planting of trees and shrubs and erection of fences provide a screen which serves as a barrier between differing land uses against noise, glare and reflected heat, thereby minimizing the adverse effects of increased urbanization on the value of the existing properties in the City and protecting the economic base of the City; and

WHEREAS, the benefit to the public of the planting of trees is increased by the placement of trees along the ways, streets and thoroughfares; and

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WHEREAS, the establishment of a uniform City policy relating to plantings within surface parking areas will reduce glare, reflected heat and the rate of storm water runoff from impervious surfaces, thereby improving the health, safety and welfare of its residents; and

WHEREAS, the establishment of a uniform City policy for the planting of trees and shrubs will encourage the use of recommended plant species suitable for growth in the City, which will facilitate upkeep and lower unit maintenance costs; and

WHEREAS, the planting of trees and shrubs will improve the quality of life for the citizens of Houston by providing an aesthetically pleasing environment in which to work and live, NOW, THEREFORE,

* * * *

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF HOUSTON, TEXAS:

SECTION 1. That the findings contained in the preamble of this Ordinance are determined to be true and correct and are adopted as a part of this Ordinance.

SECTION 2. That Chapter 33 of the Code of Ordinances, Houston, Texas, is amended by adding a new Article V, which reads as follows:

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"Article V
TREES, SHRUBS AND SCREENING FENCES

Sec. 33-101. Definitions, figures, appendices.

(a) As used in this article, the following terms shall have the meanings ascribed below unless the context of their usage clearly indicates another meaning:

Artificial lot shall mean an area within the contiguous tract(s) or parcel(s) held under common ownership and designated on the building permit application that is delineated by the building official for the sole purpose of satisfying the requirements of this article.

Association shall mean a natural unit of vegetation characterized by a relatively uniform species composition and often dominated by a particular species.

Building site shall mean (1) the tract or parcel of land which is designated on the building permit application, together with all contiguous tracts or parcels of land held under common ownership and any existing buildings and appurtenant parking or (2) if designated, an artificial lot contained therein and delineated by the building official.

Caliper shall mean the minimum diameter of a tree as measured six inches (6") above the root collar for trees up to and including four inches (4") in diameter and twelve inches (12") above the root collar for trees having a larger diameter.

Consumer price index shall mean the 'Consumer Price Index for all Urban Consumers' as established by the Bureau of Labor Statistics for the Department of Labor.

Cost adjustment shall be the increase in any cost specified in this article as subject thereto and calculated by the percentage change in the Consumer Price Index for the period from [the month of passage of this Ordinance] to the third month preceding the date the building permit application is submitted where the sum of money is computed to the nearest cent according to the following formula:

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$\left(\frac{A}{B} - 1\right) \times \text{Cost subject to adjustment}$

In the foregoing formula:

'A' is the index value of the 'Consumer Price Index for All Urban Consumers, U.S. city average, All Items (1967=100)' as published in the Monthly Labor Review by the Bureau of Labor Statistics of the Department of Labor of the United States of America ('Index') applicable to the third month immediately preceding the month during which the computation is required to be performed.

'B' is the index value of such Index applicable to [the month in which this Ordinance was passed.]

Deciduous plants shall mean those which shed their leaves at one time each year, usually in the autumn.

Dripline shall mean an imaginary circle drawn around a tree, extending to the tree's branching limit.

Esplanade shall mean an unpaved area between two paved roadway sections.

Evergreen plants shall mean those that do not lose all of their leaves at one time, though they shed their old leaves intermittently, as new leaves come out.

Existing vegetation to be preserved shall mean any viable grouping of or single existing evergreen or deciduous trees and associated understory for which tree or buffer preservation credit is being requested.

Landscape buffer shall mean the shielding or obscuring of one land use from another by the planting of evergreen trees or shrubs, or both, or the erection of a screening fence designed to minimize the transmission or propagation of noise, light, vibration, or dust, from traffic or other activity on one property to adjoining public or private properties.

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Mulch shall mean any covering except fresh grass clippings placed on soil to conserve moisture, minimize weed growth and protect plants from extremes in temperature.

Multi-family residential shall mean any building, or portion thereof, which is designed, built, rented, leased, let out or hired out to be occupied, or which is occupied as the home or residence of three (3) or more families living independently of each other, and shall include flats, apartments and a condominium created under article 1301a, TEX. REV. CIV. STAT. ANN.

Non-residential use shall mean all uses other than single or multi-family residential use.

Parking lot shall mean a paved, surfaced or leveled area designed and ordinarily used for accessory or public parking of motor vehicles, including commercial parking areas available for lease and leased premises available for public parking. The term shall not include parking garages.

Parkway shall mean the area lying outside or behind the street curb or the edge of the roadway paving and the adjacent property line.

Public street or right-of-way shall mean the entire width between the boundary lines of every way which is held by the city or otherwise by the public in fee or dedication when any part thereof is open to the use of the public for purposes of vehicular travel; provided the term 'public street' shall not include any designated state or federal highway or road or any designated county road.

Roadway shall mean that portion of a public street which is improved, designed, or ordinarily used for vehicular travel, exclusive of the curb, berm, or shoulder. In the event that a public street includes two or more separate roadways, 'roadway' means each such roadway separately.

Root collar shall mean an encircling structure of bandlike markings or a marked color change (from the tree bark) located at the highest part of the root system joining into the trunk of the tree at or slightly below the surrounding soil line.

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Shrub shall mean any plant, deciduous or evergreen, which is generally multistemmed and sold by height or spread and measured in inches or feet.

Sidewalk shall mean the paved portion of a public street right-of-way which is between the curb lines, or the lateral lines of a roadway, and the adjacent property lines and is improved and designed for or is ordinarily used for pedestrian travel.

Single-family residential shall mean a building (attached or detached) designed to contain one (1) or two (2) separate living units with facilities for living, sleeping, cooking or eating.

Specimen tree shall mean an exemplary tree of good health and true to species habit and form, containing a minimum caliper of four inches (4").

Street tree shall mean a tree approved for planting in or adjacent to the public rights-of-way which meets the American Standard for Nursery Stock Specifications as established and published by the American Association of Nurserymen (1986 ed.), 1250 I Street, N.W., Suite 500, Washington, D.C. 20005 (on file in the office of the city secretary). A street tree list compiled by the department of parks and recreation is included in appendix A-3.

Total tree planting requirement shall mean the total number of trees which must be planted under this article (excluding any which might be planted as part of a landscape buffer). This number shall never be less than fifty percent (50%) of the total tree requirement.

Total tree requirement shall mean the total number of trees which must be provided under this article (excluding any which might be provided as part of a landscape buffer). This sum shall be made up of (1) any street and parking lot trees to be planted, and (2) planting equivalency credits earned pursuant to section 33-105.

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Tree shall mean any evergreen or deciduous tree which at the time of planting has a caliper equal to or greater than one and one half inches (1½") as measured six inches (6") above the root collar, which is not less than six feet (6') in height as measured from the root collar, and which meets the Standard for Nursery Stock Specifications as established by the American Association of Nurserymen (1986 ed.).

Understory shall mean the small tree, shrub and grass constituents of a plant association, excluding canopy vegetation.

Visibility triangle shall mean the triangular area adjacent to the intersection of any public street or public alley within which no obstruction may be placed which would block the sight lines for vehicular traffic. The triangle is established by measuring a distance of forty-five feet (45') from the intersection of the extended curb or edge of the pavement of major thoroughfares, and twenty-five feet (25') from the extended edge of the curb or pavement of local streets. A straight line connecting the ends of each measured distance which forms the hypotenuse shall establish the visibility triangle. (See figure A.) The visibility triangle shall not contain any visual or physical impediments or obstructions to the vertical view between thirty inches (30") and seven feet (7') in height.

(b) All references in this article to letter-designated or letter-and-number designated figures or appendices shall mean the applicable figure or appendix as attached to Ordinance No. 91-1701⁽¹⁾ which is on file in the office of the city secretary, or any amendment thereto.

Sec. 33-102. Application.

(a) The requirements of this article shall only apply to a building site where any of the following conditions is present:

- (i) there is new construction of a nonresidential or multi-family residential building for which a building permit is required;

¹ The City Secretary shall insert the number of this Ordinance upon its adoption.

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- (ii) there is an enlargement exceeding 1,000 square feet in area of the exterior dimensions of an existing nonresidential or multi-family residential building for which a building permit is required; or
- (iii) there is either a new parking lot for which site plans are required for initial construction under the provisions of chapter 26 of this Code or an existing parking lot which is expanded in area to provide additional parking spaces.

(b) The requirements of this article apply to the entirety of the building site if it is completely developed by the new construction of a building (or buildings) and appurtenant surface parking area. In case the entirety of the building site is only partially developed by new construction or enlargement, the requirements of this article shall be applied incrementally, such that trees, shrubs, and landscape buffers are required only with respect to and in proportion to new or increased building area and off-street parking spaces. This subsection shall control over any other conflicting or inconsistent provision.

(c) The requirements of this article do not apply to the reconstruction of an existing building of which fifty percent (50%) of the existing building floor area or less was physically destroyed or ruined by flooding, fire, windstorm or act of God. This exemption shall apply only where reconstruction of that building will not result in an increase in the paving area of the parking facilities to be provided.

(d) Nothing in this article shall be construed to require a landscape plan or landscape plan review for finish work performed by an owner, a tenant or on behalf of a tenant, in a portion of a building unless that tenant finish work or remodeling results in an increase in the paving area of the parking facilities to be provided or in an enlargement of the exterior dimensions of an existing building.

Sec. 33-103. Landscape plan required.

(a) A landscape plan for the building site shall be submitted to the department by an applicant for a building permit for approval in accordance with the provisions of this article.

(b) The landscape plan may be depicted on either the development plans or parking lot site plan, provided the drawing scale is sufficient to properly depict the landscape plan requirements. The landscape plan shall identify and show the locations of existing and proposed utility lines, roadways, sidewalks, street lights, trees, shrubs, groundcovers, natural features, other landscape elements, and planting or construction details. Where credit is being requested for the preservation of existing trees and associated understory, the landscape plan shall also demonstrate the manner in which the requirements for preservation established under section 33-112 are to be satisfied. A plant schedule shall be provided which includes quantities, minimum size at time of planting, and botanical and common names keyed to the plan.

(c) The department shall review the landscape plan to verify compliance with all requirements of this article prior to the issuance of a building permit. If an artificial lot is delineated, it shall be depicted on the building plans prior to the issuance of the building permit.

(d) No building permit shall be issued by the building official for the construction or alteration of a building within the city unless the director approves the landscape plan verifying that the applicant has provided for the planting of trees and shrubs to the extent required in this article.

(e) Except as provided in subsection (f) below, no final certificate of occupancy shall be issued by the building official for the occupancy of a new or altered building unless the plantings required by this article have been provided. Prior to the issuance of a certificate of occupancy, the building official shall inspect the planting provided to verify compliance with the approved landscape plan.

(f) A six-month conditional certificate of occupancy may be issued if the owner provides the building official with either the documented assurances specified in section 33-114 or a bond or assigned certificate of deposit as set forth in section 33-115.

Sec. 33-104. Total tree planting requirement.

At least fifty percent (50%) of the total tree requirement created by this article must be met by planting or causing the planting of trees in compliance with the provisions contained herein.

Sec. 33-105. Tree planting equivalency credits.

The following credits may be claimed for up to fifty percent (50%) of the total tree requirement under this article:

(a) Credit for planting trees exceeding the minimum caliper required. Credit toward the total tree requirement shall be given for the planting of trees that exceed the minimum caliper required by this article at the rate of two trees for each tree planted with a caliper of four inches (4") and greater, as measured twelve inches (12") above the root collar.

(b) Credit for depositing with the city's department of parks and recreation a sum of money equal to the cost of planting the required trees. Money so deposited shall be placed in a special fund designated for the purposes of planting street trees in city parks or public street rights-of-way. The credit shall be calculated based on a planting cost per tree of one hundred dollars (\$100.00) per 15-gallon container-grown tree, planted and maintained for a year, subject to a cost adjustment adjusted from [the month of passage of this Ordinance] pursuant to section 33-101(a). The maximum allowable credit under this option shall not exceed thirty percent (30%) of the total tree requirement.

(c) Credit for preserving existing on-site trees. Credit for the preservation of existing on-site trees (including any to be transplanted) may be granted when requested and depicted on the landscape plan in accordance with section 33-103. In order to be eligible for credit, an existing tree to be preserved on the site shall contain a minimum caliper of four inches (4"), shall be in good condition, and shall be true to species habit and form.

Credit for preserving existing trees shall be granted based upon the following schedule:

<u>Tree Caliper</u> (inches)	<u>Credit</u> (number of trees)
Minimum 4" to 6"	2 trees

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Greater than 6" but less than 12"	3 trees
12" and greater	4 trees

Sec. 33-106. Artificial lot delineation.

(a) In general. If the building site is over two acres in size, the applicant may request that the building official designate an artificial lot to satisfy the requirements of this article. If requested, the building official shall designate an artificial lot consistent with the purposes and policies of this article as determined from the criteria established below. No artificial lot may be delineated by the building official unless it:

- (1) wholly includes the area on which the construction work is to be done;
- (2) has an area that does not exceed fifty percent (50%) of the area of the building site; and
- (3) depicts and includes all proposed and existing buildings and structures, access drives, appurtenant parking required for the building expansion or new building construction, and other areas functionally appurtenant to the buildings or structures.

Sec. 33-107. Review of building permit and certificate of occupancy applications.

(a) The director shall review building permit applications for the construction or expansion of a building or parking lot to determine if the proposed landscape plan complies with the provisions of this article.

(b) When a certificate of occupancy is sought, the building official shall determine whether the applicant has complied with sections 33-114 and 33-115.

(c) The director shall approve an application for a building permit or certificate of occupancy which complies with the provisions of this article and all other provisions of the ordinances of the city.

(d) The director shall deny in writing all applications for a building permit or certificate of occupancy that do not comply with the provisions of this article.

Sec. 33-108. Street trees required.

(a) Street trees shall be planted within the public street rights-of-way, or on private property within ten feet (10') parallel and adjacent to a local street right-of-way, or on private non-residential property within twenty-five feet (25') parallel and adjacent to a major thoroughfare, or in the esplanade pursuant to the requirements of section 33-111(b). (See figure E.) When the building site abuts a designated state or federal highway or road or any designated county road and street trees are not otherwise required by law, street trees shall be planted on private property in accordance with this section. The number of street trees planted shall equal the total number of trees (T) required under the following formula:

$T=(X/30)$ where X shall represent the length in linear feet measured along all sides of the property line on the public street(s). (See figure B).

(b) Street trees planted in accordance with this section shall be of a species listed in appendix A-3. In the case of trees planted within the public rights-of-way, trees shall be planted in a location which conforms with the requirements of section 33-111 of this article. The trees shall be planted so as not to interfere with existing utilities, roadways, sidewalks, or street lights.

(c) If trees are planted at specific intervals, spacing intervals shall depend upon the potential mature height of the tree, as follows:

<u>Mature Height</u> (in feet)	<u>Planting Intervals Exclusive of</u> <u>Driveway Entrances (in feet)</u>
Large trees (40'+)	45' - 55'
Medium trees (30'-40')	35' - 45'
Small trees (to 30')	25' - 35'

If a street canopy effect is desired, large trees may be planted at intervals less than forty-five feet (45'). When the spacing interval exceeds 40 feet, smaller ornamental trees may be placed between the larger trees in order to meet the requirements of this section, provided the spacing does not exceed the aforementioned intervals for small trees. Trees shall not be required at specific planting intervals, as long as parking lot screening is provided in accordance with section 33-109.

(d) Credit for the preservation of existing trees within the planting area as defined in subsection (b) may be requested in lieu of meeting a portion of the street tree planting requirement pursuant to section 33-105(c). If credit is requested under that subsection, the applicant must satisfy the requirements established under section 33-112.

Sec. 33-109. Parking lot planting of trees and shrubs required.

(a) In addition to any street trees which may be required pursuant to section 33-108, the owner of a building site included under section 33-102 shall provide one (1) tree for every ten (10) parking spaces, rounding up or down in the case of a fraction to the nearest whole number, and in no case shall be less than one (1) tree. Trees planted in accordance with this subsection must be located in the interior of, or an area adjacent to the parking lot. In the case of a parking lot which is being expanded, the trees required pursuant to this subsection may be planted in any area within or adjacent to the entire parking lot.

(b) In addition to the street tree and parking lot tree requirements established within section 33-108 and subsection (a), above, the owner of a building site included under section 33-102 shall plant or cause shrubs to be planted along the perimeter of all parking surfaces so that the parking lot is screened from all adjacent public streets, exclusive of driveway entrances, pedestrian walkways and visibility triangles. Shrubs shall be maintained at a height of no more than thirty-six inches (36") nor less than eighteen inches (18") as measured from the surrounding soil line. The number of shrubs required under this subsection shall be equal to the total number of street trees required under this article multiplied by ten (10). No less than seventy-five percent (75%) of the shrubs required under this section shall be planted along the perimeter of the parking surface adjacent to the public street unless

street trees are planted within the public right-of-way or on private property in accordance with section 33-108. In that instance, the shrubs required by this section may be planted anywhere on the property, excluding the landscape buffer or esplanade.

Sec. 33-110. Landscape buffer required.

The owner of a building site included under section 33-102 and which is to be developed or expanded for a non-residential or a multi-family residential use adjacent to any existing single-family residential property shall provide a landscape buffer adhering to at least one of the following two buffer types:

- (1) Either a wood, concrete or masonry opaque screening fence with a minimum height of six feet (6') along the entire property line or entire artificial lot line, if any, adjacent to the single-family residential property; or
- (2) Evergreen screening on the property line or artificial lot line.
 - (i) The evergreen screening shall contain a minimum width of fifteen feet (15') of green space as measured from the property line. This area shall extend along that portion of the property line or artificial lot line where proposed non-residential and multi-family residential projects abut existing single-family residential developments. The area shall be planted in combinations of compatible evergreen trees and shrubs. The arrangement of plantings in buffer areas shall provide maximum protection to adjacent properties and avoid damage to existing plant material. Possible arrangements include planting in parallel, serpentine, or broken rows. Plant materials shall be sufficiently large and planted in such a fashion as to be capable of forming a continuous year-round screen of at least six feet (6') in height as measured from the root collar or surrounding soil line within three (3) annual growing seasons. All plantings shall be installed and maintained in accordance with the standards contained within appendices B and E. No buildings, structures, storage of materials, or parking

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shall be permitted within the buffer area; buffer areas shall be maintained and kept free of all debris, rubbish, weeds, and tall grass.

- (ii) The preservation of existing vegetation within the landscape buffer may be used to meet the requirements of this section provided the vegetation is preserved in accordance with section 33-112 of this article.

Sec. 33-111. General planting standards.

(a) Trees and shrubs planted in a parkway shall be planted in accordance with the applicable standards required by appendix B or E. The following additional limitations shall apply:

- (1) When located in the visibility triangle, trees shall be headed to a minimum height of seven feet (7'), and shrubs shall be maintained at a maximum height of thirty inches (30") as measured from the surrounding soil line.
- (2) Trees shall be planted at least five feet (5') from the back of the existing curb or the city's final approved design line of the curb of any public street, pavement edge, and sidewalk.

(b) In addition to the tree and shrub planting standards contained within appendices B and E, trees and shrubs in esplanades shall be planted according to the following requirements as illustrated in figure C:

- (1) Trees in any major thoroughfare street esplanade shall not be planted closer to the end of the esplanade than seventy-five feet (75').
- (2) Trees in any local street esplanade shall not be planted closer to the end of the esplanade than fifty feet (50').
- (3) Trees planted in any esplanade shall be located not closer than fifty feet (50') from any mid-block opening in the esplanade.

- (4) Shrubs planted in any esplanade shall not be planted closer to the end of the esplanade than twenty-five feet (25') or closer than three feet (3') from the back of the curb or the final approved design line for the curb of any public street. Use of ground covers or annuals and perennials conforming with the height restrictions of a visibility triangle shall not be restricted.
- (5) Trees planted in the esplanade shall not be located closer than five feet (5') from the back of the curb or the final approved design line for the curb. Trees shall not be spaced at intervals of less than thirty feet (30').

(c) Any tree located within a parking lot must be planted and maintained within a permeable area which has a radius of not less than three feet (3'). No tree shall be planted closer than three feet (3') from a curb or tire stop.

Sec. 33-112. Preservation of existing trees and associated understory.

(a) The following procedure shall be required where credit for the preservation of existing trees and associated understory is being requested to be applied toward the total tree planting requirement pursuant to section 33-105(c). Where such credit is being requested, the applicant shall also supply the following information to the building official for review with the building plans.

- (1) Tree and associated understory preservation plan. This overlay shall be integrated into the proposed landscape plan and shall include:
 - (i) Delineation of proposed limit of clearance and establishment of tree protection zones which shall extend to just outside the dripline of the tree and understory to be protected, if any.
 - (ii) Proposed soil stabilization practices, i.e., silt fence, hay bales.
 - (iii) Specimen trees to be preserved and for which credit is being requested.

- (iv) The proposed finished grade and elevation of land within six feet (6') of or within the dripline of any tree to be preserved, whichever is greater, shall not be raised or lowered more than three inches (3") unless compensated for by welling or retaining methods.
- (v) Existing and proposed location of all trees and plant materials to be relocated at the drawing scale.
- (vi) A landscaping tabulation, and itemized credit requests for existing trees to be preserved which have a minimum of four inches (4") in caliper and greater.
- (vii) Tree and associated understory preservation details.
- (viii) Specification of ground plane treatment as either turf or sod. If a combination of both is utilized, the limit of each shall be indicated.

(b) The following tree relocation information shall be provided on the landscape plan or in a report for the transplantation of existing specimen trees when preservation credit is being requested for them. This information shall include an assessment of the cost of transplanting the trees as opposed to the potential mortality rate which may result from the attempted transplantation. If relocation is elected, the following information shall be provided:

- (i) Transplanting techniques;
- (ii) Equipment to be utilized;
- (iii) Locations of existing trees and proposed locations for transplanted trees;
- (iv) Genus, species, caliper, height and general condition of the existing tree;
- (v) Pruning and maintenance schedule and methods to be followed; and
- (vi) Which form of assurance of performance will be provided, i.e., executed contract, bond or assigned certificate of deposit.

(c) If preservation credit is requested, the trees shall be protected and preserved as set forth in appendix C.

(d) The department shall make recommendations to minimize damage to existing vegetation during the site construction phase. The department shall also suggest possible uses for those trees removed as a result of development such as the creation of wood chip mulch from removed hardwood trees.

Sec. 33-113. Duty; affirmative defenses.

(a) All owners of building sites included under section 33-102 shall plant or cause the planting of trees or shrubs required in sections 33-108 and 33-110 or secure the planting equivalency credits allowed in section 33-105.

(b) All owners and lessees of new or expanded parking lots on building sites included under section 33-102 shall additionally plant trees or shrubs in compliance with section 33-109.

(c) No person shall remove or alter any street tree or shrub planted in the public right-of-way without the written permission of the department of parks and recreation unless otherwise authorized by law.

(d) It shall be an affirmative defense under this article that:

- (1) The actor caused the tree or shrub to be planted and maintained in accordance with this article, but the tree or shrub died more than two years after the issuance of the certificate of occupancy.
- (2) The actor caused the tree or shrub to be planted and maintained on the public right-of-way in accordance with this article, but the tree or shrub died and (i) was removed by the owner with the written permission of the department of parks and recreation, or (ii) the period allowed by this article for replacing the tree or shrub has not yet elapsed.

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- (3) The actor caused the tree or shrub to be planted or maintained on private property in accordance with this article but the tree or shrub died and the period allowed by this article for replacing the tree or shrub has not yet elapsed.
- (4) The building permit for the actor's property is for single-family residential use.
- (5) The actor's property has an unexpired conditional certificate of occupancy, and the actor has provided an executed contract or a bond or assigned certificate of deposit in accordance with this article; or
- (6) A variance or waiver was secured for the building site in conformity with the requirements of this article.

Sec. 33-114. When required landscaping (trees, shrubs or fences) must be installed; documented assurance.

(a) Except as otherwise provided in subsection (b) and section 33-115, all proposed landscaping must be installed in accordance with the approved landscape plan prior to issuance of a final certificate of occupancy on a building site.

(b) The property owner may elect to provide the building official with documented assurances that the landscaping will be completed within a six-month period. If so, a conditional certificate of occupancy may be issued by the building official for six months. For purposes of this section, "documented assurance" shall mean a copy of an executed contract for the proper installation of the required landscaping in accordance with the approved landscape plan within a six-month period.

(c) The property owner is responsible for notifying the building official when the landscape installation is complete. If the property owner fails to notify the building official within the prescribed six-month period, the building official shall revoke the conditional certificate of occupancy.

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Sec. 33-115. Bond; assigned certificate of deposit.

(a) Prior to the issuance of any conditional certificate of occupancy, any applicant who has not provided the documented assurance set forth in section 33-114 shall file with the director a bond which shall be executed by the applicant as principal and by a good and sufficient corporate surety company licensed to do business in the State of Texas. The bond in the sum of 1.25 times the proposed cost to install the required landscaping improvements and fences, based upon the adjusted costs established in appendix F, shall be payable to the city and conditioned that the principal and surety will pay all amounts required to install the landscaping and fences required by this article. The bond shall provide that it will remain in full force and effect until released by the director pursuant to this article.

(b) In lieu of such bond, an applicant for a conditional certificate of occupancy may, upon payment to the city of a nonrefundable one hundred dollar (\$100.00) fee, assign an account with a financial institution insured by the Federal Deposit Insurance Corporation to the city. Such account shall have a deposit of not less than the amount required under subsection (a). Under such an assignment, the financial institution must agree not to release, make payment from, or otherwise divert or dispose of the funds in such account, except it shall agree to disburse all or such portion of the funds in the account as may be directed by city council resolution.

Upon installation and inspection of the required landscaping, the city shall release the assigned deposit to the property owner.

When requesting a conditional certificate of occupancy, the owner must grant the city permission to enter upon his land for the purpose of installing the required landscaping if the owner does not fulfill his obligation to install the required landscaping within the specified six-month period. If permission is not granted, the owner's application for a conditional certificate of occupancy shall be denied.

(c) In the event that any holder of a conditional certificate of occupancy who has previously furnished an account assignment under subsection (b) elects to furnish a bond under subsection (a) instead, then the holder shall be entitled to disbursement of the account proceeds in the same manner and under the same terms provided in subsection (b).

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Sec. 33-116. Appeal of denial of building permits.

Appeals from the denial of a building permit for non-compliance with this article shall be reviewed in the same manner as appeals from development plat disapprovals under section 42-87 of this Code.

Sec. 33-117. Variance procedure.

(a) An applicant for a building permit may make written application to the director for a variance from the requirements of this article other than those which may be made the basis of a request for a waiver under Sec. 33-121. A completed application for a variance shall include:

- (1) Completed application on form supplied by the city; and
- (2) A non-refundable fee of two hundred dollars (\$200.00).

This application package shall be reviewed by the department.

(b) Within seven (7) days of the date the application is accepted, the director shall forward a copy of the application to the traffic engineer who shall file his report and recommendations regarding the proposed variance with the secretary of the commission.

(c) A staff report regarding the variance request shall be provided to the commission prior to the meeting at which the variance shall be considered.

Sec. 33-118. Standards for variance.

(a) The commission is authorized to consider and grant variances from the provisions of this article by majority vote of those members present and voting, when the commission determines that the following conditions exist:

- (1) The imposition of the terms, rules, conditions, policies and standards of this article would deprive the owner or applicant of the property of reasonable use of the land or building;

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- (2) The circumstances supporting the granting of the variance are not the result of a hardship imposed or created by the applicant, and the general purposes of this article are observed and maintained; and
- (3) The intent of this article is preserved; and
- (4) The granting of such a variance will not be injurious to the public health, safety or welfare.

Sec. 33-119. Applicability of variance.

Any variance granted under the provisions of this section will apply only to the specific property and use upon which the commission was requested to grant a variance by the applicant. All variances as granted shall be in writing, shall be signed by the secretary of the commission and maintained as a permanent record of the commission.

Sec. 33-120. Mitigation for loss of installed and preserved vegetation.

(a) All proposed, existing or relocated vegetation shall be maintained in accordance with this article and appear healthy for a minimum of two years from the issuance of the final certificate of occupancy. Dying, damaged or removed trees shall be replaced at the owner's expense with another living plant that complies with the approved landscape plan. The tree replacement quantity shall be equal to or greater than the original or credited quantity for the tree in question.

(b) The director shall notify the owner of a building site in writing when a plant is discovered which does not meet the requirements of subsection (a), above. The owner shall then replace the plant within one year from receipt of the written notice or between November 1st and April 1st, whichever period is less.

Sec. 33-121. Interference with existing utilities, curbs, sidewalks, drainage facilities, roadways, street lights, appeal of denial of waiver.

(a) The director shall grant a waiver when requested in the application if the area in which the planting is required by this article is too small to accommodate the required planting without damage to

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existing utilities, curbs, sidewalks, roadways, street lights or drainage facilities, and the planting requirements of this article may not be otherwise satisfied pursuant to this article.

(b) A waiver shall be granted where the director finds the following:

- (1) That a literal application of this article will result in damage to existing utilities, roadways, street lights, curbs, sidewalks or drainage facilities;
- (2) The waiver, if granted, will not be contrary to the public interest;
- (3) The waiver, if granted, will not be detrimental to the public health, safety, or welfare; and
- (4) The waiver, if granted, will not result in a violation of any other applicable ordinance, regulation or statute.

(c) No later than the thirtieth (30th) calendar day following the filing of the required application for a waiver, the director shall issue to applicant a written notice that the waiver has been granted or refused. Any notice of refusal of an application for a waiver must include a written report explaining in detail the reasons for such refusal. The issuance of a written notice to the applicant shall be complete upon deposit of such notice in the United States mail, First Class postage paid, addressed to the applicant at address given on the application for the waiver.

(d) The applicant may appeal the denial of a waiver to the Commission in the manner provided in Sec. 33-116.

Sec. 33-122. Cumulative effect.

This article shall be cumulative of other provisions of this Code, including, but not limited to sections 32-6 and 45-17."

SECTION 3. That Section 307(c) of that certain volume of the Building Code of the City of Houston, Texas, which is known as the City of Houston Building Code - General Provisions, is amended to read as follows:

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"(c) Certificate Issued. After the building official inspects the building or structure and finds no violations of the provisions of this code or other laws which are enforced by the code enforcement agency, including but not limited to chapter 33, Code of Ordinances, the building official shall issue a certificate of occupancy which shall contain the following:

1. The building permit number.
2. The address of the building.
3. The name and address of the owner.
4. A description of the building or that portion of the building for which the certificate is issued.
5. A statement that the described building or portion of the building has been inspected for compliance with the requirements of this code for the group and division of occupancy and the use for which the proposed occupancy is classified.
6. A statement confirming that all landscaping has been installed in accordance with the requirements of the approved landscape plan, or proper assurances have been provided for the installation of all landscaping in accordance with the approved landscape plan, or that proper fiscal arrangements have been made with the city pursuant to sections 33-114 and 33-115, Code of Ordinances.
7. The name of the building official."

SECTION 4. That Section 9007 of that certain volume of the Building Code of the City of Houston, Texas, which is known as the City of Houston Building Code - General Provisions, is amended by adding new Paragraph 11 to read as follows:

"11. The proposed location of plantings required under chapter 33, article V, Code of Ordinances."

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SECTION 5. That Section 9014 of that certain volume of the Building Code of the City of Houston, Texas, which is known as the City of Houston Building Code - General Provisions, is amended to read as follows:

"Sec. 9014. (a) Parking Lot Design. When an area is being developed for parking, a plan shall be prepared and submitted to the building official and the traffic engineer showing the boundaries, entrances and exits, geometric layout of stalls and aisles, operating plan, drainage, surfacing or paving and plantings. The space being developed for parking shall be surfaced with shell or better."

SECTION 6. Pursuant to Section 3 of Article 1085c, TEX. REV. CIV. STAT. ANN., the City Council finds with respect to any trees or shrubs that may be established in the public streets in compliance with the requirements set forth below in this Ordinance:

- (1) that the trees or shrubs will not be located on, extend onto, nor intrude upon any portion of the roadway;
- (2) that the trees or shrubs will not be located on, extend onto, nor intrude upon any portion of the sidewalk which is needed for pedestrian use;
- (3) that the design and location of the trees or shrubs includes all reasonable planning to minimize potential harm, injury, or interference to the public in the use of the public street; and

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- (4) that the trees or shrubs will not create any hazardous condition or obstruction of vehicular or pedestrian travel upon the public street.

SECTION 7. This ordinance shall become effective on the sixtieth (60th) day next following the date of its passage and approval. Its provisions shall not apply to:

- (1) Any building permit application submitted to the building official before such effective date;
- (2) Any parking lot site plan submitted to the director before such effective date; or
- (3) Any parking lot design plan submitted to the building official and traffic engineer before such effective date.

SECTION 8. If any provision, section, subsection, sentence, clause, or phrase of this ordinance, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, void or invalid, the validity of the remaining portions of this ordinance or their application to other persons or sets of circumstances shall not be affected thereby, it being the intent of the City Council in adopting this ordinance that no portion hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality, voidness or invalidity of any other portion hereof, and all provisions of this ordinance are declared to be severable for that purpose.

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SECTION 9. The City Council officially finds, determines, recites and declares that a sufficient written notice of the date, hour, place and subject of this meeting of the City Council was posted at a place convenient to the public at the City Hall of the City for the time required by law preceding this meeting, as required by the Open Meetings Law, Article 6252-17, Texas Revised Civil Statutes Annotated; and that this meeting has been open to the public as required by law at all times during which this ordinance and the subject matter thereof has been discussed, considered and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the contents and posting thereof.

SECTION 10. There exists a public emergency requiring that this Ordinance be passed finally on the date of its introduction as requested in writing by the Mayor; therefore, this Ordinance shall be passed finally on such date and shall take effect as provided in Section 7, above.

PASSED AND ADOPTED this 4th day of December of 1991.

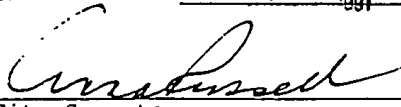
APPROVED this _____ day of _____ of 19____.

Mayor of the City of Houston

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Pursuant to Article VI, Section 6, Houston City Charter, the effective date of the foregoing Ordinance is DEC 11 1991



City Secretary

(Prepared by Legal Dept. Wanda T. ...)
(LSP/ps 12/11/91 Senior Assistant City Attorney
(Requested by Planning and Development Department)
(L.D. File No. 61-89051)

AYE	NO	
✓		MAYOR WHITMIRE
		<u>COUNCIL MEMBERS</u>
✓		McKASKLE
✓		McGOWEN
✓		RYAN
✓		CALLOWAY
✓		MANCUSO
✓		GOODNER
✓		HARTUNG
✓		GORCZYNSKI
✓		REYES
✓		CLARK
✓		TINSLEY
✓		GREENWOOD
✓		LEE
✓		ROBINSON
		CAPTION ADOPTED

RETURN ENCLOSED BY EARLY COURT
DEC 11 1991

APPENDIX A-1

LARGE TREES FOR HOUSTON

016-53-1274

*D means deciduous, and E means evergreen

BOTANICAL NAME	*COMMON NAME	COMMENTS
<i>Acer rubrum</i> var <i>drummondii</i>	D Drummon Red Maple	Wet sites
<i>Acer rubrum</i> var <i>tridens</i>	D Trident Red Maple	Wet sites
<i>Acer barbatum</i>	D Southern or Texas Sugar Maple	
<i>Betula nigra</i>	D River Birch	Wet sites
<i>Bumelia lanuginosa</i>	D Chittamwood, Gum bumelia or Wooly Bucket	Drought-tolerant/Attracts birds
<i>Carya cordiformis</i>	D Bitternut Hickory	
<i>Carya illinoenses</i>	D Pecan	Nut
<i>Carya texana</i>	D Black Hickory	Drought-tolerant
<i>Carya tomentosa</i>	D Mockery Nut Hickory	Fruit
<i>Diospyros virginiana</i>	D Persimmon, eastern	Fruit
<i>Ehretia anacua</i>	D Anacua	Flowering/Fruit/Drought-tolerant
<i>Fraxinus americana</i>	D White Ash	
<i>Fraxinus Pennsylvanica</i>	D Green Ash	
<i>Ginkgo biloba</i>	D Ginkgo	Male only
<i>Ilex opaca</i> (and cultivars)	E American Holly	Female/Fruit
<i>Juglans nigra</i>	D Black Walnut	
<i>Liquidambar styraciflua</i>	D Sweetgum	Fall color
<i>Liriodendron tulipifera</i>	D Tulip tree or Yellow Poplar	Flowering/Wet sites
<i>Magnolia grandiflora</i>	E Southern Magnolia	Flowering
<i>Magnolia virginiana</i>	E Sweet Bay Magnolia	Flowering/Wet sites
<i>Metasequoia glyptostroboides</i>	D Dawn Redwood	
<i>Nyssa aquatica</i>	D Water tupelo	Wet sites
<i>Nyssa sylvatica</i> var <i>biflora</i>	D Swamp tupelo or Black Gum	Wet sites
<i>Nyssa sylvatica</i> var <i>sylvatica</i>	D Black Gum	Fruit/Fall color
<i>Pinus palustris</i>	E Longleaf Pine	
<i>Pinus taeda</i>	E Loblolly Pine	
<i>Pinus glabra</i>	E Spruce Pine	
<i>Plantanus mexicana</i>	D Mexican Sycamore	Wet sites
<i>Plantanus occidentalis</i>	D Sycamore	
<i>Prunus serotina</i>	D Black Cherry	Flowering/Fruit
<i>Quercus acutissima</i>	D Sawtooth Oak	
<i>Quercus alba</i>	D Oaks, white	Fall color
<i>Quercus canbii</i>	D Canby Oak	
<i>Quercus falcata</i>	D Southern Red Oak	
<i>Quercus laurifolia</i>	D Laurel Oak	
<i>Quercus lyrata</i>	D Overcup Oak	Wet sites
<i>Quercus macrocarpa</i>	D Bur Oak	Wet sites/Drought-tolerant
<i>Quercus michauxii</i>	D Swamp Chestnut Oak	Fall color
<i>Quercus muehlenbergii</i>	D Chinkapin Oak	Drought-tolerant
<i>Quercus nutallii</i>	D Nutall Oak	Fall color/Wet sites

APPENDIX A-1

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LARGE TREES FOR HOUSTON

*D means deciduous, and E means evergreen

BOTANICAL NAME	*COMMON NAME	COMMENTS
Quercus palustris	D Pin Oak	Fall color
Quercus phellos	D Willow Oak	
Quercus polymorpha	D Monterrey Oak	
Quercus rizophyllia	D Loquat Leaf Oak	Fall color
Quercus shumardii	D Shumard Oak	
Quercus stellata	D Post Oak	
Quercus virginiana	D Live Oak	Fall color/Attracts birds
Sassafras albidum	D Sassafras	Wet sites/Drought-tolerant
Taxodium distichum	D Bald Cypress	
var distichum		
Taxodium distichum	D Pond Cypress	
var nutans		
Taxodium mucronatum	D Montezuma Bald Cypress	
Tilia caroliniana	D Carolina Basswood	
Ulmus americana	D American Elm	
Ulmus alata	D Winged Elm	Drought-tolerant
Ulmus crassifolia	D Cedar Elm	
Ulmus parvifolia	D Drake Elm	
var drakii		
Zelkova serrata	D Japanese Zelkova	

APPENDIX A-2
 SMALL TREES FOR HOUSTON

016-53-1276

*D means deciduous, and E means evergreen

BOTANICAL NAME	*COMMON NAME	COMMENTS
<i>Acer leucoderme</i>	D Chalk Maple	Fall color
<i>Acacia wrightii</i>	D Wright Acacia	Flowering/Drought-tolerant
<i>Aesculus pavia</i>	D Red Buckeye	Flowering
var <i>pavia</i>		Yellow flowers
<i>Aesculus pavia</i>	D Red Buckeye	
var <i>flavescens</i>	D White Buckeye	Flowering/Drought-tolerant
<i>Aesculus glabra</i>		Flowering/Fruit
var <i>arguta</i>	D Pawpaw	Flowering/Drought-tolerant
<i>Asimina triloba</i>	D Anacacho Orchid Tree	Wet sites/Fall color
<i>Bauhinia congesta</i>		
<i>Carpinus caroliniana</i>	D American Hornbeam, Ironwood or Blue Beech	Flowering
<i>Cercis canadensis</i>	D Eastern Redbud	Flowering/Drought-tolerant
<i>Cercis canadensis</i>	D Texas Redbud	
var <i>texensis</i>		
cultivars		
<i>Cercis canadensis</i>	D Mexican Redbud	Flowering/Drought-tolerant
var <i>mexicana</i>		Flowering/Attracts birds
<i>Chionanthus virginicus</i>	D Fringe Tree	Flowering/Drought-tolerant
<i>Chionanthus retusus</i>	D Chinese Fringe Tree	Flowering/Attracts birds
<i>Cornus florida</i>	D Flowering Dogwood	Fall color/Drought-tolerant
<i>Cotinus obovatus</i>	D American Smoke Tree	Flowering/Attracts birds
<i>Cratagus marshallii</i>	D Parsley Leaf Hawthorn	Flowering/Fruit/Attracts birds
<i>Cratagus opaca</i>	D May Haw	Flowering/Attracts birds
<i>Cratagus spathulata</i>	D Little Hip Hawthorn	Flowering
<i>Cratagus viridis</i>	D Green Hawthorn	Flowering
<i>Cratagus texana</i>	D Texas Hawthorn	Flowering
<i>Cratagus reverchonii</i>	D Reverchon Hawthorn	Wet sites
<i>Cyrilla racemiflora</i>	D Titi	Fruit/Drought-tolerant
<i>Diospyros texana</i>	D Texas Persimmon	Flowering/Drought-tolerant
<i>Eysenhardtia texana</i>	D Texas Kidneywood	Flowering
<i>Halesia diptera</i>	D Two-winged Silverbell	Female-Fruit/Attracts birds
<i>Ilex cassine</i>	E Dahoon Holly	Female-Fruit/Attracts birds
<i>Ilex decidua</i>	D Possum Haw	Female-Fruit/Attracts birds
<i>Ilex vomitoria</i>	E Yaupon	Female-Fruit/Attracts birds

APPENDIX A-2

SMALL TREES FOR HOUSTON

*D means deciduous, and E means evergreen

BOTANICAL NAME	*COMMON NAME	COMMENTS
<i>Malus angustifolia</i>	D Southern Crabapple	Flowering/Fruit
<i>Myrica cerifera</i>	E Southern Wax Myrtle	Wet sites/Attracts birds
<i>Ostrya virginiana</i>	D Eastern Hop Hornbeam	
<i>Parkinsonia aculeata</i>	D Retama	Flowering/Drought-tolerant
<i>Pistacia chinensis</i>	D Chinese Pistachio	Fall color/Drought-tolerant
<i>Pistacia texana</i>	D Texas Pistache	Drought-tolerant
<i>Prosopis glandulosa</i> var <i>glandulosa</i>	D Mesquite	Drought-tolerant
<i>Prunus mexicana</i>	D Mexican Plum	Flowering/Fruit/Drought-tolerant
<i>Prunus umbellata</i>	D Flatwoods Plum	Flowering/Fruit
<i>Prunus augustifolia</i>	D Creek Plum	Flowering/Fruit
<i>Rhamnus caroliniana</i>	D Carolina Buckthorn	Fall color/Fruit/Attracts birds/Drought-tolerant
<i>Rhus copallina</i>	D Sumac	Fall color
<i>Sophora secundiflora</i>	E Texas Mountain Laurel	Flowering/Drought-tolerant
<i>Sophora affinis</i>	D Eve's Necklace	Flowering
<i>Ungnadia speciosa</i>	D Mexican Buckeye	Flowering/Drought-tolerant
<i>Viburnum rufidulum</i>	D Rusty Black Haw Viburnum	Flowering/Fall color/ Drought-tolerant/ Attracts birds

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APPENDIX A-3
 DEPARTMENT OF PARKS AND RECREATION
 STREET TREES

*D means deciduous, and E means evergreen
 (See Appendices A-1 and A-2 for comments.)

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I. Generally

*COMMON NAME	BOTANICAL NAME
D Texas Sugar Maple	Acer barbatum
D Pecan	Carya illinoensis
D Anacua	Ehretia anacua
D Ginkgo	Ginkgo biloba
D Black Gum	Nyssa sylvatica var sylvatica
D Sawtooth Oak	Quercus acutissima
D Southern Red Oak	Quercus falcata
D Overcup Oak	Quercus lyrata
D Bur Oak	Quercus macrocarpa
D Chinkapin Oak	Quercus muehlenbergii
D Nuttall Oak	Quercus nutallii
D Monterrey Oak	Quercus polymorpha
D Shumard Oak	Quercus shumardii
D Post Oak	Quercus stellata
D Live Oak	Quercus virginiana
D Bald Cypress	Taxodium distichum var distichum
D Montezuma Bald Cypress	Taxodium distichum mucronatum
D Winged Elm	Ulmus alata
D Cedar Elm	Ulmus crassifolia
E American Holly	Ilex opaca
D Swamp Chestnut Oak	Quercus michauxii
D Drake Elm	Ulmus parvifolia var drakii

APPENDIX A-3
DEPARTMENT OF PARKS AND RECREATION
STREET TREES

*D means deciduous, and E means evergreen
(See Appendices A-1 and A-2 for comments.)

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II. Under Power Lines

*COMMON NAME	BOTANICAL NAME
D Gum Bumelia	Bumelia lanuginosa
D Black Hickory	Carya texana
D Eastern Persimmon	Diospyros virginiana
D Anacua	Ehretia anacua
D Ginkgo - male only	Ginkgo biloba
D Sweetbay	Magnolia virginiana
D Black Cherry	Acer rubrum var drummondii
D Shining Sumac	Rhus copallina
D Live Oak	Quercus virginiana
D Caroline Basswood	Tilia caroliniana
D Winged Elm	Ulmus alata
D Cedar Elm	Ulmus crassifolia
D Drake Elm	Ulmus parvifolia var drakii
E American Holly	Ilex opaca
D Chinese Pistachio	Pistacia chinensis

APPENDIX B

TREE PLANTING

I. Tree Selection

Trees planted under Section 33-108 must be selected from the Street Trees List (Appendix A-3). All plant stock shall meet the Standard for Nursery Stock Specifications, as established by the American Association of Nurserymen (1986 ed.) on file in the office of the city secretary.

The following factors should be considered in the selection of trees from the tree and shrub lists, Appendices A-1, A-2, A-3, and D:

- A. Hardiness of trees for the specific site, i.e., soil conditions, PH, drainage.
- B. Mature plant size, form and growth rates, i.e., proximity to overhead utility lines.
- C. Drought tolerance.
- D. Pest and insect resistance.

II. Tree Planting

- A. Holes for the trees should be excavated 1½ to 2 feet greater in width than the diameter of the soil ball. The sides of the hole should be vertical and the bottom horizontal. Trees should be planted with the top of the root ball two inches (2") above existing grade. No holes should be left uncovered overnight.
- B. Trees should be set in an upright plumb position at depth two inches (2") higher than grown in the container. Care should be taken so as not to injure the root system, trunk, or foliage. The trunk should not be used as a lever in positioning or moving the tree in the planting hole.
- C. The backfill should consist of topsoil excavated from the planting hole. If there is not enough topsoil, a supplement of similar topsoil should be furnished. Each planting hole should be backfilled and tamped lightly so as not to damage roots. A saucer should be constructed 6-8 inches above soil grade around the planting hole and should be a minimum of six feet (6') in diameter, free of weeds and grass.

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- D. Any pruning should be done according to the standards of the National Arborist Association (Rev. 1988) (The Meeting Place Mall, Route 101, P.O. Box 1094, Amherst, NH 03031), on file in the office of the city secretary. All damaged limbs should be removed. The tree should be maintained in a shape appropriate to its species. Street trees should be pruned in accordance with the standards for hazard pruning contained in Class III.
- E. Trees planted hereunder should be staked with a minimum of two (2) stakes, eight feet (8') long, attached to the tree with plastic tree chain, one inch (1") in size, or equivalent, in a manner that is secure and will not injure the tree. Any 100-gallon trees should be tri-staked (3 stakes). Other types of securing ties or devices may be used if designed for that purpose.
- F. Mulch shall be placed loosely around trees planted hereunder within twenty-four (24) hours after planting to a uniform depth of 3-4 inches and to a diameter of six feet (6'). No leaves, branches, roots or other foreign material may be used as a mulch. This area should be maintained free of weeds and grass vegetation with a 3-4 inch mulch cover for a minimum period of one (1) year.

III. Watering

The following watering schedule may be utilized and revised during prolonged periods of rain or drought.

Initial Watering After Planting
--

Root zones should be slow-soaked every 7 days for 4 weeks.

November December January February

In the absence of sufficient rainfall, root zones should be slow-soaked on a 21-day watering schedule.

October March April

In the absence of sufficient rainfall, root zones should be slow-soaked on a 14-day watering schedule.

TREE PLANTING

APPENDIX B

Page 3

May
June
July
August
September

--

In the absence of sufficient rainfall, root zones should be slow-soaked on a 7-day watering schedule.

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APPENDIX C
TREE PROTECTION

016-53-1283

(a) General Procedures.

- (1) Trees to be preserved must be clearly tagged in the field with ribbon.
- (2) Tree wells shall be made of a durable material and set a minimum of four feet (4') from any tree they are designed to protect.
- (3) Retaining walls of a durable material, i.e., stone, or treated lumber, are to be constructed around each tree immediately after the grade is lowered. A retaining wall must be at least four feet (4') from the tree it is designed to preserve.
- (4) Any understory clearing within six feet (6') of existing tree trunks should be done by hand.
- (5) No building materials are to be stacked or stockpiled within the dripline or within six feet (6') of any tree to be preserved, whichever is greater.
- (6) Topsoil shall not be stockpiled within the dripline or within six feet (6') of any tree to be preserved, whichever is greater.
- (7) Selective thinning of dead or dying vegetation, tree stumps and other undesired growth is required in buffer areas. Supplemental vegetation shall comply with the landscape buffer requirements of this article.

(b) Tree Protection Zones.

Tree protection zones shall be established prior to construction. During construction a barrier shall be maintained at all times between the tree and the work areas. The barrier shall be composed of wood, wire, snowfence and braces of similar noninjurious material. These areas shall be clearly marked with signs stating 'tree protection zone.' In tree protection zones the following restrictions shall apply:

- (1) No soil compaction from vehicular traffic and material storage.

APPENDIX C

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Page 2

TREE PROTECTION

- (2) No trunk and limb damage from equipment, nailing, bolting and guying.
- (3) No poisoning from pouring of concrete, lime, paint thinner and other soil contaminants.
- (4) No root suffocation or damage to roots from fill soil or grade change.
- (5) No improper pruning or trimming of branches. Pruning should be done in accordance with the standards of the National Arborist Association (Rev. 1988) on file in the office of the city secretary. Street trees should be pruned in accordance with the standards for hazard pruning contained in class III of those standards.

(c) Maintenance in Tree Protection Zones.

- (1) A watering and monitoring schedule for tree protection zones should be implemented to compensate for damage to existing root systems. Trees should be watered at intervals that provide sufficient water during periods of drought, and waterings should be suspended during periods of heavy rainfall. Tree root systems should be drenched and allowed to dry.

November	□	In the absence of sufficient rainfall, root zones should be drenched every 21 days.
December		
January		
February		

October	□	In the absence of sufficient rainfall, root zones should be drenched every 14 days.
March		
April		
May		

June	□	In the absence of sufficient rainfall, root zones should be drenched every 7 days.
July		
August		
September		

- (2) Trees shall be fertilized annually. A 3-1-1 ratio of nitrogen, phosphorus, and potassium ("NPK") containing a slow-release, nonburning nitrogen should be applied according to manufacturer's instructions.

APPENDIX C
TREE PROTECTION

Page 3

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- (d) Permitted Activities in Tree Protection Zones.
 - (1) Specially Designed Sidewalks
Sidewalks are permitted if laid on top of the existing grade with fill placed at the sides. Sidewalks shall not be cut into the ground.
 - (2) Utility Lines
Utility lines shall be tunneled beneath tree roots in order to protect feeder roots, rather than trenched or open cut.
 - (3) Sodding and Ground Cover
Placement of sod or other ground cover and the preparation of ground surface for such cover is permitted. No tilling of the soil shall be allowed.

APPENDIX D

SHRUB LIST

Page 1

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<u>EXPECTED HEIGHT AFTER 3 YEARS</u>	<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>
<u>EVERGREENS</u>		
1 - 3 ft	Japanese Boxwood	Buxus microphylla japonica
1 ft	Dwarf Euonymus	Euonymus japonica 'Microphylla'
2 - 3 ft	Silver King Euonymus	Euonymus japonica 'Silver King'
1 - 2 ft	Dwarf Gardenia	Gardenia jasminoides 'Radicans'
2 - 3 ft	Dwarf Burford Holly	Ilex cornuta 'Burfordii Nana'
2 - 3 ft	Dwarf Chinese Holly	Ilex cornuta 'Rotunda'
1 - 2 ft	Compact Japanese Holly	Ilex crenata 'Compacta'
1 - 3 ft	Dwarf Yaupon Holly	Ilex vomitoria 'Nana'
1 - 2 ft	Primrose Jasmine	Jasminum mesnyi
3 - 4 ft	Texas Sage	Leucophyllum Frutescens
3 - 4 ft	Dwarf Wax Myrtle	Myrica cerifera
1 ft	Dwarf Purple Nandina	Nandina domestica nana 'Purpurea'
2 - 3 ft	Harbor Dwarf Nandina	Nandina domestica nana 'Harbor Dwarf'
2 - 3 ft	Dwarf Oleander	Nerium oleander
1 - 2 ft	Turner's Dwarf Pittosporum	Pittosporum tobira 'Turner's Dwarf'
1 - 2 ft	Wheeler's Dwarf Pittosporum	Pittosporum tobira 'Wheeler's Dwarf'
3 - 4 ft	Fraser's Photinia	Photinia x fraseri
2 - 3 ft	Red Elf Pyracantha	Pyracantha 'Red Elf'
2 - 4 ft	Indian Hawthorne	Raphiolepis indica
2 - 3 ft	Red Spirea	Spiraea x bumalda 'Anthony Waterer'
3 - 4 ft	Spring Bouquet Vib	Viburnum tinus 'Spring Bouquet'

APPENDIX D

SHRUB LIST

Page 2

<u>EXPECTED HEIGHT AFTER 3 YEARS</u>	<u>COMMON NAME</u>	<u>BOTANICAL NAME</u>
<u>EVERGREENS</u>		
6 ft	Red tip Photina	Photinia glabra
6 ft	Chinese photina	Photinia serrulata
6 ft	Waxleaf Ligustrum	Ligustrum japonicum
6 ft	Southern Wax Myrtle	Myrica cerifera

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APPENDIX E

SHRUB PLANTING

I. Shrub Selection

Shrubs planted in public rights-of-way shall be selected from the Parks and Recreation Department Perennial Shrub List (Appendix D). Shrubs planted in other areas may also be selected from that list.

The following factors should be considered when making a selection from the Shrub List for planting:

- A. Hardiness for the specific site selected.
- B. Present and ultimate size, branching habits, and growth rate. The plant shall be at least eighteen inches (18") in height as measured from the surrounding soil line, shall have a minimum eighteen-inch (18") width at the widest portion when planted and shall be capable of growth to not less than thirty inches (30") in height as measured from the surrounding soil line within three annual growing seasons.
- C. Resistance to pests.

II. Shrub Planting

- A. Holes for shrubs should be excavated six inches (6") greater in width than the diameter of the soil ball. The sides of the hole should be vertical and the bottom horizontal. Shrubs should be planted with top of root ball slightly above existing grade. No holes should be left uncovered overnight.
- B. Shrubs should be set in an upright plumb position at a depth slightly higher than grown in the container. Care should be taken not to injure the root system, trunk, or foliage. The trunk should not be used as a lever in positioning or moving the shrub in the planting hole.
- C. Holes should be backfilled with soil and tamped lightly and carefully so as not to damage roots. The shrub should be watered to settle soil around the roots and remove air pockets.
- D. All damaged branches shall be removed.
- E. A minimum three-inch (3") layer of mulch shall be placed loosely at the base to retard weed growth and conserve moisture.

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APPENDIX E
SHRUB PLANTING

Page 2

III. Watering

The following watering schedule may be utilized and revised during prolonged periods of rain or drought.

Initial
Watering
After
Planting

Root zones should be drenched every 7 days for 4 weeks.

November
December
January
February

In the absence of sufficient rainfall, root zones should be drenched on a 21-day watering schedule.

October
March
April

In the absence of sufficient rainfall, root zones should be drenched on a 14-day watering schedule.

May
June
July
August
September

In the absence of sufficient rainfall, root zones should be drenched on a 7-day watering schedule.

016-53-1289

LSP272

APPENDIX F

016-53-1290

LANDSCAPE UNIT COSTS

The following are to be used as installed prices for bonding and deposits purposes, and shall be subject to a cost adjustment.

TREES

15 gallon container:	-\$100
30 gallon container:	-\$225
2"-2.5" caliper, B&B:	-\$200
2.5"--3" caliper, B&B:	-\$275
4" caliper, B&B:	-\$450
6" caliper, machine planted:	-\$650
8" caliper, machine planted:	-\$900

SHRUBS & VINES

1 gallon container:	-\$ 4.50
2 gallon container:	-\$15.00
5 gallon container:	-\$18.00

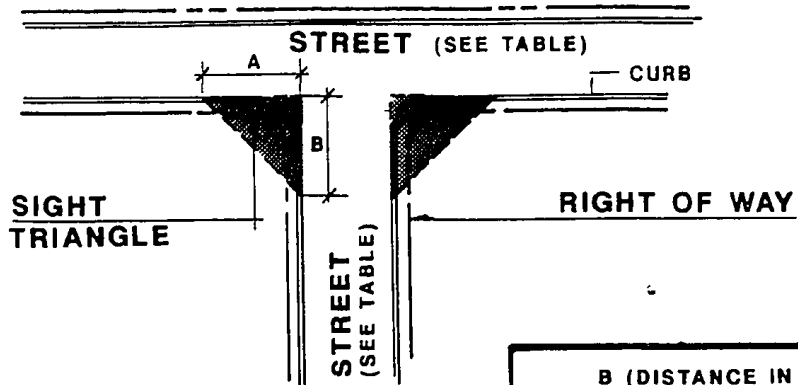
MULCH (FOR BEDS)

Shredded Pine bark:	\$35/cy (cubic yards)
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FENCE

6' high #1 cedar batten board fence	\$11.00 per LF (linear foot)
Gate	\$50.00 each

SIGHT VISIBILITY TRIANGLES



016-53-1291

TYPICAL REQUIREMENTS BY STREET TYPE (MEASURED ALONG THE CURB FACE)

A (DISTANCE IN FEET)		B (DISTANCE IN FEET)	
		LOCAL STREET OR ALLEY	MAJOR THROUGHFARE
25'	LOCAL STREET OR ALLEY	25'	45'
45'	MAJOR THROUGHFARE	25'	45'

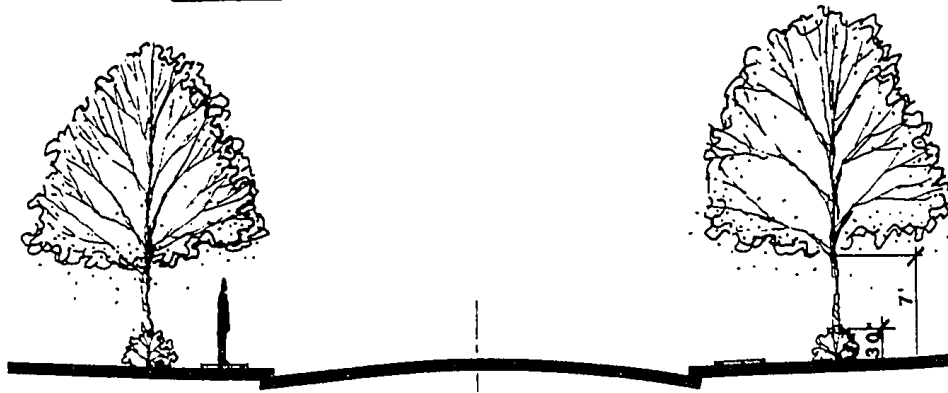
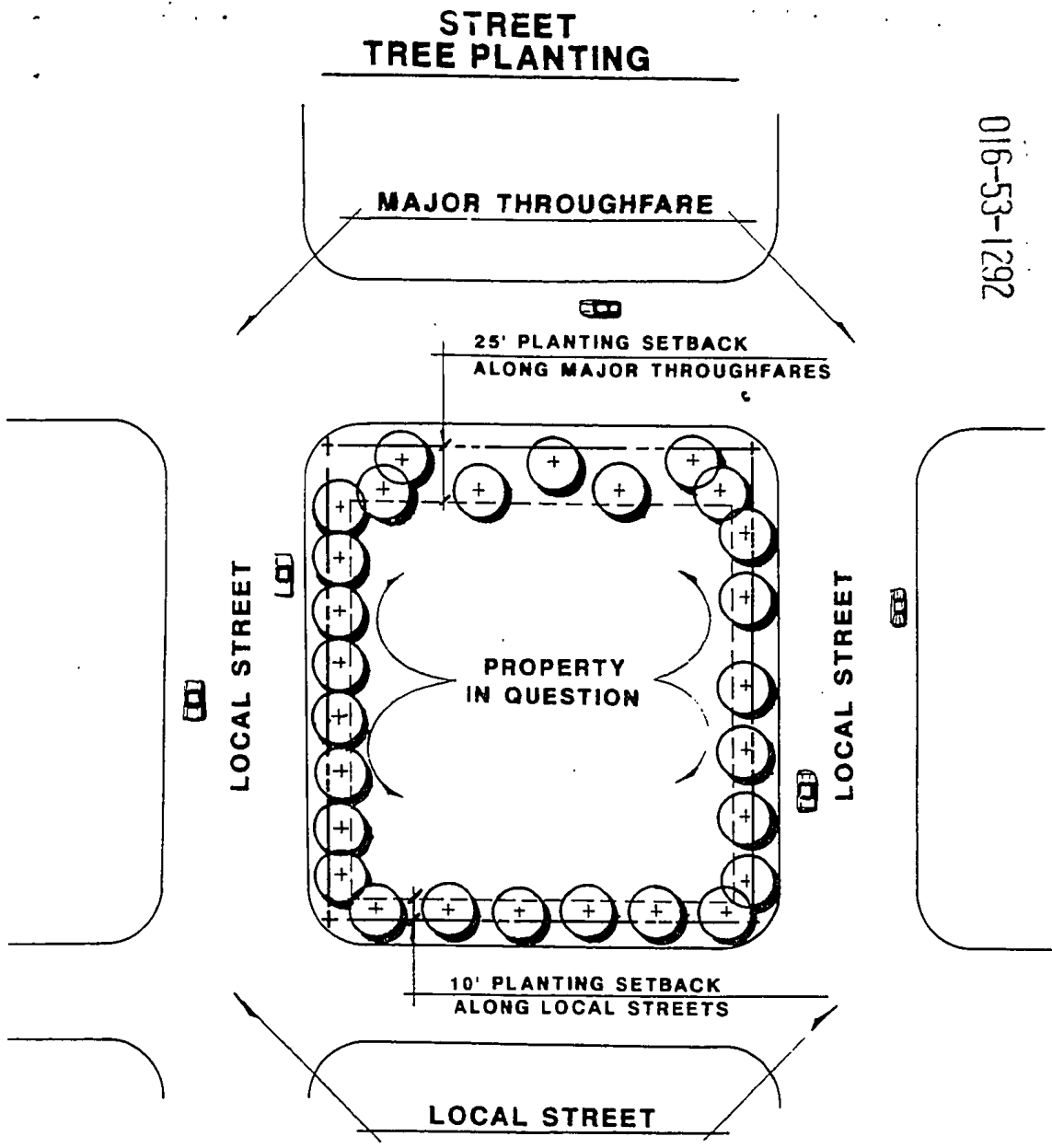


FIGURE A

016-53-1292



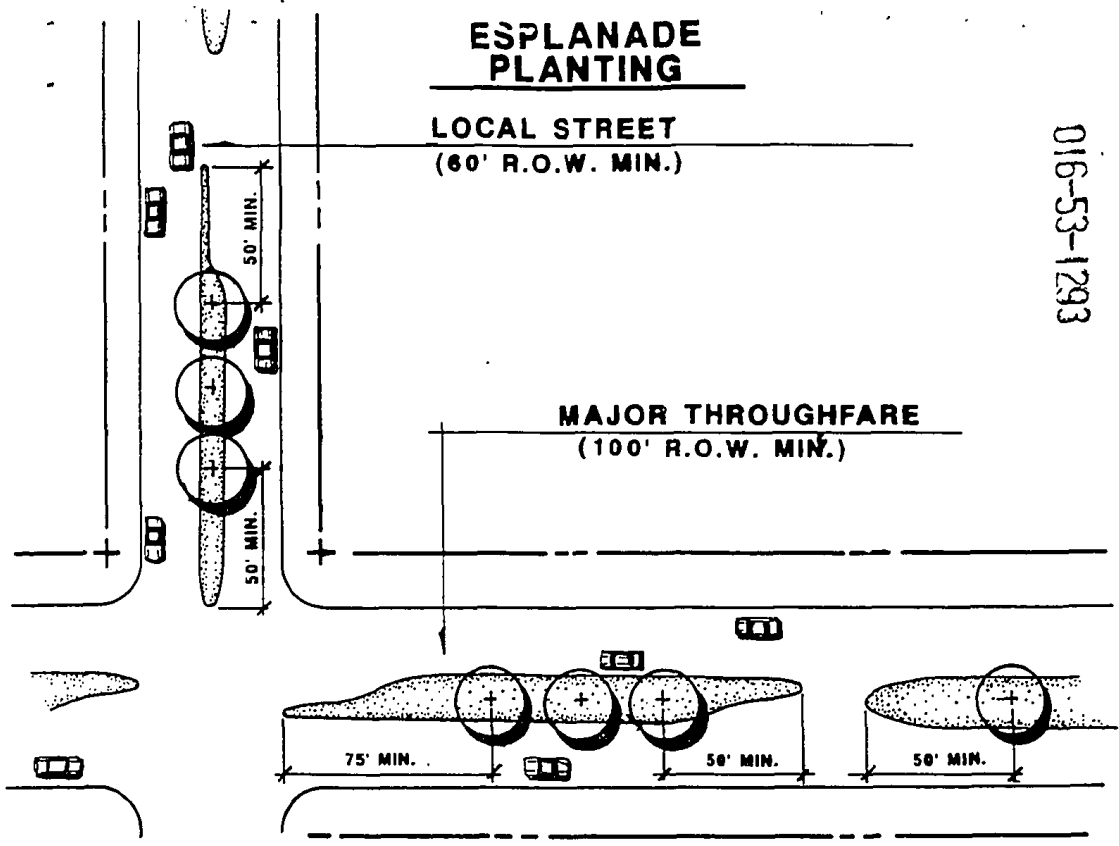
STREET TREE REQUIREMENT

SCALE: 1" = 60'-0"

FORMULA: TOTAL PROPERTY LINE
LENGTH ALONG LOCAL OR MAJOR
THROUGHFARES DIVIDED BY 30

FIGURE B

016-53-1293



TREE LOCATION
APPROX. SCALE: 1" = 50'-0"

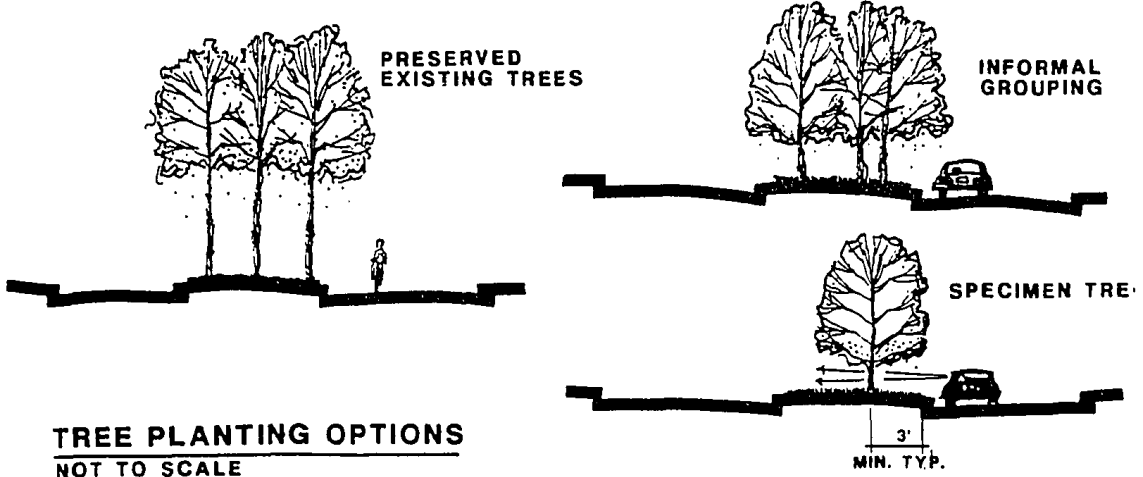
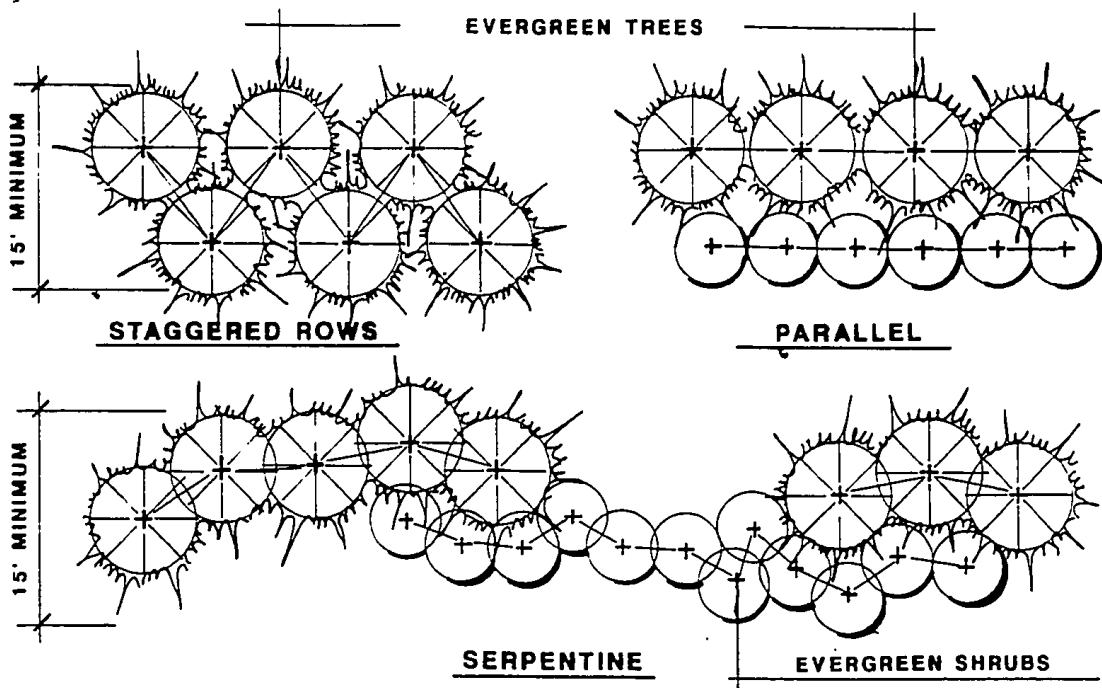


FIGURE C

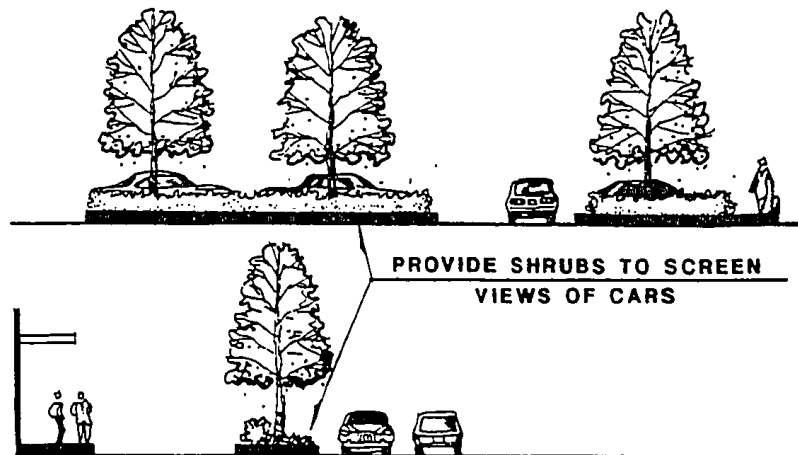
**SCREENING
EVERGREEN & PARKING**

016-53-1294



EVERGREEN BUFFER TECHNIQUES

SCALE: 1" = 10'-0"



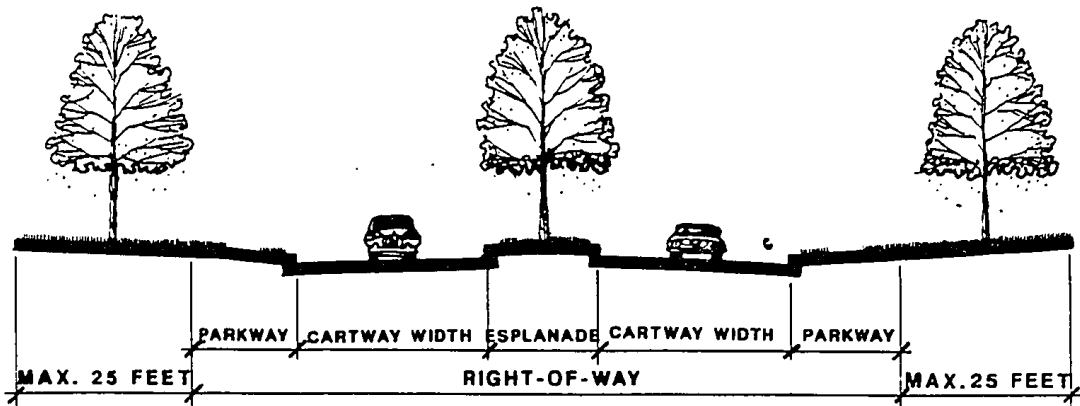
PARKING LOT SCREENS

NOT TO SCALE

FIGURE D

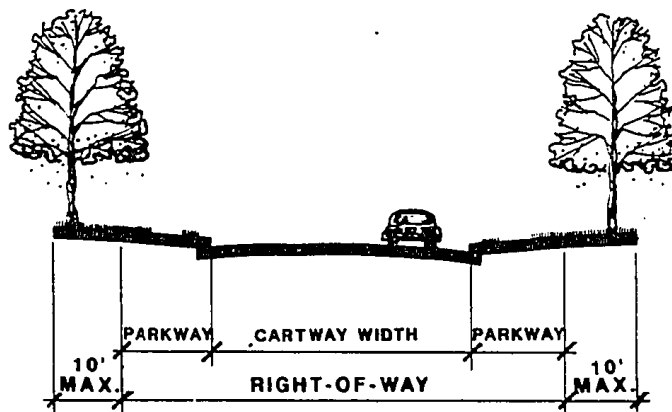
**RIGHTS-OF-WAY
PROFILES**

016-53-1295



MAJOR THROUGHFARE / DIVIDED ROADWAY

APPROX. SCALE: 1" = 20'-0"



LOCAL STREET

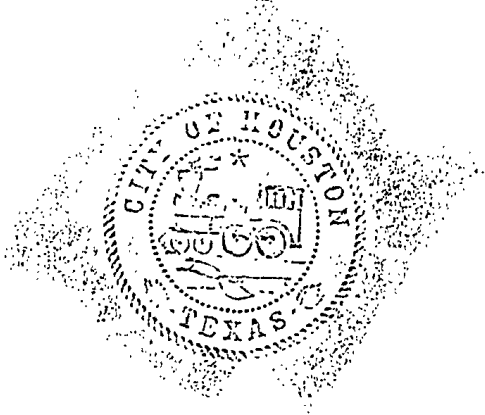
APPROX. SCALE: 1" = 20'-0"

FIGURE E

016-53-1296

I, ANNA RUSSELL, City Secretary of the City of Houston, Texas, do hereby certify that the within and foregoing is a true and correct copy of Ordinance No. 91-1701, passed and adopted by the City Council on the 4th day of December, 1991, as the same appears in the records in my office.

WITNESS my hand and the Seal of said City this 26th day of February, A. D. 1992.



Anna Russell
City Secretary of the City of Houston
Anna Russell

ANY PROVISION HEREIN WHICH RESTRICTS THE SALE, RENTAL, OR USE OF THE DESCRIBED REAL PROPERTY BECAUSE OF COLOR OR RACE IS INVALID AND UNENFORCEABLE UNDER FEDERAL LAW.
THE STATE OF TEXAS
COUNTY OF HARRIS

I hereby certify that this instrument was FILED in File Number Sequence on the date and at the time stamped hereon by me; and was duly RECORDED, in the Official Public Records of Real Property of Harris County, Texas on

FEB 28 1992



Quita Roddenberry
COUNTY CLERK,
HARRIS COUNTY, TEXAS

FILED
92 FEB 28 PM 1:15

Quita Roddenberry
COUNTY CLERK
HARRIS COUNTY TEXAS

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